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SESSIONAL PAPERS

VOLUME 11

FOURTH SESSION OF THE TENTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1907-8



VOLUME XLII



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See also Numerical List Page 5.

ALPHABETICAL INDEX
TO THE
SESSIONAL PAPERS
OF THE
PARLIAMENT OF CANADA

FOURTH SESSION, TENTH PARLIAMENT, 1907-8

A	B
Acetylene Gas Buoys.. 209	British Columbia:—
Adulteration of Food.. 14	Richard L. Drury.. 164
Agriculture, Annual Report.. . . . 15	W. Maxwell Smith.. 111
Alaska Boundary.. 54	Brodeur, Hon. L. P., &c., Travelling
Aluminum Exports and Imports..136, 136a	Expenses.. . . . .109, 109b
Applications for crossing railway	By-Elections, House of Commons.. . 17b
tracks.. 86	
Archives, Canadian.. 18	C
Astronomer, Chief, Report of.. . . 25a	Canada Year Book.. 66
Athabasca Fish Co.. 225	Canadian Manufacturers' Associa-
Auditor General, Annual Report.. . 1	tion.. . . . .234, 234a
	Canadian Pacific Railway:—
B	Business with Interior Department. 45
Bait Freezer and Cold Storage.. . . . 101	Lands sold by.. 69
Banks, Chartered.. 6	Liability for Taxation.. . . . 203
Banks, Unpaid Balances in.. . . . 7	Canadian Transportation.. 21c
Barbados, Trade Conference at.. . . 158	Canal Statistics.. 20a
Bastedo, Samuel Tovel.. 139	Cassels, Hon. Walter.. . . . .182 to 182c
Bate, H. N. & Co.. 199	Cattle Embargo.. 187
Beauharnois Canal.. 83	Census, Agricultural.. 188
Belleville Harbour.. 163	Census, North-west Provinces.. . . 17a
Bell Telephone Co.. 122	Central Experimental Farm.. . . .80, 112
Blunden, Frederick.. 165	Chartered Banks.. 6
Bonds and Securities.. 44	Chinese and Japanese.. . . .74b to 74g
Boone Company.. 177	Civil Service:—
Bounties paid by Government.. . . . 93	Examiners.. 31
Bow River.. 202	Insurance.. 49
Bridge Materials from U. S.. 194	List.. 30
British and Continental Ports.. . . . 21c	Report of Royal Commission . . . 29a
British Canadian Loan and Invest-	Superannuations.. 51
ment Co.. 128	Coal Lands.. . . . .108 to 108h
British Columbia:—	Coal, Timber and Mining Lands. 88 to 88bb
Chinese in Public Schools.. . . . 74	Cold Storage and Bait Freezer.. . . 101
Disallowance.. 84	Cold Storage Report.. 15a
Dominion Lands.. 46	Colonial Conference, 1907.. . . .58, 109a
Indian Reserves.. 169	Colonization Lands.. . . . .155 to 155d
Joly de Lotbinière, Sir Henri.. . . 75	Commissions of Inquiry.. 182d
Metlakatla Indian Reserve.. . . . 89	Congdon, F. T.. . . . .55 to 55f
Natal Act.. 99	Convicts in Penitentiaries.. . . . 179
Patterson, J. W.. 90b	Criminal Statistics.. 17
Revenue and Expenditure.. . . . 219	Customs Department Officers.. . . 156c

D

Dairy and Cold Storage Report..	15a
Delisle, Michel Simeon..	210
Dividends Unpaid in Banks..	7
Dolkese Indians..	197, 197a
Dominion Lands..	90c
Dominion Police..	67
Dredging Work.. 124 to 124c, 141, 141a,	204
Drill Halls..	193
Drysdale, Hon. Arthur..	176
Dunne, M. C..	81a

E

Eclipse Manufacturing Co..	129
Edwards, W. C. & Co..	199
Elections, House of Commons..	17b
Elections, Forms for..	64
Electricity and Fluid Exportation Act	137
Electric Light, Inspection of..	13
Estimates..	3 to 4a
Exchequer Court Rules..	53
Excise Revenue..	12
Expenditure by Government in N.S.	102
Experimental Farms..	16

F

Fast Line of Steamers..	100
Fertilizers, Analysis of..	235
Fishermen, Bounty to..	56 to 56b
Fire Extinguishers..	160, 160a
Fisheries Act, Violation of..	168
Fisheries, Annual Report..	22
Fisheries Treaty..	215, 215a
Fishing Licenses..	143
Forbes, F. F., Judge..	85
Forestry, Report of Supt. of..	25
France and Canada, Commerce..	10a, 10b

G

Garrison Artillery Companies..	196
Gas, Inspection of..	13
Gaudet, Victor, Report of..	211
Geographic Board..	21a
Geological Survey Report..	26
Georgian Bay Ship Canal.. 19a, 178 to 178b	
Government Vessels..	148, 148a, 170
Governor General, Expenditure for office of..	146
Governor General's Warrants..	50
Grain, Movements of..	192
Grain Trade, Report of Royal Com- mission..	59
Grand Trunk Pacific Town and Deve- lopment Co..	90c

G

Grand Trunk Railway:	
Entrance into Toronto..	63
Major's Hill Park Site..	76
Sale of Liquors..	61, 61a
Grazing Lands..	155a

H

Harbour Commissioners..	23
Heath Point..	198
Hillsboro' Bridge..	186
House of Commons:—	
Changes in the Staff..	149
Elections for..	17b
Internal Economy..	37, 37a
Returns presented..	150
Hudson Bay, Railroad to..	138
Huntingdon, Waterway in..	161

I

Immigrants, Expenditure for..	81j
Immigrants in Canada..	81d, 81g
Immigration Agents..	81c, 81b
Immigration Agents in Ontario..	81b, 81h
Immigration from the Orient and India..	36a
Imperial Conference, 1907..	58, 109a
Indian Affairs, Annual Report..	27
Indian Agent Yeomans..	103
Indian Reserves..	159
Industrial Disputes Inspection Act..	131
Inland Revenue, Annual Report..	12
Insurance, Abstract..	9
Insurance, Annual Report..	8
Intercolonial Railway:—	
Accident at Mulgrave..	205b
Belfast and Murray Harbour..	205i
Claims for Damages..	205
Fences..	205g
Freight Rates..	119, 205a
Highway Crossings..	39k, 39l
Locomotives..	205d, 205f
New Accounting System..	205h
Steel Rails..	205e
Trains Breaking Down..	205c
Various Expenditures..	78
Winter and Summer Tariffs.....	127
Interior, Annual Report..	25
International Boundary..	54a, 54b
International Waterways Commission.	19b, 19c

J

Japanese and Chinese..	74b to 74g
Joly de Lotbinière, Sir Henri..	75
Justice, Annual Report..	34

L

Labour Department, Annual Report of	36
Lake, Major General, Memorandum of	228
Lands, Dominion..	90c
La Société Canadienne..	200
Library of Parliament, Annual Report	33
List of Shipping..	21b

M

Madden, Report of Justice..	60
Mail Subsidies to Steamships..	82
Manitoba Homestead Entries..	155b
Marconi Stations..	183, 183a
Marine and Fisheries Department, Bookkeeping in..	142
Marine, Annual Report..	21
Measures, Inspection of..	13
Meat and Food Inspection Act..	91, 134, 134a
Members of Parliament appointed to Offices..	52, 230
Metlakatla and Songhees Indians..	197b
Midland Towing and Wrecking Co..	123
Military Institutions, Provisions for..	104
Military Service, Appointments to the	94
Militia, Colonels in the..	73
Militia Council, Annual Report..	35
Militia Dress Regulations..	41a
Militia General Orders..	41
Miller, N. B..	81
Mill Settlement, West..	171
M. J. Wilson Cordage Co..	113
Mines, Report of Department..	26 to 26b
Mining, Coal and Timber Lands	88 to 88bb
Mint, Royal..	71
Moncton Car Works..	107
Montcalm-Milwaukee Collision..	221
Montreal Examining Warehouse..	120
Montreal Turnpike Trust..	126, 126a
Mounted Police..	28
Mulgrave, Nova Scotia..	205b

Mc

McDonald, A. G..	81i
McIlreith, R. T..	181, 181a

N

National Transcontinental Railway.	39 to 39h
Engineering Staff..	62a
Resignation of Mr. Hodgins..	62
Routes in New Brunswick..	180
Values of Tenders..	62b
New Brunswick and Nova Scotia Mails	171c
Newspapers, Money paid to..	174 to 174b
North Grove, Grenville..	171a
Nova Scotia, Expenditure by govern- ment in..	102

O

Office Specialty Co..	184
Opium Traffic..	36b, 36c
Orders in Council..	47
Oriental Labourers, Report of W. L. M. King..	74a, 74h
Ottawa Improvement Commission..	70
Onimet, Judge J. A..	65

P

Peace River Valley..	106
Penitentiaries, Annual Report..	34
Petit Rocher Breakwater..	147, 147a
Petrel, Steamer..	218
Pevelan & Co..	72
Piers or Docks in Ontario..	92a
Police, Dominion..	67
Police, Royal Northwest Mounted....	28
Port Burwell Harbour..	217
Port Maitland..	92, 92a
Postal Charges....	171i
Postal Service Delays..	171e
Postmaster General, Annual Report.	24
Pound Net Licenses ..	130
Power, Augustus, Report of..	55
Prince Edward Island:—	
Alex. McLeod..	171h
Archibald McDonald..	171d
Branch Railway Lines..	190
Expenditure..	216
Freight and Passenger Rates..	205a
Freight on Winter Steamers..	110
Leasing Properties..	145
Lobster Fishery..	231a
Mail Service..	171j
Mrs. Mary Finlay..	171b
Removal of Post Office..	171g
Rights of Vessels..	208
Terms of Union..	189
Wharf at Little Sands..	125
Winter Communication..	212
Withdrawal of Winter Steamers..	110a
Printing and Lithographing..	220
Public Accounts, Annual Report ..	2
Publications having Newspaper Rate.	195
Public Buildings..	229, 232
Public Printing and Stationery ..	32
Public Works, Annual Report..	19

Q

Quebec Bridge:—

Report of Royal Commission..	154
Reports and Orders in Council..	154a
Stock Subscribed..	154b
Quebec, Founding of..	207
Quebec Harbour..	233

R

Railway Commissioners, Report of....	20c
Railway Crossings.. . . .39 <i>i</i> , <i>k</i> and <i>l</i> ,	115
Railways and Canals, Annual Report.	20
Railways not under Commissioners..	39 <i>j</i>
Railway Statistics..	20b
Reductions and Remissions.. . . .	95
Regina Lands District..	77
Robertson, E. Blake, Report of.. . . .	81 <i>k</i>
Robins Irrigation Co...	206
Ross Rifle Company.... 68 to	68 <i>d</i>
Ross Rifle Hand-book..	42
Royal Northwest Mounted Police.. . .	28

S

Sabourin, Major..	153
Samovici, A., and Bolocan, H.. . . .	116
Saskatchewan, Province of:—	
Fishing Licenses..	105, 151
Homestead Entries..	90, 90 <i>a</i>
Saskatchewan Act..	185
Valley Land Co..	90 <i>d</i>
Savard, Doctor Edmond..	222
Secretary of State, Annual Report..	29
Seed Grain..	25 <i>d</i>
Seizures by Inland Revenue Department..	156 to 156 <i>b</i>
Senate:—	
Appointments to..	52, 114
Bills sent from..	121
Committee on Railways, &c... . .	166
Debates..	135
Senators appointed to office.. . . .	230
Shareholders in Chartered Banks.. .	6
Shepley, Mr., K.C...	175
Shipping, List of..	21b
Six Nations Indians..	197 <i>c</i>
Sorel, Piers at..	167
Spain, Commander, Expenses of....	162
Standard Chemical Co...	72
St. Andrews Rapids..	96
Steamboat Inspection..	23 <i>a</i>
Steamship Fast Line..	100
Steamship Traffic..	10 <i>c</i>
Steel Concrete Co...	172
St. Gabriel de Brandon..	171 <i>f</i>
St. Lawrence River, Damming of..110,	140 <i>a</i>
Supplies for Department of Marine and Fisheries..	214
Supreme Court, N.S., Suit in....	117
Sutherland Rifle Sight Co...	226

T

Temperance Colonization Co... . . .	223
Timber, Application to cut.. . . .	78
Timber, Coal and Mining Lands..88 to	88 <i>bb</i>
Tobacco Industry..	157, 157 <i>a</i>
Tonnage at St. John and Halifax....	227
Topographical Surveys, Report on....	25 <i>b</i>
Toronto Harbour..	213
Trade and Commerce, Annual Report	10
Trade and Navigation, Annual Report	11
Trade Unions..	43
Transcontinental Railway.. . . .39 to	39 <i>h</i>
Transport on Government Account..	224
Treaty between Great Britain and United States..	215, 215 <i>a</i>
Treaty Powers..	144
Trent Canal..	133

U

Unclaimed Balances in Banks.. . . .	7
Unforeseen Expenses....	48
United States Warships..	191

V

Valleyfield, Regiment in..	153 <i>a</i>
Volunteer Camps, Contracts for.. . .	118

W

Waugh, James S...	81 <i>e</i>
Weights, Measures, &c...	13
Wilberforce, Dam at..	132
Windsor, Detroit and Belle Isle Ferry Co...	98

Y

Yukon:—	
Criminal Conspiracy..	97
Estates of Deceased Persons.. . .	55 <i>b</i>
Finnie, O. S...	152
Lands at Whitehorse..	55 <i>e</i>
Lord's Day Act..	57
Mining Regulations..	201
Morality of the Yukon..	55 <i>d</i>
Ordinances..	40
Placer Claims..	173, 173 <i>a</i>
Report of Commissioner..	25 <i>c</i>
Report of Mr. Beddoe..	55 <i>h</i>
Rev. John Pringle..	55 <i>c</i> , 55 <i>f</i>
Right to divert water..	87
W. H. P. Clement..	55 <i>i</i>
W. W. B. McInnes..	55 <i>g</i>

See also **Alphabetical Index**, page 1.

LIST OF SESSIONAL PAPERS

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

CONTENTS OF VOLUME 1.

(This volume is bound in two parts.)

1. Report of the Auditor General for the nine months ended 31st March, 1907. Partial report presented 28th November, 1907, by Hon. W. S. Fielding; also 2nd December and 17th December *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 2.

2. Public Accounts of Canada, for the fiscal period of nine months ended 31st March, 1907. Presented 28th November, 1907, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.
3. Estimates of the sums required for the services of Canada for the year ending 31st March, 1909. Presented 11th December, 1907, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.
- 3a. Further Supplementary Estimates for the year ending 31st March, 1909. Presented 9th July, 1908, by Hon. W. S. Fielding... *Printed for both distribution and sessional papers.*
4. Supplementary Estimates for the twelve months ending 31st March, 1908. Presented 3rd February, 1908, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.
- 4a. Supplementary Estimates for the year ended 31st March, 1908. Presented 16th March, 1908, by Hon. W. S. Fielding... *Printed for both distribution and sessional papers.*
5. (No issue.)
6. List of Shareholders in the Chartered Banks of Canada, as on the 31st December, 1907. Presented 8th May, 1908, by Hon. S. A. Fisher.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 3.

7. Report of dividends remaining unpaid, unclaimed balances and unpaid drafts and bills of exchange in Chartered Banks of Canada, for five years and upwards, prior to 31st December, 1907. Presented 29th June, 1908, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 4.

8. Report of the Superintendent of Insurance for the year ended 31st December, 1907.
Printed for both distribution and sessional papers.
9. Abstract of Statements of Insurance Companies in Canada, for the year ended 31st December, 1907. Presented 14th May, 1908, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 5.

10. Report of the Department of Trade and Commerce, for the fiscal year (nine months) ended 31st March, 1907. Part I.—Canadian Trade. Presented 29th November, 1907, by Hon. W. S. Fielding. Part II.—Trade of Foreign Countries and Treaties and Conventions. Presented 11th March, by Hon. W. Paterson.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 6.

- 10a. Convention respecting the Commercial Relations between France and Canada, entered into at Paris on the 19th day of September, 1907, between His Majesty and the President of the French Republic. Presented 28th November, 1907, by Hon. W. S. Fielding.

Printed for both distribution and sessional papers.

- 10b. Correspondence and memoranda in connection with the Convention of 1907, respecting the commercial relations between France and Canada. Presented 9th January, 1908, by Hon. W. S. Fielding. *Printed for both distribution and sessional papers.*

- 10c. Supplement to Report of Department of Trade and Commerce, with statistics showing steamship traffic, &c. Presented 17th March, 1908, by Sir Wilfrid Laurier.

Printed for both distribution and sessional papers.

11. Tables of the Trade and Navigation of Canada, for the nine months of the fiscal year ended 31st March, 1907. Presented 2nd December, 1907, by Hon. W. Paterson.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 7.

12. Inland Revenues of Canada. Excise, &c., for the nine months ended 31st March, 1907. Presented 28th November, 1907, by Hon. W. Templeman.

Printed for both distribution and sessional papers.

13. Inspection of Weights, Measures, Gas and Electric Light, for the nine months ended 31st March, 1907. Presented 28th November, 1907, by Hon. W. Templeman.

Printed for both distribution and sessional papers.

14. Report on Adulteration of Food, for the nine months ended 31st March, 1907. Presented 28th November, 1907, by Hon. W. Templeman.

Printed for both distribution and sessional papers.

15. Report of the Minister of Agriculture, for the year ended 31st March, 1907. Presented 2nd December, 1907, by Hon. S. A. Fisher.

Printed for both distribution and sessional papers.

- 15a. Report of the Dairy and Cold Storage Commissioner for the year ending 31st March, 1907. Presented 10th February, 1908, by Sir Wilfrid Laurier.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 8.

16. Report of the Directors and Officers of the Experimental Farms for 1906. Presented 10th January, 1908, by Hon. S. A. Fisher.

Printed for both distribution and sessional papers.

17. Criminal Statistics for the year ended 30th September, 1907.

Printed for both distribution and sessional papers.

- 17a. Census of Population and Agriculture of the Northwest Provinces: Manitoba, Saskatchewan and Alberta, 1906. Presented 18th February, 1908, by Hon. S. A. Fisher. *See 17a, 1907.*

- 17b. Return of By-Elections for the House of Commons of Canada, held during the year 1907. Presented 6th March, 1908, by Sir Wilfrid Laurier.

Printed for both distribution and sessional papers.

18. Canadian Archives. *See No. 15, page lv.*

CONTENTS OF VOLUME 9.

- 19.** Report of the Minister of Public Works, for the fiscal period ended 31st March, 1907. Presented 2nd December, 1907, by Hon. W. Pugsley.
Printed for both distribution and sessional papers.
- 19a.** Georgian Bay Ship Canal Survey. Report on the Precise Levelling; from 1904 to 1907. Published by the Department of Public Works.
Printed for both distribution and sessional papers.
- 19b.** Progress Report of the International Waterways Commission. Supplementary Report to 31st December, 1907. Presented 5th June, 1908, by Sir Wilfrid Laurier.
Printed for both distribution and sessional papers.
- 19c.** Supplementary Report of the International Waterways Commission, 1908.
Printed for both distribution and sessional papers.
- 20.** Report of the Department of Railways and Canals, for the fiscal period from 1st July, 1906, to 31st March, 1907. Presented 29th November, 1907, by Hon. G. P. Graham.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 10.

- 20a.** Canal Statistics for the season of navigation, 1906.
Printed for both distribution and sessional papers.
- 20b.** Railway Statistics of Canada for the year ended 30th June, 1907. Presented 16th January, 1908, by Hon. G. P. Graham.
Printed for both distribution and sessional papers.
- 20c.** Second Report of the Board of Railway Commissioners for Canada, 1st April, 1906, to , 31st March, 1907. Presented 29th November, 1907, by Hon. G. P. Graham.
Printed for both distribution and sessional papers.
- 21.** Report of the Department of Marine and Fisheries (Marine) for 1907. Presented 18th December, 1907, by Hon. L. P. Brodeur.
Printed for both distribution and sessional papers.
- 21a.** Seventh Report of the Geographic Board of Canada, 1907-8.
Printed for both distribution and sessional papers.
- 21b.** List of Shipping issued by the Department of Marine and Fisheries, being a list of vessels on the registry books of Canada, on the 31st December, 1907. Presented 24th June, 1908, by Hon. L. P. Brodeur...
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 11.

- 21c.** Report on British and Continental Ports, with a view to the development of the port of Montreal and Canadian transportation.
Printed for both distribution and sessional papers.
- 22.** Report of the Department of Marine and Fisheries (Fisheries) for 1907. Presented 18th December, 1907, by Hon. L. P. Brodeur.
Printed for both distribution and sessional papers.
- 23.** Report of the Harbour Commissioners. &c.
Printed for both distribution and sessional papers.
- 23a.** Report of the Chairman of the Board of Steamboat Inspection, 1907. Presented 27th February, 1908, by Hon. L. P. Brodeur.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 12.

- 24.** Report of the Postmaster General, for the nine months ended 31st March, 1907. Presented 3rd December, 1907, by Sir Wilfrid Laurier.
Printed for both distribution and sessional papers.
- 25.** Report of the Department of the Interior, for the fiscal period from 1st July, 1906, to 31st March, 1907. Presented 29th November, 1907, by Hon. F. Oliver.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 13.

- 25a.** (1906) Report of the Chief Astronomer for the year ended 30th June, 1903. Presented 17th December, 1907, by Hon. F. Oliver...*Printed for both distribution and sessional papers.*
- 25a.** (1907) Report of the Chief Astronomer for the nine months ending 31st March, 1907.
Printed for both distribution and sessional papers.
- 25b.** Annual Report of the Topographical Surveys Branch (Department of the Interior) 1906-7. Presented 8th June, 1908, by Hon. F. Oliver.
Printed for both distribution and sessional papers.
- 25c.** Report of the Commissioner of the Yukon Territory, for the year ended 31st March, 1908....*Printed for both distribution and sessional papers.*
- 25d.** Correspondence and papers relating to Seed Grain in Saskatchewan and Alberta. Presented 18th July, 1908, by Hon. F. Oliver.
Printed for both distribution and sessional papers.
- 26.** Summary Report of the Department of Mines (Geological Survey), for the calendar year 1907. Presented 16th January, 1908, by Hon. W. Templeman.
Printed for both distribution and sessional papers.
- 26a.** Summary Report of the Mines Branch of the Department of Mines, for the fiscal year 1907-8. Presented 17th July, 1908, by Hon. W. Templeman.
Printed for both distribution and sessional papers.
- 26b.** Annual Report on the Mineral Production in Canada, during the calendar year 1906.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 14.

- 27.** Report of the Department of Indian Affairs, for the year ended 31st March, 1907. Presented 29th November, 1907, by Hon. F. Oliver.
Printed for both distribution and sessional papers.
- 28.** Report of the Royal Northwest Mounted Police, 1907. Presented 29th January, 1908, by Sir Wilfrid Laurier...*Printed for both distribution and sessional papers.*
- 29.** Report of the Secretary of State of Canada, for the year 1907.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 15.

- 29a.** Report of the Royal Commission on the Civil Service, with appendices and evidence taken before the Commissioners. Presented 26th March, 1908, by Hon. W. S. Fielding; also Analytical Index of evidence and memorials.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 16.

- 29a.** Report of the Royal Commission on the Civil Service—*Continued.*
- 30.** Civil Service List of Canada, 1907. Presented 3rd December, 1907, by Sir Wilfrid Laurier.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 17.

- 31.** Report of the Board of Civil Service Examiners, for the year ended 31st December, 1907. Presented 8th May, 1908, by Hon. S. A. Fisher.
Printed for both distribution and sessional papers.
- 32.** Annual Report of the Department of Public Printing and Stationery, 1907. Presented 11th May, 1908, by Hon. S. A. Fisher...*Printed for both distribution and sessional papers.*
- 33.** Report of the Joint Librarians of Parliament for the year 1907. Presented 28th November, 1907, by the Hon. the Speaker...*Printed for sessional papers.*

 CONTENTS OF VOLUME 17—*Continued.*

34. Report of the Minister of Justice as to Penitentiaries of Canada, for the nine months ended 31st March, 1907. Presented 4th December, 1907, by Hon. J. Bureau.
Printed for both distribution and sessional papers.
35. Annual Report of the Militia Council of Canada, 1907. (Interim Report presented 6th March, 1908.)*Printed for both distribution and sessional papers.*
36. Report of the Department of Labour, for the nine months ended 31st March, 1907. Presented 18th December, 1907, by Sir Wilfrid Laurier.
Printed for both distribution and sessional papers.
- 36a. Report of W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, on his mission to England to confer with the British authorities on the subject of immigration to Canada from the Orient, and immigration from India, in particular
Printed for both distribution and sessional papers.
- 36b. Report by W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, on the need for the suppression of the opium traffic in Canada. Presented 3rd July, 1908, by Hon. R. Lemieux.*Printed for both distribution and sessional papers.*
- 36c. Return to an address of the Senate, dated 16th July, for all correspondence, reports, memorials and protests forwarded to the Government in connection with the opium trade in Canada, whether asking for the suppression of said trade or otherwise. Presented 18th July, 1908.—Hon. Sir Mackenzie Bowell.*Not printed.*
37. Minutes of proceedings of the Board of Internal Economy of the House of Commons, pursuant to Rule of the House, number 9. Presented 2nd December, 1907, by the Hon. The Speaker.*Not printed.*
- 37a. Return to an order of the House of Commons, dated 10th February, 1908. Minutes of proceedings of the Board of Internal Economy of the House of Commons from 1st January, 1902, to 1st January, 1906. Presented 6th March, 1908.—Mr. Roche (Marquette).
Not printed.
38. A copy of the new rules of the Supreme Court of Canada, promulgated on the 19th day of June, 1907. Presented 28th November, 1907, by the Hon. The Speaker.*Not printed.*
- 38a. Rules and orders of the Supreme Court of Judicature for Ontario, passed on the 27th March, 1908, under the power conferred by the Criminal Code. Presented 12th May, 1908, by Hon. A. B. Aylesworth.*Not printed.*
39. Return to an order of the House of Commons, dated 6th July, 1908, showing the length of the National Transcontinental Railway from Moncton, New Brunswick, to Prince Rupert, in the province of British Columbia, and the estimated cost of the same. Presented 6th July, 1908.—Hon. G. P. Graham.*Not printed.*
- 39a. Report of the Commissioners of the Transcontinental Railway for the fiscal period ending 31st March, 1907. Presented 29th November, 1907, by Hon. G. P. Graham.
Printed for both distribution and sessional papers.
- 39b. Supplementary return to an order of the House of Commons, dated 12th December, 1907, showing: 1. The estimated quantities used by the Transcontinental Railway Commission for arriving at the moneyed values of the tenders for the construction of the 50 miles, more or less, from Moncton westerly; for the construction of 62 miles, more or less, from Grand Falls westerly; from the south side of the St. Lawrence river, easterly 150 miles; for the 45 miles more or less westerly from near La Tuque; and for the 150 miles easterly from near Abitibi, known as the Abitibi section. 2. The various prices which each tenderer placed opposite the several items in the schedule or form of tender. 3. The total number so ascertained of each tender. Presented 24th January, 1908.—Mr. Schell (Glengarry).*Not printed.*
- 39c. Return to an order of the House of Commons, dated 8th January, 1908, for a copy of all tenders received up to date (30th November, 1907) by, and now under contract to, the commission appointed for the construction of that portion of the line of the

CONTENTS OF VOLUME 17—*Continued.*

Transcontinental Railway between the city of Winnipeg, in the province of Manitoba, and the city of Moncton, in the province of New Brunswick; that such copy or return shall contain (1) signatures attached to the tenders; (2) the total amount of each tender as "moneyed out" by the said commission; (3) the quantity of each class or kind of material as used by the said commission in figuring out the cost; (4) the price per unit of prices submitted by those who responded to the invitation for tenders; and (5) the total cost of each item in the schedule, which, added together, gives the grand total cost of each undertaking tendered for. Presented 24th January, 1908.—*Mr. Taylor* *Not printed.*

39d. Return to an order of the House of Commons, dated 29th January, 1908, showing to whom, and when, the National Transcontinental Railway Commission awarded contracts for the transportation of supplies, on District E, between the following points, namely:—(a) Grasset to Cache 9, (b) Montizambert to New Cache 9 A, on Negogami river; (c) Jackfish to Caches 10, 11 A, and 12 (d) Nipigon to Caches 12 A, 13, 14, 15, Ombabika and Wabinosh warehouses and Cache 16, on District F; the distances in each contract, the contract rate and terms; the amounts that have been paid to date on each contract; who erected the cache and dwelling house at the line crossing on Kebinakagami river; also the new buildings at line crossing of Negogami river, and the warehouses at Jackfish; the cost of these buildings, respectively; and if tenders were invited for above transportation and building contracts. Presented 6th February, 1908.—*Mr. Boyce.*
Not printed.

39e. Return to an order of the House of Commons, dated 3rd February, 1908, for a copy of the clauses and conditions, regulations and specifications contained in the contracts, in virtue of which the National Transcontinental Railway is being built, and that are for the purpose of safeguarding, securing and guaranteeing the suppliers of the contractors, to whom the work of construction has been accorded, the payment of their claims against the said contractors; likewise a list of the contracts signed, up to the present, in which appear the said clauses guaranteeing or securing the said suppliers the payment of their said bills or claims. Presented 13th February, 1908.—*Mr. Morin.*
Not printed.

39f. Return (in part) to an Address of the House of Commons, dated 23rd March, 1908, for a copy of all orders in council, reports, surveys, contracts, tenders, agreements, books, memoranda, documents, and papers of every kind, showing, relating to, or concerning the length of the National Transcontinental Railway from (a) Winnipeg to Quebec, (b) Quebec to Moncton, and the estimated or probable average cost per mile of the same, and all other information relating to the total cost or the cost per mile of the said railway. Presented 21st April, 1908.—*Mr. Borden (Carleton)* *Not printed.*

39g. Letters from the chairman of the Board of Commissioners of the Transcontinental Railway, the chief engineer and others, in connection with certain allegations made by Major A. E. Hodgins, late district engineer of Section F, Transcontinental Railway. Presented 24th April, 1908, by Sir Wilfrid Laurier *Not printed.*

39h. Copy of the commission appointing Lucien Pacaud, Esquire, of the city of Quebec, as police magistrate, to carry out the law against the sale of intoxicating liquors within certain limits, along the line of the eastern extension of the Transcontinental Railway. Presented 8th May, 1908, by Hon. A. B. Aylesworth *Not printed.*

39i. Return to an order of the Senate, dated 1st April, 1908, based on the records in the offices of the Railway Commission, showing the total number of persons killed or injured by being struck by engines or trains on highway crossings, said return to show the number of persons so killed or injured on the lines of each railway company separately for the years ending 31st March, 1905, 1906 and 1907, such return to include all persons killed or injured as above described irrespective of any contention of the railway companies or opinion of the officers of the Railway Commission as to the legal rights of the said persons to use the highway crossing at the time of the accidents. Presented 12th May, 1908.—*Hon. Mr. McKay (Truro)* *Not printed.*

CONTENTS OF VOLUME 17—*Continued.*

- 39j.** Return to an order of the Senate, dated 9th April, 1908, giving a list of all railways in Canada which are not under the control or jurisdiction of the Board of Railway Commissioners; and stating in each case the reason why the railway is not controlled by the commission. Presented 12th May, 1908.—*Hon. Mr. McKay (Truro)*...*Not printed.*
- 39k.** Return (in part) to an order of the Senate, dated 27th March, 1908, showing, separately, the highway crossings at rail level on all railways, except railways under construction, within the jurisdiction of the Railway Commission in respect of which highway crossings, protection has been ordered by the board since its organization, said return to give the character of the protection ordered in each case, the name of the railway company, the local designation of each highway crossing, and the county and province in which it is situated, and the date of the order and regulation in respect thereof; also a similar return giving the highway crossings ordered to be protected by the proper authority in each case on all railways not under the control of the board, including the Intercolonial Railway, and including orders made regarding railways under construction; also a similar return respecting all highway crossings, which had orders and regulations in respect to them in force, on the 1st day of February, 1904. Presented 18th July, 1908.—*Hon. Mr. Ferguson*...*Not printed.*
- 39l.** Supplementary Return to No. 39k. Presented 4th June, 1908...*Not printed.*
- 40.** Ordinances of the Yukon Territory passed by the Yukon Council in the year 1907. Presented 3rd December, 1907, by Sir Wilfrid Laurier...*Not printed.*
- 41.** General Orders issued to the militia between 2nd November, 1906, and 1st November, 1907. Presented 9th December, 1907, by Sir Frederick Borden...*Not printed.*
- 41a.** Dress Regulations for the Canadian militia, 1907. Presented 9th December, 1907, by Sir Frederick Borden...*Not printed.*
- 42.** Ross Rifle Hand-book, 1907. Presented 9th December, 1907, by Sir Frederick Borden.
Not printed.
- 43.** Return under chapter 125 (R.S.C.), 1906, intituled: "An Act respecting Trades Unions," submitted to Parliament in accordance with section 33 of the said Act. Presented 9th December, 1907, by Sir Wilfrid Laurier...*Not printed.*
- 44.** A detailed statement of all bonds or securities registered in the Department of the Secretary of State of Canada, since last return, 4th December, 1906, submitted to the Parliament of Canada under section 32, chapter 19, of the Revised Statutes of Canada, 1906. Presented 9th December, 1907, by Sir Wilfrid Laurier...*Not printed.*
- 45.** Return (in so far as the Department of the Interior is concerned) of copies of all orders in council, plans, papers, and correspondence which are required to be presented to the House of Commons, under a resolution passed on 20th February, 1882, since the date of the last return, under such resolution. Presented 11th December, 1907, by Hon. F. Oliver...*Not printed.*
- 46.** Return of orders in council which have been published in the *Canada Gazette* and in the *British Columbia Gazette*, between 1st December, 1906, and 1st December, 1907, in accordance with provisions of 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 11th December, 1907, by Hon. F. Oliver...*Not printed.*
- 47.** Return of orders in council which have been published in the *Canada Gazette* between 1st December, 1906, and 1st December, 1907, in accordance with the provisions of section 8 of chapter 55 of the Revised Statutes of Canada, 1906. Presented 11th December, 1907, by Hon. F. Oliver...*Not printed.*
- 48.** Statement of expenditure on account of miscellaneous unforeseen expenses from the 1st April, 1907, to the 28th November, 1907, in accordance with the Appropriation Act of 1907. Presented 11th December, 1907, by Hon. W. S. Fielding...*Not printed.*

CONTENTS OF VOLUME 17—*Continued.*

49. Statement in pursuance of section 17 of the Civil Service Insurance Act, for the nine months ending 31st March, 1907. Presented 11th December, 1907, by Hon. W. S. Fielding. *Not printed.*
50. Statement of Governor General's Warrants issued since the last session of parliament, on account of the fiscal year 1907-8. Presented 11th December, 1907, by Hon. W. S. Fielding. *Not printed.*
51. Statement of superannuations and retiring allowances in the civil service during the year ended 31st December, 1907, showing name, rank, salary, service, allowance and cause of retirement of each person superannuated or retired, also whether vacancy filled by promotion or by new appointment, and salary of any new appointee. Presented 11th December, 1907, by Hon. W. S. Fielding. *Not printed.*
52. Return to an address of the House of Commons, dated 11th December, 1907, showing: 1. The names (a) of members of parliament and (b) ex-members of parliament who have been appointed to the Senate by the present administration, distinguishing between classes (a) and (b), giving the date of retirement in class (b) and date of appointment in all cases. 2. The names of members of parliament and of ex-members of parliament appointed to offices of emolument under the Crown by the present administration, distinguishing between the two classes and giving dates as in paragraph one mentioned. 3. The names of senators and ex-senators appointed to offices of emolument under the Crown by the present administration, distinguishing between the two classes and giving dates as in paragraph one mentioned. Presented 12th December, 1907.—*Mr. Lennox*. *Not printed.*
53. Exchequer Court rules (amended), general order of the 12th September, 1907. Presented 12th December, 1907, by Sir Wilfrid Laurier. *Not printed.*
54. Copy of articles of convention of the 21st August, 1906, between the United States and Great Britain, as to the demarcation of the boundary line between Alaska in the United States and the British possessions in North America. Presented 16th December, 1907, by Hon F. Oliver. *Printed for sessional papers.*
- 54a. Copy of a treaty between Great Britain and the United States providing for the more complete definition and demarcation of the international boundary between the Dominion of Canada and the United States, signed at Washington on 11th April, 1908. Presented 19th May, 1908, by Sir Wilfrid Laurier. *Printed for both distribution and sessional papers.*
- 54b. Correspondence, orders in council and despatches in connection with the negotiation of a treaty between Great Britain and the United States for the definition and demarcation of the international boundary between Canada and the United States. Presented 4th June, 1908, by Sir Wilfrid Laurier. *Printed for both distribution and sessional papers.*
55. Report of the investigation held last winter by Augustus Power, K.C., of the Justice Department, in respect of Mr. F. T. Congdon. Presented 16th December, 1907, by Hon. F. Oliver. *Not printed.*
- 55a. (1) Return to an order of the House of Commons, dated 13th January, 1908, showing all correspondence, petitions, statements, reports and papers having any relation to the claim of Mrs. Louise F. Wiley, and her infant daughter, concerning certain mining claims held by her husband in the Yukon, and which on his death without will are allowed to have gone into the possession or trusteeship of Frederick Tennyson Congdon, then public administrator in the Yukon, under appointment of the Dominion government, and all correspondence, reports, and papers, bearing upon Mr. Congdon's examination, defence and connection therewith. Presented 24th February, 1908.—*Mr. Foster*. *Not printed.*
- 55a. (2) Return to an address of the House of Commons, dated 22nd January, 1908, for a copy of all orders in council, correspondence, reports, memoranda, evidence and other documents and papers of every description relating to the estate of the late Orren

CONTENTS OF VOLUME 17—*Continued.*

Leonard Wiley, or to the claim of Louise F. Wiley, or of her infant daughter, against the government or against Frederick T. Congdon as public administrator of the Yukon Territory, or otherwise as an official of the government, or to any charges against the said Frederick T. Congdon as public administrator or otherwise as an official or employee of this government; excluding therefrom, however, any papers relating to the subjects which may be included in return ordered on the 13th instant, on motion of the honourable member for North Toronto. Presented 24th February, 1908.—*Mr. Foster.*

Not printed.

- 55b.** Return to an address of the House of Commons, dated 29th January, 1908, for a copy of all orders in council, correspondence, evidence, memoranda and other documents and papers of every description, relating to or touching the conduct of all persons who have acted as public administrator in the Yukon Territory, or who have had charge or control by reason of their official position, of the estate of deceased persons in the Yukon Territory. And a copy of all such documents and papers aforesaid as set forth and describe the action, if any, of the government in respect of any claims, charges or proposed proceedings against any such official in respect of his duties, acts or dealings as public administrator. Presented 24th February, 1908.—*Mr. Lennox....Not printed.*
- 55c.** Return to an order of the House of Commons, dated 13th January, 1908, for a copy of all telegrams, affidavits, papers sent by and all correspondence had with Rev. John Pringle, presently of the Yukon, in connection with the condition of public matters therein and with public officials thereof, and especially in reference to one Frederick Tennyson Congdon, at one time commissioner of the Yukon, and one Girouard, registrar, and one Lithgow, controller and member of the Yukon Council and in particular letters sent by Rev. John Pringle, on or about January, 1902, and in or about January, 1905, and on or about 31st July, 1907, to the premier of Canada, and other ministers, detailing the condition of public matters in the Yukon and the replies thereto. Also showing what action, if any, was taken by the government in relation to the matters dealt with therein and the reports of any commissioner appointed to investigate the charges or any part of them. Presented 2nd March, 1908.—*Mr. Foster... ..Not printed.*
- 55d.** Return to an order of the House of Commons, dated 20th January, 1908 for a copy of all correspondence relating to the morality of the Yukon. Presented 11th March, 1908.—*Mr. Thompson... ..Not printed.*
- 55e.** Return to an order of the House of Commons, dated 10th February, 1908, showing the parties to, whom were made the original grants from the Crown of the lands comprised within the limits of the town of Whitehorse, Yukon Territory, and any assignments made thereof, with names of parties, dates, and consideration therefor. Presented 16th March, 1908.—*Mr. Foster... ..Not printed.*
- 55f.** Supplementary return to an order of the House of Commons, dated 13th January, 1908, for a copy of all telegrams, affidavits, papers sent by, and all correspondence had with Reverend John Pringle, presently of the Yukon, in connection with the condition of public matters therein and with public officials thereof, and especially in reference to one Frederick Tennyson Congdon, at one time commissioner of the Yukon, and one Girouard, registrar, and one Lithgow, controller and member of the Yukon Council; and in particular letters sent by Reverend John Pringle, on or about January, 1902, and in or about January, 1905, and on or about 31st July, 1907, to the Premier of Canada and other ministers, detailing the condition of public matters in the Yukon and the replies thereto; also showing what action, if any, was taken by the government in relation to the matters dealt with therein and the reports of any commissioner appointed to investigate the charges or any part of them. Presented 7th April, 1908.—*Mr. Foster... ..Not printed.*

CONTENTS OF VOLUME 17—*Concluded.*

- 55g.** Return to an order of the House of Commons, dated 18th February, 1907, for a copy of all letters, memorials, telegrams, petitions, resolutions and other communications, documents and papers from any person or persons in the Yukon to the Prime Minister or to the government, or any member or official of the government, respecting the official acts or conduct of Mr. W. W. B. McInnes as commissioner of the Yukon; including any petition asking for the removal of Mr. McInnes from his position as commissioner. Presented 7th April, 1908.—*Mr. White*.*Not printed.*
- 55h.** Return to an order of the House of Commons, dated 13th January, 1908, for a copy of the report made by Mr. Beddoe upon the condition of the books, accounts, &c., of the financial administration of the Yukon, and especially with reference to the condition in the public administrator's office. Presented 21st April, 1908.—*Mr. Foster*.
Not printed.
- 55i.** Return to an address of the House of Commons, dated 30th March, 1908, for a copy of all orders in council, reports, correspondence, documents, and papers relating to the appointment of Mr. W. H. P. Clement as legal adviser to the council of the Yukon Territory, or as public administrator in the Yukon Territory, or to any other office of emolument in the Yukon Territory, or relating to the resignation of the said W. H. P. Clement from any such office, or relating to the circumstances under which and reasons for which the said W. H. P. Clement ceased to act as such legal adviser, public administrator or in any other such capacity. Presented 7th May, 1908.—*Mr. Sproule*.
Not printed.
- 56.** Statement of expenditure as to bounty to deep-sea fishermen, for the year 1906-7. Presented 18th December, 1907, by Hon. L. P. Brodeur.*Not printed.*
- 56a.** Return to an order of the House of Commons, dated 13th January, 1908, showing the names and residences of all fishermen in the county of Cape Breton to whom fishing bounties were paid between 31st December, 1905, and 1st January, 1908, together with a statement of the amount paid to each person, the date on which it was paid, and the name of the officer or person by whom the sum was paid. Presented 11th February, 1908.—*Mr. Borden (Carleton)*.*Not printed.*
- 56b.** Supplementary return to No. 56a. Presented 13th July, 1908.*Not printed.*
- 57.** Correspondence and instructions with regard to the Lord's Day Act in its application to the Yukon Territory. Presented 18th December, 1907, by Hon. A. B. Aylesworth.
Not printed.

CONTENTS OF VOLUME 18.

- 58.** Minutes of Proceedings of the Colonial Conference held at the Colonial Office, Downing Street, London, from the 15th April to the 14th May, 1907. Presented 22nd May, 1908, by Sir Wilfrid Laurier.*Printed for both distribution and sessional papers.*
- 59.** Report of the Royal Commission on the Grain Trade of Canada. Presented 8th January, 1908, by Hon. F. Oliver.*Printed for both distribution and sessional papers.*
- 60.** Return to an order of the House of Commons, dated 18th December, 1907, for a copy of the report of the Honourable Justice James Henry Madden, appointed by order in council, 15th May, 1907, to investigate and report upon the matter of arrears for rentals on certain leases at Dunnville, Welland Canal feeder. Presented 9th January, 1908.—*Mr. Lalor*.*Not printed.*
- 61.** Return to an address of the House of Commons, dated 11th December, 1907, for a copy of all correspondence, petitions, statements, papers, orders in council, and proclamations respecting the setting out of limits for prohibition of the sale of liquors along the line of the Grand Trunk Pacific under the Public Works Construction Act. Presented 9th January, 1908.—*Mr. Foster*.*Not printed.*
- 61a.** Supplementary return to No. 61. Presented 27th January, 1908.*Not printed.*

 CONTENTS OF VOLUME 18—*Continued.*

62. Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all correspondence, documents, papers, memoranda, and reports, relating to the retirement, resignation, or dismissal of Mr. Hodgins, C.E., from the service of the National Transcontinental Railway Commission, and the grounds or reasons therefor. Presented 9th January, 1908.—*Mr. Borden (Carleton)*... ..*Not printed.*
- 62a. Return to an order of the House of Commons, dated 18th December, 1907, showing what changes, if any, have been made in the National Transcontinental Railway Commission's engineering staff during the current calendar year. Presented 9th January, 1908.—*Mr. Macdonell*... ..*Not printed.*
- 62b. Return to an order of the House of Commons, dated 12th December, 1907, showing :
 1. The estimated quantities used by the Transcontinental Railway Commission for arriving at the moneyed values of the tenders for the construction of the 50 miles, more or less, from Moncton westerly; for the construction of 62 miles, more or less, from Grand Falls westerly; from the south side of the St. Lawrence river, easterly 150 miles; for the 45 miles more or less westerly from near La Tuque; and for the 150 miles easterly from near Abitibi, known as the Abitibi section. 2. The various prices which each tenderer placed opposite the several items in the schedule or form of tender. 3. The total amount so ascertained of each tender. Presented 9th January, 1908.—*Mr. Schell (Glengarry)*. See also 39b... ..*Not printed.*
63. Return to an address of the House of Commons, dated 11th December, 1907, for a copy of all orders in council, correspondence, reports, opinions of the Department of Justice, memoranda, papers and documents; also of all plans or route maps relating to the proposed new eastern entrance of the Grand Trunk Railway Company into the city of Toronto. Presented 9th January, 1908.—*Mr. Macdonell*... ..*Not printed.*
64. Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all writs, forms and instructions issued and used in and for the purposes of the several elections for Dominion constituencies in the year 1907. Presented 9th January, 1908.—*Mr. Barker*... ..*Not printed.*
65. Return to an address of the House of Commons, dated 11th December, 1907, for a copy of the order in council appointing Honourable J. A. Ouimet as judge of the Court of the King's Bench, as well as a copy of all correspondence, reports, medical certificates and order in council concerning his being pensioned. Presented 9th January, 1908.—*Mr. Lanctot (Laprairie-Napierville)*... ..*Not printed.*
66. The Canada Year Book, 1906. Presented 10th January, 1908, by Hon. S. A. Fisher.
Printed separately.
67. Report of the Commissioner, Dominion Police Force, for the year 1907. Presented 13th January, 1908, by Hon. A. B. Aylesworth... ..*Not printed.*
68. Return to an order of the House of Commons, dated 11th December, 1907, showing :
 1. The number of officials of the government, civil or military, or officers of the active militia who perform services in any way connected with the manufacture of rifles for the government by the Ross Rifle Company. 2. Their names, ranks, and duties, and the amount of their individual salary or remuneration. 3. The total amount, (apart from contract cost of rifle), or expenditure by the government with the Ross Rifle Company, including any bonus, loans, inspections, cost of testing, commissions, or expenditure of any kind, with the individual amounts. Presented 16th January, 1908.—*Mr. Worthington*... ..*Not printed.*
- 68a. Return to an order of the House of Commons, dated 11th December, 1907, showing reports of commissions, boards of inquiry, inspections, reports of industrial officers, to the government or any member thereof, including reports from the comptroller, commissioner, or any officer, or member of the Northwest Mounted Police, the Dominion Rifle Association, or any member thereof, or any rifle association or club, or any

CONTENTS OF VOLUME 18—*Continued.*

member thereof, or to the commandant, or any member of the Bisley team, regarding the efficiency of the Ross rifle, to date. Presented 9th April, 1908.—*Mr. Worthington.*

Not printed.

68b. Return to an order of the House of Commons, dated 11th March, 1908, for a copy of all correspondence between the government or any department thereof, and the Ross Rifle Company, or any representative thereof, or between the government and any bank or other institution which has made advances under the contract between the government and the said company, or any representative of such bank or institution, relating to the accounts and financial or other affairs of the Ross Rifle Company, including any letters or correspondence from any official of the Bank of Montreal to the Auditor General. Presented 9th April, 1908.—*Mr. Worthington.**Not printed.*

68c. Return to an address of the House of Commons, dated 18th March, 1908, for a copy of all correspondence, reports, communications and other papers and documents of every kind and description not already brought down, relative to the rifle known as the Ross rifle, or to the contract between the government and any person or corporation with respect to the said rifle, or to the value or efficiency thereof, or to any alleged defects therein; also a copy of all letters, telegrams, despatches, reports, and other communications of every kind from the British government or any member or official thereof, or from the War Office, or Secretary of State for War, or any officer or official or person employed by or in the service of the British government, to the Governor General of Canada, or to the government of Canada, or to the Minister of Militia, or to any officer or official or person in the public service of Canada, relative to the said rifle, or to the value or efficiency of the said rifle or any defects therein, or any matter or thing connected therewith. Presented 9th April, 1908.—*Mr. Worthington.*

Not printed

68d. Return to an address of the House of Commons, dated 11th December, 1907, for a copy of all contracts between the Ross Rifle Company and the government, or the Department of Militia, for the supply of rifles, ammunition and other articles, and all orders in council, correspondence, reports, documents and papers, relating to such contracts, and the subject-matter thereof, and to the operations of the company, and to its dealings with the government, or any of the departments, including the Department of Customs, and the Bank of Montreal, or any banking institutions. Presented 9th April, 1908.—*Mr. Worthington.**Not printed.*

69. Return of lands sold by the Canadian Pacific Railway Company, from the 1st October, 1906, to the 1st October, 1907. Presented 13th January, 1908, by Hon. F. Oliver.

Not printed.

70. Report of the Ottawa Improvement Commission for the nine months ended the 31st March, 1907. Presented 13th January, 1908, by Hon. W. S. Fielding.

Printed for sessional papers.

71. Return to an order of the House of Commons, dated 11th December, 1907, showing :
 1. How much money has been expended to date on the Royal Mint, for construction and equipment, respectively. 2. The sums required to complete on both accounts.
 3. The officers and employees, and at what yearly salaries, are required to man the institution. 4. The face value of copper and silver and gold coinage obtained by the government per year for the last ten years, and what it has cost the government therefor. 5. The total profit on coinage in the ten years. 6. The amount of coinage it is in contemplation to issue in 1908, and in what denominations. 7. Who is to make the purchases and fix the price of bullion necessary for the use of the Mint. 8. Upon what system the officers and employees of the Mint are appointed, promoted and dismissed. Presented 13th January, 1908.—*Mr. Foster.**Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 72.** Supplementary return to an address of the House of Commons, dated 10th December, 1906, for a copy of all orders in council, correspondence, and all other papers, relating to the Standard Chemical Company (Limited), or Pevelan & Co., in its dealings with the Customs and Inland Revenue Departments from the date of the incorporation of the said company to the present date. Presented 16th January, 1908.—*Mr. Robitaille.*
Not printed.
- 73.** Return to an order of the House of Commons, dated 11th December, 1907 showing:
1. All promotions that have been made to the rank of colonel in the active militia during the past year, with names. 2. The nature of service, merit or seniority justifying such promotions. 3. The record of war services of such officers. 4. Previous to the gazettement of such promotion the positions held by such officers on the seniority list of the colonels. 5. The number of lieut.-colonels who were outranked or superseded by such promotions, with their names and services. Presented 17th January, 1908.—*Mr. Worthington.**Not printed.*
- 74.** Return to an address of the House of Commons, dated 11th December, 1907, for a copy of all orders in council, correspondence, documents and papers relating to Chinese seeking admission to the public schools of British Columbia as students, and relating to the remission of head-tax on such persons Presented 20th January 1908.—*Mr. Borden (Carleton).**Not printed.*
- 74a.** Report of W. L. Mackenzie King, commissioner to inquire into the methods by which oriental labourers (Japanese) have been induced to come to Canada. Presented 20th January, 1908, by Hon. R. Lemieux.*Not printed.*
- 74b.** Return to an address of the House of Commons, dated 12th December, 1907, for a copy of all correspondence between the Government of Canada and the Imperial authorities, and a copy of all correspondence between the Government of Canada, and any person or persons, and of all reports communicated to the Government in respect to the Anglo-Japanese convention regarding Canada. Presented 21st January, 1908.—*Mr. Borden (Carleton).**Printed for sessional papers.*
- 74c.** Supplementary return to No. 74b. Presented 21st January.
Printed for sessional papers.
- 74d.** Supplementary return to an address of the House of Commons, dated 18th December, 1907, for a copy of all orders in council, correspondence, documents and papers, during the past ten years, relating to the immigration of Chinese and Japanese into Canada. Presented 24th February, 1908.—*Mr. Borden (Carleton).**Not printed.*
- 74e.** Return to an address of the House of Commons, dated 18th December, 1907, for a copy of all orders in council, correspondence, documents and papers, during the present year, relating to the immigration of Japanese into Canada. Presented 9th March, 1908.—*Mr. Borden (Carleton).**Not printed.*
- 74f.** Report of W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, commissioner appointed to investigate into the losses sustained by the Chinese population of Vancouver, in the province of British Columbia, on the occasion of the riot in that city in September, 1907. Presented 30th June, 1908, by Hon. R. Lemieux.
Printed for both distribution and sessional papers.
- 74g.** Report by W. L. Mackenzie King, C.M.G., Deputy Minister of Labour, commissioner appointed to enquire into the losses and damages sustained by the Japanese population in the city of Vancouver, in the province of British Columbia, on the occasion of riots in that city in September, 1907. Presented 30th June, 1908, by Hon. R. Lemieux.
Printed for both distribution and sessional papers.
- 74h.** Report of W. L. Mackenzie King, C.M.G., commissioner appointed to enquire into methods by which Oriental labourers (Hindoo and Chinese) have been induced to come to Canada. Presented 13th July, 1908, by Hon. R. Lemieux.*Not printed.*

 CONTENTS OF VOLUME 18—*Continued.*

75. Return to address of the House of Commons, dated 11th December, 1907, for a copy of all correspondence, instructions or communications sent by the Government of Canada, through the Secretary of State or otherwise, to Sir Henri Joly de Lotbinière, as Lieutenant Governor of British Columbia, during the years 1905 and 1906, respectively. Presented 21st January, 1908.—*Mr. Borden (Carleton)*... ..*Not printed.*
76. Copy of an order in council regarding sale of a portion of Major's Hill Park, Ottawa, to the Grand Trunk Railway Company as a site for a hotel. Presented 21st January, 1908, by Hon. W. Pugsley... ..*Not printed.*
77. Return to an order of the House of Commons, dated 16th December, 1907, for a copy of any declarations or affidavits made by Robert Cruickshank, or other persons in the Regina Lands district, or any other complaints in regard to alleged improper or unauthorized charges by individuals, whether in the service of the Government or not, for locating settlers on homesteads, or obtaining for them entries for homesteads, by cancellation or otherwise, together with all correspondence, reports, or other papers on the subject; also all communications, reports, correspondence, or other papers between the Department of the Interior and any of its officials and any person or persons in regard to homestead entries, cancellations, protections, inspectors' reports, &c., for the s.w. $\frac{1}{4}$ sec. 16 and the n.w. $\frac{1}{4}$ sec. 20 and the n.w. and s.w. $\frac{1}{4}$ sec 36, all in tp 14, r. 9, w. 2nd M. Presented 23rd January, 1908.—*Mr. Lake*.... ..*Not printed.*
78. Return to an order of the House of Commons, dated 11th December, 1907, showing how many applications were refused for permission, as granted by order in council passed on 16th May, 1906, for saw-mill owners to cut timber. Presented 23rd January, 1908.—*Mr. Roche (Marquette)*... ..*Not printed.*
79. Return to an order of the House of Commons, dated 11th February, 1907, showing the total expenditure each constituency, as defined prior to last Redistribution Act, the the years 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, and 1906, for: (a) Harbours and rivers, including dredging, wharfs, docks, breakwaters, piers, or other improvements and repairs. (b) For public buildings and lands, including repairs, extensions, &c. (c) Maintenance and caretakers, including fuel, lights, &c. (d) Expenditure in connection with Intercolonial Railway, including purchase of lands, erection of buildings, repairs, &c., and improvements, and the place where spent. Presented 29th January, 1908.—*Mr. Sproule*... ..*Not printed.*
80. Return to an order of the House of Commons, dated 11th December, 1907, showing a summary of stock, implements, chattels, grain, hay, roots and all other kinds of fodder, with their value, for the years ending 1st December, 1906 and 1907; also the amount paid for all kinds of live stock, their kind and number, the amount paid for all kinds of feed, giving the kind, the amount of all kinds of product sold, and their kind; the amount paid for all kinds of grain and seed for distribution for the same years, on the Central Experimental Farm, Ottawa. Presented 23rd January, 1908.—*Mr. Jackson (Elgin)*... ..*Not printed.*
81. Return to an order of the House of Commons, dated 11th December, 1907, showing the number of immigrants secured and located by Mr. N. B. Miller, of the town of Napanee, in the county of Lennox and Addington, the names of such immigrant, his age, the names of the respective parties with whom they were located, also the township in which such party resides; also the amount of money received by the said N. B. Miller from the government for his services in salary, commission, or both; also the amount of moneys received by the said N. B. Miller, respectively, from residents in the said county of Lennox and Addington for his services in securing the aforesaid immigrants. Presented 23rd January, 1908.—*Mr. Wilson (Lennox and Addington)*... ..*Not printed.*
- 81a. Return to an order of the House of Commons, dated 11th December, 1907, showing the number of immigrants secured and located by Mr. M. C. Dunne, of Yarker, in the county of Lennox and Addington, the names of each such immigrant, his age, the names

CONTENTS OF VOLUME 18—Continued.

- of the respective parties with whom they are located, also the township in which such party resides; also the amount of money received by the said M. C. Dunne from the government for his services in salary, commission, or both; also the amount of moneys received by the said M. C. Dunne, respectively, from residents in the said county of Lennox and Addington for his services in securing the aforesaid immigrants. Presented 23rd January, 1908.—*Mr. Wilson (Lennox and Addington)*.*Not printed.*
- 81b.** Return to an order of the House of Commons, dated 13th January, 1908, showing list of the names of immigration agents appointed by the government in each county of the province of Ontario, the county in which each such agent is employed, the number of immigrants placed by each such agent, and the amounts paid to each such agent for his services and expenses. Presented 30th January, 1908.—*Mr. Clements*.*Not printed.*
- 81c.** Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all reports received by the government from each of the special immigration agents sent to Great Britain and the continent of Europe, for the fiscal year ending 31st March, 1907. Presented 30th January, 1908.—*Mr. Wilson (Lennox and Addington)*.
Not printed.
- 81d.** Return to an order of the House of Commons, dated 16th December, 1907, showing the number of immigrants who reached and settled in Canada during the fiscal years of 1905-6 and 1906-7, and from what countries they came. Presented 11th February, 1908.—*Mr. Paquet*.*Not printed.*
- 81e.** Return to an order of the House of Commons, dated 22nd January, 1908, for a copy of all correspondence between the Department of the Interior and James S. Waugh, immigration distribution agent, subsequent to 1st December, 1907. Presented 11th February, 1908.—*Mr. Gordon*.*Not printed.*
- 81f.** Return to an order of the House of Commons, dated 3rd February, 1908, showing what special immigration agents the Government of Canada has in the British Islands; their respective names, and from what parts of Canada they come; the arrangements made by the Government with the said agent or agents as to salary and expenses; the date of their respective appointments, and at what time they left this country to take up their work. Presented 11th February, 1908.—*Mr. Wilson (Lennox and Addington)*.
Not printed.
- 81g.** Return to an Address of the House of Commons, dated 29th January, 1908, for a copy of all orders in council now in force with respect to immigration from every country from which immigrants come to Canada; also a copy of all circulars in force at the present time with reference to immigration. Presented 13th February, 1908.—*Mr. Wilson (Lennox and Addington)*.*Not printed.*
- 81h.** Return to an order of the House of Commons, dated 20th January, 1908, for a copy of all certificates by farmers resident in the riding of West Kent, and returned to the department by emigration agents for the said riding, and on certificates such agents were paid for placing emigrants with each farmer, giving the names of each emigrant and of each farmer such were placed with, giving the total amount received by each agent up to the present time Presented 3rd March, 1908.—*Mr. Clements*.*Not printed.*
- 81i.** Return to an order of the House of Commons, dated 11th March, 1908, for a copy of all certificates by A. G. McDonald, immigration agent for Prince Edward County, Ontario, claiming payment for immigrants by him alleged to have been placed with farmers or other employers; also, a copy of all certificates or communications by such farmers or other employers received by the Department of the Interior relating to immigrants so claimed as placed by said A. G. McDonald, giving in each case the name and post office address of the immigrant and of the farmer or the employer. Presented 13th April, 1908.—*Mr. Alcorn*.*Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 81j. Return to an order of the House of Commons, dated 23rd March, 1908, showing the expenditure of the Government for food, clothing and other maintenance for immigrants after landing in Canada for the years 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, to 1st March. Presented 30th April, 1908.—*Mr. Schaffner*.*Not printed.*
- 81k. Report of E. Blake Robertson, assistant superintendent of immigration, respecting Joseph Bernstein, Halifax. Presented 27th May, 1908, by Hon. F. Oliver...*Not printed.*
82. Return to an order of the House of Commons, dated 18th December, 1907, showing the total amount paid by this Government each year, during the past five years, towards mail subsidies to steamships; the names of the countries served, the names of steamers and contractors, and the steamship subventions. Presented 28th January, 1908.—*Mr. Armstrong*.*Printed for sessional papers.*
83. Return to an order of the House of Commons, dated 13th January, 1908, for a copy of the lease, conditions, &c., passed between the Government of Canada and a company for the use of the Beauharnois Canal. Presented 24th January, 1908.—*Mr. Bergeron*.
Not printed.
84. Copies of a letter and telegrams between the Lieutenant Governor of British Columbia and the Honourable the Secretary of State for Canada, on the subject of the disallowance of a Bill of the Legislature of British Columbia, intituled: "An Act to regulate immigration into British Columbia." Presented 24th January, 1908, by Sir Wilfrid Laurier.*Not printed.*
85. Return to an order of the House of Commons, dated 8th January, 1908, for a copy of all correspondence between the Department of Justice, or any department of the Government, and Mr. Frederick Fraser Forbes, now a district judge in the province of Saskatchewan, or any other person or persons, in reference to the personal or professional status or character of Mr. Forbes, or his appointment as a judge as above-mentioned, and of all writings and documents of any kind in reference to the foregoing matter. Presented 28th January, 1908.—*Mr. Taylor*.*Not printed.*
86. Return to an order of the House of Commons, dated 15th January, 1908, showing the number of applications made to the Board of Railway Commissioners for the privilege of crossing railway tracks with telephone and telegraph wires and with water mains each, over the said period from 1st February, 1904, to the 1st January, 1908; the total number of applications granted over said period; the total number of applications refused; the date of each application; the date each application was granted; the length of time from the application to the granting of same; and what time should elapse before the board should give its decision. Presented 27th January, 1908.—*Mr. Barr*.
Not printed.
87. Return to an order of the House of Commons, dated 16th December, 1907, showing, in respect of all grants of right to divert water and construct ditches made under the provisions of the Yukon Placer Mining Act, 1906, the number of the claim, name and address of the grantee, date of issue, length of term, source of water, quantity that may be diverted, estimated expenditure within one year, time limit for construction, sum paid for the privilege and the name and address of present holder, if rights have been transferred. Presented 30th January, 1908.—*Mr. Boyce*.*Not printed.*
88. Return to an order of the House of Commons, dated 11th December, 1907, showing the timber lands sold or leased by the Department of the Interior subsequent to the date of those included in Sessional Paper, No. 167a, brought down to the House on the 9th of April, 1907; the description and area of such lands, the applications made therefor, the notice of advertisement for sale or tender, the tenders received, the amount of each tender, the tenders accepted, the name of the person or company to whom each lot was sold or leased, and the name and address of each person or company to whom any of such leases have been transferred. Presented 30th January, 1908.—*Mr. Ames*.
Not printed.

CONTENTS OF VOLUME 18—*Continued.*

- 88a.** Return to an order of the House of Commons, dated 11th December, 1907, showing, in respect of timber berth number 1279, all applications, correspondence, reports, advertisements, tenders, leases, transfers, or memoranda of any description. Presented 3rd February, 1908.—*Mr. Amcs*.....*Not printed.*
- 88b.** Return to an order of the House of Commons, dated 18th December, 1907, showing, in respect of timber berths numbers 1031, 1118, 1097 and 1098, all bonuses, rentals, or dues, paid to date by the lessees or other assigns to the Government, together with a copy of all applications, correspondence, reports, advertisements, tenders, leases, transfers or memoranda of any description in connection therewith. Presented 18th February, 1908.—*Mr. White*.....*Not printed.*
- 88c.** Return to an order of the House of Commons, dated 18th December, 1907, showing, in respect of timber berths numbers 1050, 1265, 1267, 1274 and 1275, all bonuses, rentals or dues paid to date by the lessees or other assigns to the Government, together with a copy of all applications, correspondence, reports, advertisements, tenders, leases, transfers or memoranda of any description in connection therewith. Presented 18th February, 1908.—*Mr. Boyce*.....*Not printed.*
- 88d.** Return to an order of the House of Commons, dated 12th February, 1908, for the production of all the original applications and tenders filed in the Department of the Interior in respect of timber berths numbers 1050, 1265, 1267, 1274 and 1275, and that the names be laid upon the Table of the House, said papers not to be part of the archives of this House, but to be returned by the Clerk to the Department of the Interior after inspection. Presented 24th February, 1908.—*Mr. Boyce*.....*Not printed.*
- 88e.** Return to an order of the House of Commons, dated 12th February, 1908, for the production of all the original applications and tenders filed in the Department of the Interior in respect of timber berths numbers 1031, 1118, 1119, 1097 and 1098, and that the same be laid upon the Table of the House, said papers not to be part of the archives of this House, but to be returned by the Clerk to the Department of the Interior after inspection. Presented 24th February, 1908.—*Mr. White*.....*Not printed.*
- 88f.** Return to an order of the House of Commons, dated 12th February, 1908, for the production of all the original applications and tenders filed in the Department of the Interior in respect of timber berths numbers 1048, 1049, 1122 and 1168, and that the same be laid upon the Table of the House, said papers not to be part of the archives of this House, but to be returned by the Clerk to the Department of the Interior after inspection. Presented 24th February, 1908.—*Mr. Boyce*.....*Not printed.*
- 88g.** Return to an order of the House of Commons, dated 10th February, 1908, that there be laid on the Table for inspection the original applications and tenders in respect of timber berths numbers 1220, 1226, 1238 and 1272, said papers not to be part of the archives of this House, but to be returned by the Clerk to the Department of the Interior after inspection. Presented 24th February, 1908.—*Mr. Lake*.....*Not printed.*
- 88h.** Return to an order of the House of Commons, dated 18th December, 1907, showing, in respect of timber berths numbers 1048, 1049, 1122 and 1168, all bonuses, rentals, or dues paid to date by the lessees or other assigns to the Government, together with a copy of all applications, correspondence, reports, advertisements, tenders, leases, transfers and memoranda of any description in connection therewith. Presented 9th March, 1908.—*Mr. Boyce*.....*Not printed.*
- 88i.** Return to an order of the House of Commons, dated 18th December, 1907, showing, in respect of all timber berths at present under license or authorized to be licensed within the provinces of Manitoba, Saskatchewan, Alberta and the Northwest Territories, (a) number or designation of each berth; (b) number of license for 1907-8; (c) area of berth in square miles; (d) name and address of present license holder; (e) name and address of original applicant, with date of his application; (f) date of issue from Ottawa of advertisement; (g) date fixed therein for opening of tenders; (h) name and address of

CONTENTS OF VOLUME 18—*Continued.*

successful tenderer; (i) amount of bonus paid; (j) date when definite selection of blocks was completed and the returns of the survey filed with the Department of the Interior at Ottawa; (k) amount of dues collected during the year ending the 30th of April, 1907, in respect of each berth for ground rent, stumpage royalty, and the cost of fire guarding, &c.; also the amount, if any, unpaid and overdue at the termination of said year; (l) whether license was issued according to order in council of April 14th, 1903, or of July 23rd, 1906; (m) in case of berths upon which during the year 1906-7 no timber was cut, whether notification has been served on license holder to operate a saw-mill, and the date of such notice. Presented 11th March, 1908.—*Mr. McCarthy (Calgary)*

Not printed.

88j. Return to an order of the House of Commons, dated 11th December, 1907, bringing the information as contained in Sessional Paper No. 167b, brought down April 26th, 1907, up to date. Presented 13th March, 1908.—*Mr. Ames*... .. *Not printed.*

88k. Return to an order of the House of Commons, dated 3rd February, 1908, for a copy of all letters, correspondence, applications, advertisements, reports, memoranda, valuations, estimates, tenders, transfers, or other writings or papers in respect of or in connection with timber berths numbers 1413, 1414 and 1415. Presented 16th March, 1908.—*Mr. Lennox*... .. *Not printed.*

88l. Return to an order of the House of Commons, dated 26th February, 1908, for a copy of all applications to homestead or purchase, reports, agreements of lease or sale, correspondence exchanged between the Department of the Interior and any person whatsoever, and papers of every description dealing with or treating of the sale or lease of surface, mining, timber, or any other rights in respect of the n.w. $\frac{1}{4}$ of section 8, township 53, range 4, west of the 5th M. Presented 19th March, 1908.—*Mr. Ames*.

Not printed.

88m. Return to an order of the House of Commons, dated 18th December, 1907, showing, in respect of timber berths numbers 1220 to 1226, 1238 and 1272, all bonuses, rentals or dues paid to date by the lessees or other assigns to the Government, together with a copy of all applications, correspondence, reports, advertisements, tenders, leases, transfers or memoranda of any description in connection therewith. Presented 24th March, 1908.—*Mr. Lake*... .. *Not printed.*

88n. Return to an order of the House of Commons, dated 9th March, 1908, for a copy of applications, recommendations of applications, and replies thereto, instructions, regarding advertising, and a copy of all tenders and replies thereto, for timber berths numbers 652, 657, 677, 679, 681, 683, 684, 721, 722, 730 and 743. Presented 30th March, 1908.—*Mr. McCraney*... .. *Not printed.*

88o. Return to an order of the House of Commons, dated 2nd March, 1908, for the production of all the original applications and tenders filed in the Department of the Interior in respect of timber berths 1046, 1047, 1052, 1058, 1068, 1070, 1093, 1094, 1099, 1191, 1192 and that the same be laid upon the Table of the House, said papers not to be part of the archives of this House, but to be returned by the Clerk to the Department of the Interior after inspection. Presented 13th April, 1908.—*Mr. Ames*... .. *Not printed.*

88p. Return to an Address of the House of Commons, dated 26th February, 1908, for a copy of all orders in council, letters, telegrams, reports, recommendations, tenders or communications of any kind in relation to the granting of sixteen townships and certain timber limits in the Peace River region, as referred to in a motion of the 15th January, ult., reference 102, not already brought down. Presented 13th April, 1908.—*Mr. Hughes (Victoria and Haliburton)*... .. *Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 88q.** Return to an order of the House of Commons, dated 26th February, 1908, showing the total sum (money or scrip) that the Government has received on account of the lands, mines, minerals, timber &c., in the various Dominion lands offices in the provinces of Manitoba, Saskatchewan and Alberta, distinguishing between each province, during the following periods: from 1st July, 1896, to 30th June, 1905, and from 1st July, 1905, to 31st December, 1907. Presented 21st April, 1908.—*Mr. Lake*. *Not printed.*
- 88r.** Return to an order of the House of Commons, dated 19th February, 1908, showing all sales of Dominion lands other than coal lands, of 160 acres and upwards, in the provinces of Manitoba, Saskatchewan and Alberta, which have been made by the Government during the calendar year 1907; the prices obtained; names of purchasers; dates of sales; and in general terms, the grounds upon which sales were authorized. Presented 21st April, 1908.—*Mr. Lake*. *Not printed.*
- 88s.** Return to an order of the House of Commons dated 17th February, 1908, showing: 1. How many applications for timber licenses were received by the Government of Mr. Mackenzie, what area in square miles they covered, how many licenses were issued, what area they covered, and under how many of those licenses operations were actually carried on, and what area these included. 2. How many applications for timber licenses were received by the Government from November 1st, 1878, to July 1st, 1896, and what area in square miles they covered, how many licenses were issued, and what area they covered, under how many of these licenses operations were actually carried on, and what area they covered. 3. How many permits to cut lumber were given to applicants as above in leases where licenses had not issued during each of these periods. Presented 21st April, 1908.—*Mr. Foster*. *Not printed.*
- 88t.** Return to an order of the House of Commons, dated 26th February, 1908, showing a list of timber berths awarded between 1st June, 1904, and 15th July, 1906, with the number of tenders in each case, the amount of each tender, the name of the successful tenderer, the area of each berth, the dates of notice and opening of the tenders in each case. Presented 22nd April, 1908.—*Mr. Crawford*. *Not printed.*
- 88u.** Return to an order of the House of Commons, dated 6th April, 1908, showing what coal lands were granted to sundry persons through the agency of P. E. Lessard, of Edmonton, together with copies of all letters, papers and documents relating to the application, sale, lease or cancellation of the same. All from the general file for the group of claims, and not the special file for each section. Presented 7th May, 1908.—*Mr. Ames*.
Not printed.
- 88v.** Return to an order of the House of Commons, dated 23rd March, 1908, showing what coal areas are held by F. E. Keniston, of Minneapolis; said return to include a copy of all letters, documents and correspondence relating to the application, sale, lease or cancellation of the same, from the general file for each group of claims, and not the special file of each section. Presented 7th May, 1908.—*Mr. Ames*. *Not printed.*
- 88w.** Return to an order of the House of Commons, dated 6th April, 1908, showing what coal lands are now or have been at any time owned, controlled, leased or operated in townships 53 and 54, range 7, west of the 5th meridian, by the Alberta Development Company (Limited), together with a copy of all applications, correspondence, deeds of sale and other documents in connection therewith. Presented 12th May, 1908.—*Mr. Ames*. *Not printed.*
- 88x.** Return to an order of the House of Commons, dated 6th April, 1908, showing what coal lands in townships 9 and 10, ranges 21, 22 and 23, west of the 4th meridian, were granted through the agency of J. W. Bettles (or his firm), of Winnipeg, Manitoba, together with a copy of all letters, documents and papers relating to the application, sale, lease or cancellation of the same. All from the general file for the group of claims, and not the special file for each section. Presented 18th May, 1908.—*Mr. Ames*.
Not printed.

CONTENTS OF VOLUME 18—*Continued.*

- 88y.** Return to an order of the House of Commons, dated 2nd March, 1908, for the production of all original tenders filed in the Department of the Interior in respect of timber limits numbers 645, 646, 675, 703, 705 and 733 to 737, and that the same be laid upon the table of the House, said papers not to be part of the archives of this House, but to be returned by the clerk to the Department of the Interior after inspection. Presented 20th May, 1908.—*Mr. McCraney*. *Not printed.*
- 88z.** Return to an order of the House of Commons, dated 23rd March, 1908, showing what coal areas were obtained through the agency of Malcolm McKenzie on behalf of clients; and a copy of all letters, documents and correspondence relating to the application, sale, lease or cancellation of the same; also the same information in regard to J. H. Moss, of Toronto. All from the general file for each group of claims, and not the special file for each section. Presented 27th May, 1908.—*Mr. Ames*. *Not printed.*
- 88aa.** Return to an order of the House of Commons, dated 26th February, 1908, for a copy of all applications, leases, assignments, correspondence, and papers, of every description in connection with or referring to the granting or sale of the mining rights in sections 17, 20, 21, 28, 29, 32 and 33, of township 8, range 4, west of the 5th meridian. Presented 27th May, 1908.—*Mr. Perley*. *Not printed.*
- 88bb.** Return to an order of the House of Commons, dated 6th April, 1908, showing what coal lands in townships 41 and 42, ranges 17 and 18, west of the 5th meridian, were granted through the agency of McGiverin & Hayden, Ottawa, together with a copy of all letters, documents and papers relating to the application, sale, lease or cancellation of same. All from the general file for the group of claims, and not the special file for each section. Presented 27th May, 1908.—*Mr. Ames*. *Not printed.*
- 89.** Return to an Address of the House of Commons, dated 20th January, 1908, for a copy of all papers and correspondence between the government of Canada and the government of the province of British Columbia, relating to the application of the Grand Trunk Pacific Railway Company to acquire a portion of the Metlakatla Indian Reserve, British Columbia, and to the general question of the claim of said province to the Indian reserves therein, since the date of said application. Presented 30th January, 1908.—*Mr. Ross (Yale-Cariboo)*. *Not printed.*
- 90.** Return to an order of the House of Commons, dated 15th January, 1908, for a copy of all correspondence, reports, locations, records of payments made on, payments returned, homestead entries, cancellations thereof; of any order, direction or other authority given to any homesteader or person who had entered for homestead to re-enter after cancellation of entry or default thereunder; any evidence of sale by Peter Luensen to Frederick Heintz, and any correspondence, affidavits, memoranda, or other documents by the department, or any of its officers, with W. L. MacKenzie, Peter Luenson, Frederick Heintz, Alexander K. Thom, Wm. R. Gardner, Thomas J. Oliver, or any other person in regard to the n.e. $\frac{1}{4}$ sec. 32, township 36, r. 16, west of 2nd m., Saskatchewan. Presented 30th January, 1908.—*Mr. Porter*. *Not printed.*
- 90a.** Supplementary return to No. 90. Presented 1st April, 1908. *Not printed.*
- 90b.** Return to order of the House of Commons, dated 6th April, 1908, showing: 1. Any Government lands near New Westminster, British Columbia, sold to one J. W. Patterson, and, if sold, by what department of the Government. 2. Whether they were Indian or military reserve lands, or either of them. 3. The prices Mr. Patterson paid for said lands, if any were sold to him. 4. The date of such sale or sales. Presented 27th April, 1908.—*Mr. Reid (Grenville)*. *Not printed.*
- 90c.** Return to an order of the House of Commons, dated 16th March, 1908, showing all lands acquired from the Government by the Grand Trunk Pacific Town and Development

CONTENTS OF VOLUME 18—*Continued.*

Company, together with the area, location, purchase price of each tract, and a copy of all correspondence between the Government and the company or any individuals interested therein or connected therewith, as to the general terms and conditions under which the Government land should be granted to the said company. Presented 27th April, 1908.—*Mr. Ames*.*Not printed.*

- 90d.** Return to an order of the House of Commons, dated 30th March, 1908, showing all the lands granted to the Saskatchewan Valley Land Company under their contract of May, 1902, specifying those which are patented as well as those unpatented, to date. Presented 30th April, 1908.—*Mr. Roche (Marquette)*.*Not printed.*
- 90e.** Return to an order of the House of Commons, dated 26th February, 1908, showing the approximate total area of Dominion lands disposed of by the Government in each of the provinces of Manitoba, Alberta and Saskatchewan, between the 1st July, 1896, and the 30th June, 1905, distinguishing between lands for agricultural purposes, grazing, irrigation, timber and coal; and also from the 1st July, 1905, to the 31st December, 1907. Presented 7th May, 1908.—*Mr. Lake*.*Not printed.*
- 91.** Return to an order of the House of Commons, dated 22nd January, 1908, showing the names and number of establishments being operated under the law and regulations of the "Meat and Food Inspection Act"; when they were individually put under the operation of the Act; and the names and number of inspectors for each establishment. presented 30th January, 1908.—*Mr. Hughes (Victoria and Haliburton)*.*Not printed.*
- 92.** Return to an order of the House of Commons, dated 15th January, 1908, for a copy of all papers, correspondence, tenders and contracts, in connection with building piers at Port Maitland, Ontario. Presented 30th January, 1908.—*Mr. Lalor*.*Not printed.*
- 92a.** Return to an order of the House of Commons, dated 3rd February, 1908, for a copy of all correspondence, contracts, telegrams, reports, plans and specifications, together with all other information not already brought down, in possession of the Government, relating to the construction of piers or docks already constructed or under construction at the following places: Bayfield, Huron county, Ontario; Grand Bend, county of Huron, Ontario; St. Joseph, county of Huron, Ontario; together with a statement of all moneys expended, and to whom paid, and the date of payment, and nature of the work done or material used. Presented 7th May, 1908.—*Mr. Armstrong*.*Not printed.*
- 92b.** Supplementary return to No. 92a. Presented 11th May, 1908.*Not printed.*
- 93.** Return to an order of the House of Commons, dated 13th January, 1908, showing the total amount of bounties paid by the Government since 1896, and the amount for each year on each article. Presented 30th January, 1908.—*Mr. Clements*.
Printed for sessional papers.
- 94.** Return to an address of the Senate, dated 19th February, 1907, for a statement showing the names, christian names, age, and country of origin of all the persons who, coming from the British Isles, from English colonies or from foreign lands, as strangers to Canada, have been placed, whether by order in council, by decision of the Militia Council, or otherwise, in any branch whatsoever of the military service of Canada, in the permanent force or in the volunteer force, together with the date of each of these appointments, the nature of the employment, the rank of the holder (before and after his appointment), and the yearly amount which he receives for his services. Presented 22nd January, 1908.—*Hon. Mr. Landry*.*Printed for sessional papers.*
- 95.** Return of reductions and remissions made under Revised Statutes of Canada, chapter 81, section 88, ss. 2. Presented (Senate) 22nd January, 1908, by Hon. Mr. Scott.*Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

96. Return to an address of the House of Commons, dated 17th December, 1906, for a copy of all orders in council, advertisements for tenders, tenders, specifications of every kind, plans, drawings, reports, letters, telegrams, correspondence, contracts, agreements and other documents and papers of every kind, touching or relating to any works at or near St. Andrews Rapids, in the province of Manitoba, and especially such documents as aforesaid in connection with any tender or contract by or on behalf of Charles Whitehead, or Kelly Brothers, or any subsequent tenderers or contractors. Presented 29th January, 1908.—*Mr. Borden (Carleton)* *Not printed.*
97. Return to an order of the House of Commons, dated 13th January, 1908, for a copy of all papers, correspondence, and evidence, in respect of the trial for criminal conspiracy against certain persons in the Yukon in connection with the Dominion elections of 1904. Presented 3rd February, 1908.—*Mr. Foster* *Not printed.*
98. Return to an order of the House of Commons, dated 13th January, 1908, for a copy of all correspondence between Major E. S. Wigle, of Windsor, Honourable R. F. Sutherland, A. H. Clarke, and the Minister of Inland Revenue, respecting the extension of the franchise of the Windsor, Detroit and Belle Isle Ferry Company. Presented 3rd February, 1908.—*Mr. Clements* *Not printed.*
99. Return to an order of the House of Commons, dated 29th January, 1908, for a copy of all correspondence, telegrams, or reports, respecting the refusal of the lieutenant governor of British Columbia to give his assent to a bill passed by the legislature of that province in 1907, respecting immigration and commonly referred to as the Natal Act. Presented 3rd February, 1908.—*Mr. Smith (Nanaimo)* *Printed for sessional papers.*
100. Return to an address of the House of Commons, dated 11th December, 1907, for a copy of all papers and correspondence between the government of Canada and any of its ministers with reference to the establishment of a fast line of steamship communication between Great Britain, Australia, New Zealand and Canadian ports. Presented 3rd February, 1908.—*Mr. Foster* *Not printed.*
101. Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all correspondence, enclosed clippings, agreements, statements, &c., between the government or any member thereof, and especially the Minister of Marine and Fisheries, the Minister of Railways, the Minister of Agriculture, the Minister of Militia, and Sir Wilfrid Laurier, and one F. E. Williams, of St. John, New Brunswick; one W. H. Trueman, of St. John, and any other person or persons whatsoever in relation to the establishment of a bait freezer and cold storage established in St. John, New Brunswick. Presented 5th February, 1908.—*Mr. Foster* *Not printed.*
102. Return to an order of the House of Commons, dated 11th December, 1907, showing the expenditure by the Dominion Government on (a) wharfs; (b) harbours and river improvements; (c) dredging; (d) public buildings; for each year since 1896, in the counties of Digby, Yarmouth, Shelburne, Queen's, Lunenburg and Pictou, Nova Scotia, specifying the works by name, with amounts expended thereon. Presented 6th February, 1908.—*Mr. Foster* *Not printed.*
103. Return to an order of the House of Commons, dated 20th January, 1908, for a copy of letters, telegrams, and reports, regarding complaints made by John Franklin and Stapleton Brothers, with respect to Indian Agent Yeomans. Presented 6th February, 1908.—*Mr. Foster* *Not printed.*
104. Return to an order of the House of Commons, dated 20th January, 1908, showing the amount paid each year for provisions for the Royal Military College, for the Halifax Garrison, and the Permanent Military School in Quebec, the average number of men provisioned each year of the above institutions, and cost per man per day. Presented 10th February, 1908.—*Mr. Foster* *Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 105.** Return to an order of the House of Commons, dated 11th December, 1907, showing the number of fishing licenses issued by the Government for any of the lakes in the province of Saskatchewan, to whom issued, and on what lakes. Presented 10th February, 1908.—*Mr. Chisholm (East Huron)*.*Not printed.*
- 106.** Return to an order of the House of Commons, dated 15th January, 1908, showing what lands have been sold, leased, given as homesteads, transferred or set apart in any way by the Government to each: individuals, companies, syndicates, or other organizations in the Peace River Valley, or along or near tributaries thereof, in the Northwest of Canada; when each area was allotted; the terms between the Government and the various parties or organizations concerned; what prices per acre were realized from these transactions; with whom the Government conducted negotiations in each case; the regulations governing the securing of land in the Peace River Valley; and how far it is from Edmonton to Dunvegan. Presented 11th February, 1908.—*Mr. Hughes (Victoria and Haliburton)*.*Not printed.*
- 107.** Return to an address of the House of Commons, dated 22nd January, 1908, for a copy of all orders in council, reports, memoranda, correspondence, documents, plans, tenders and advertisements of every kind, nature and description, relating to the proposed acquisition under lease of certain car work shops with railway sidings at Moncton, New Brunswick. Presented 12th February, 1908.—*Mr. Barker*.*Not printed.*
- 108.** Return to an order of the House of Commons, dated 16th December, 1907, showing all coal lands leased, sold or otherwise disposed of from the 1st of March, 1907, to date, giving the area disposed of, the party to whom, the consideration therefor, the assignments made, if any, the date thereof, and the name of the assignee in each case. Presented 13th February, 1908.—*Mr. Ames*.*Not printed.*
- 108a.** Return to an order of the House of Commons, dated 26th February, 1908, showing, in respect of each of the undermentioned blocks disposed of as coal lands by the Government, viz.: Section 13, of township 9, range 4, west of the 5th m.; section 16, township 10, range 3, west of the 5th m., section 15, township 11, range 4, west of the 5th m.; section 20, township 12, range 4, west of the 5th m.; section 5, township 13, range 4, west of the 5th m., section 21, township 19, range 7, west of the 5th m.; when and by whom the first application was made for right to acquire; when and to whom the original grant of mining rights was made; what transfers of rights have been recorded, the date of transfer, and date of registration of same; who the present owner or occupant is, as known to the department; and the name and address of each company or person above referred to. Presented 16th March, 1908.—*Mr. Ames*.*Not printed.*
- 108b.** Return to an address of the House of Commons, dated 2nd March, 1908, for a copy of (a) an order in council of the 19th May, 1902, and the regulations therein referred to and approved for the disposal of coal lands, the property of the Dominion Government, in Manitoba, the Northwest Territories and British Columbia. (b) A copy of all orders in council altering, amending or cancelling any such regulations for the aforesaid purposes, and the said amended or other regulations. (c) A copy of all orders in council approving, amending or cancelling regulations as regards the Yukon for the purposes aforesaid, and the said regulations and amended regulations. Presented 24th March, 1908.—*Mr. Barker*.*Not printed.*
- 108c.** Return to an order of the House of Commons, dated 26th February, 1908, showing, in respect of each of the undermentioned blocks disposed of as coal lands by the Government, viz.: sections 2, 4, 9, 15, 17, and 28, of township 7, range 3, west of the 5th m., when and by whom the first application was made for right to acquire; when and to whom the original grant of mining rights was made; what transfers of rights have been recorded, when such transfers were dated, and when registered with the department; who the present owner or occupant is, as known to the department; and the name and address of each company or person above referred to. Presented 24th March, 1908.—*Mr. Ames*.*Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 108d.** Return to an order of the House of Commons, dated 26th February, 1908, for a copy of all inquiries, applications, leases, contracts, agreements, assignments, correspondence and papers of every description, in connection with or referring to the granting of coal mining privileges in section 11, township 8, range 4, west of the 5th meridian. Presented 27th March, 1908.—*Mr. Ames*... ..*Not printed.*
- 108e.** Return to an order of the House of Commons, dated 16th March, 1908, showing:
1. What leases for coal lands in the Northwest Territories were granted by the Government in the years 1903 and 1904. 2. To whom, and on what dates the same were granted, and the amounts paid therefor. 3. Whether the person to whom the lease was granted was the original applicant. 4. Whether any assignment of such leases has been made, when, and to whom. 5. Who the present holders are of said leases. Presented 1st April, 1908.—*Mr. Boyce*... ..*Not printed.*
- 108f.** Supplementary return to 108e. Presented 6th April, 1908... ..*Not printed.*
- 108g.** Return to an order of the House of Commons, dated 16th December, 1907, for a copy of all applications, reports, correspondence, leases, contracts, deeds, sale and documents of every description in connection with the purchase of coal mining lands either on their own behalf or on behalf of clients, by the firm of Hough, Campbell & Ferguson, or by any individual member of said firm, together with a copy of the regulations governing the sale of such rights at the time of purchase. Presented 30th April, 1908.—*Mr. Herron*... ..*Not printed.*
- 108h.** Return to an order of the House of Commons, dated 19th February, 1908, setting forth in respect of the following coal lands: 1. The name and address of the first applicant and the date thereof. 2. The names and addresses of all subsequent applications, with date thereof, in the order of application. 3. The name and address of the party to whom the mining rights were granted, with date of sale or lease by the Government. 4. Price paid per acre, sale or lease. 5. Date and amount of first payment on account of purchase price. 6. Dates and amounts of each subsequent payment on account of purchase price. 7. Total amount paid as purchase price and balance, if any, still unpaid. 8. How long reservation was made by the department in favour of the grantee or his assigns. 9. The name and address of all parties to whom assignments were made, with date of each assignment, and date of its registration with the department. 10. The name and address of present owner of said mining rights. 11. A copy of all correspondence in reference to the same: Township 7, range 3, west of 5th m.; sections 1, 2, 3, 4, 5, 6, less the s.e. $\frac{1}{4}$; section 7, less e. $\frac{1}{2}$; section 8; section 9; section 10, less s.w. $\frac{1}{4}$; section 11, less s.e. $\frac{1}{4}$; section 14, less e. $\frac{1}{2}$; section 15; section 16, less n.e. $\frac{1}{4}$; section 17; section 20, less e. $\frac{1}{2}$ of n.e. $\frac{1}{4}$; section 21, less s. $\frac{1}{2}$ and n.w. $\frac{1}{4}$; section 22; section 28; section 27, less e. $\frac{1}{2}$; section 32, less e. $\frac{1}{2}$; section 33; section 34, less e. $\frac{1}{4}$. Township 7, range 2, west of 5th m.; section 18, 20 and 21 Township 6, range 3, west of 5th m.; sections 27 and 28; section 32, less w. $\frac{1}{2}$; sections 33 and 34. Presented 22nd April, 1908.—*Mr. Ames*... ..*Not printed.*
- 109.** Return to an order of the House of Commons, dated 22nd January, 1908, showing on what dates since June 30th, 1906, advances were made on account of travelling expenses to Honourable L. P. Brodeur, to Mr. Wiallard, his private secretary, and to Napoléon Potvin, his messenger, respectively, for what amounts, and to what accounts they were severally charged; also what refunds, if any, have been made on any of these several advances, and on what dates. Presented 14th February, 1908.—*Mr. Foster*... ..*Not printed.*
- 109a.** Return showing all advances to Ministers of the Crown and their private secretaries, on account of travelling or other expenses in connection with the Imperial Conference of 1907, the date of such advances, and the appropriation against which it was charged. Presented 2nd March, 1908.—*Mr. Foster*... ..*Not printed.*

 CONTENTS OF VOLUME 18—*Continued.*

- 109b.** Return (as far as the Department of Inland Revenue is concerned), to an order of the House of Commons, dated 22nd January, 1908, showing the advances made each year since July 1, 1904, to December 31, 1907, on account of travelling expenses to Honourable L. P. Brodeur and his private secretary and messengers, the date and amount of each advance, and the appropriation to which it was charged, the dates at which each advance was finally accounted for, and the dates on which any repayments were made to the treasury, and the amount of such repayments, and all correspondence with the Auditor General's Department in connection therewith. Presented 2nd March, 1908.—*Mr. Foster*... ..*Not printed.*
- 110.** Return to an order of the House of Commons, dated 8th January, 1908, showing the total quantity of freight carried on the winter steamers between Prince Edward Island and the mainland during the past two seasons, 1905-6 and 1906-7; the amount of freight that was delayed in transit for those two seasons; the freight rate on the different classes of goods carried; the amount received for freight during those two seasons; the amount received for passengers and the number carried; the number of days the steamers failed to cross in each of those years; and the amount of damages paid to shippers for delay of goods in transit. Presented 14th February, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*
- 110a.** Return to an order of the House of Commons, dated 20th January, 1908, for a copy of all correspondence, telegrams, &c., in the possession of the Government or any member or official thereof, respecting the withdrawal of the winter steamers from Charlottetown on or about the 8th January, instant, and their replacement some days later. Presented 14th February, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*
- 111.** Return to an order of the House of Commons, dated 3rd February, 1908, for a copy of all correspondence, reports and papers, respecting the salary, expenses, duties and annual period of employment of W. Maxwell Smith, Dominion fruit inspector in British Columbia; also full details of his expenses during the years 1906 and 1907, respectively. 1908.—*Mr. Jackson (Elgin)*... ..*Printed for sessional papers.*
- 112.** Return to an order of the House of Commons, dated 13th January, 1908, for a copy of pedigree cattle, if any, did the Central Experimental Farm, Ottawa, sell during the years 1906 and 1907; and how many in each year, giving the different breeds, the name of purchaser, his place of residence, price paid, and breed. Presented 14th February, 1908.—*Mr. Jackson (Elgin)*... ..*Printed for sessional papers.*
- 113.** Return to an order of the House of Commons, dated 13th January, 1908, for a copy of all papers, accounts and correspondence, in connection with the seizure of the M. J. Wilson Cordage Company, of the city of Chatham, Ontario, by the Dominion Government, in the year 1904. Presented 17th February, 1908.—*Mr. Clements*... ..*Not printed.*
- 114.** Return to an order of the Senate, dated 31st January, 1908, showing the appointments made to the Senate from confederation, with date of appointment and date when the appointees ceased to be senators. Presented 11th February, 1908.—*Hon. Mr. Wilson.*
Printed for distribution.
- 115.** Return to an address of the Senate, dated 29th January, 1908, showing the number of persons killed and of those otherwise injured, separately, at railway crossings during the last three years, giving the number in each year separately; giving also for each year the number of persons thus killed or otherwise injured in thickly populated places separately from those killed or otherwise injured in the rural districts, showing also the number of such accidents at protected crossings separately from unprotected crossings. Presented 11th February, 1908.—*Hon. Mr. Bêlique*... ..*Not printed.*
- 116.** Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all communications, reports, correspondence, or other papers, between the Depart-

CONTENTS OF VOLUME 18—Continued.

ment of the Interior and any of its officials, and A. Samovici, H. Bolocan, and any other person or persons in regard to the n.w. $\frac{1}{4}$ section 20, township 22, range 13, west 2nd m., including applications for cancellation, protections, homesteads, inspectors' reports, &c. Presented 18th February, 1908.—*Mr. Lake*... ..*Not printed.*

117. Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all correspondence between the Departments of the Marine and Fisheries and Justice of Canada and the Attorney General of Nova Scotia, or any official acting under his authority, in connection with the suit in the Supreme Court of Nova Scotia of the King by Dr. Tait, of Cheticamp, in the county of Inverness, Nova Scotia, versus William Ancoin. Presented 18th February, 1908.—*Mr. McLennan*... ..*Not printed.*
118. Return to an order of the House of Commons, dated 18th December, 1907, for a copy of all contracts for food for men at the volunteer camps throughout Canada for the season of 1907; also for the regular troops at Halifax, Quebec and other places. Presented 18th February, 1908.—*Mr. Smith (Wentworth)*... ..*Not printed.*
119. Return to an order of the House of Commons, dated 3rd February, 1908, for a copy of all correspondence between the Railway Commission and the Department of Railways and Canals, or the Intercolonial Railway, and between the Railway Commission and the Canadian Pacific Railway, and the Grand Trunk Railway, and between the Railway Commission and the Fredericton Board of Trade, in reference to the alleged discrimination against the city of Fredericton in the matter of freight rates; and also for a copy of all other papers and documents on file with the Railway Commission in relation thereto. Presented 19th February, 1908.—*Mr. Crocket*... ..*Not printed.*
120. Return to an order of the House of Commons, dated 16th December, 1907, for a copy of all offers, reports, valuations, plans, deeds of purchase, correspondence and other papers of every description in connection with the purchase of site for the new Montreal examining warehouse, together with a statement of all expenditure and all indebtedness incurred to date in this connection. Presented 19th February, 1908.—*Mr. Amcs*... ..*Not printed.*
121. Return to an order of the Senate, dated the 30th January, 1908, showing: 1. Title of each Bill by years sent by the Senate to the House of Commons, from 1867 to 1907, inclusive, that was (a) amended by the House of Commons, or (b) rejected. 2. Title of each Bill by years sent up by the House of Commons to the Senate, from 1867 to 1907, inclusive, that was (a) amended by the Senate, or (b) rejected. 3. The total number of Bills for each year as above to be tabulated in four periods, (a) 1867 to 1873, inclusive; (b) 1874 to 1878, inclusive; (c) 1879 to 1896, first session, inclusive; (d) 1896 to 1907, inclusive. Presented 19th February, 1908.—*Hon. Mr. Ross (Middlesex)*... ..*Not printed.*
122. Report of the commissioners appointed to inquire into a dispute between the Bell Telephone Company of Canada (Limited) and the operators of the said company at Toronto, with respect to wages and hours of employment, etc. Also copy of evidence taken under Royal Commission in the dispute between the Bell Telephone Company of Canada and its operators, in February, 1907. Presented 24th February, and 11th March, 1908, by Hon. R. Lemieux... ..*Not printed.*
123. Return to an order of the House of Commons, dated 17th February, 1908, for a copy of the contract and all correspondence relating to a payment of \$3,900 to the Midland Towing and Wrecking Company, as set out at page P—32 of the Auditor General's Report for 1906-7, and of the advertisement calling for tenders. Presented 10th March, 1908.—*Mr. Bennett*... ..*Not printed.*
124. Return to an order of the House of Commons, dated 18th December, 1907, showing what sums have been expended or voted for the dredging of the Rivière à la Grasse, at Rigaud; to whom the contracts were given; and what sums have been voted or paid out for dredging Dorion Bay, Vaudreuil station. Presented 24th February, 1908.—*Mr. Bergeron*... ..*Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 124a.** Return to an order of the House of Commons, dated 18th December, 1907, showing what sums have been voted or expended for the dredging of the river bottom between Charlemagne and Terrebonne; since when the dredging has been going on there; what sums have been voted or expended for wharfs at Terrebonne and at St. Francois de Sales; and who obtained the contracts. Presented 24th February, 1908.—*Mr. Bergeron.*
Not printed.
- 124b.** Return to an order of the House of Commons, dated 11th December, 1907, showing:
1. What harbours or rivers in the province of Ontario were tenders invited for dredging work by the Department of Public Works during the present year. 2. The names of the successful tenderers at each of the said places for which dredging tenders were invited in Ontario in 1907, and the prices asked by each party respectively. 3. Amounts of the tenders respectively of the different persons tendering at each of the foregoing points. 4. Also at what points new tenders were invited, and when the first tenders were accepted. Presented 9th June, 1908.—*Mr. Bennett.**Not printed.*
- 124c.** Return to an order of the House of Commons, dated 6th of April, 1908, for a copy of all the correspondence exchanged between the Government and Messrs. T. B. Mongenais, Hugh McMillan and others, relating to dredging work done in the River Rigaud, formerly the River Graisse, up to the year 1890. A copy of the reports and correspondence relating to the construction or purchase of the Graham wharf. A copy of the report and correspondence relating to the dredging done at Como up to 1900. A copy of the reports and correspondence relating to the dredging done at Vaudreuil Village, and also those relating to the construction and repair of the wharf situated in that village since 1867. And also a copy of the report and correspondence relating to the deepening of the River St. Louis at Beauharnois. Presented 30th June, 1908.—*Mr. Boyer.**Not printed.*
- 125.** Return to an order of the House of Commons, dated 3rd February, 1908, for a copy of all correspondence, telegrams, engineer's reports, &c., in the hands of the Government or any member or official thereof, respecting proposed repairs to the wharf at Little Sands, in Prince Edward Island. Presented 25th February, 1908.—*Mr. Martin (Queen's).*
Not printed.
- 126.** Return to an order of the House of Commons, dated 12th February, 1908, for a copy of the report made by John Fraser, of the Auditor General's Department, on the 7th January, 1898, of a special examination held by him of the financial affairs of the Montreal Turnpike Trust. Presented 10th March, 1908.—*Mr. Monk.**Not printed.*
- 126a.** Return to an order of the House of Commons, dated 22nd January, 1908, showing:
1. The present indebtedness to the Dominion Government of the Montreal Turnpike Trust (a) on capital account, (b) for arrears of interest. 2. The amounts collected at each toll gate belonging to the said Turnpike Trust during the three years ending 31st December, 1905, 1906, 1907, respectively. 3. The names of all parties who have commuted their tolls during each of the above-mentioned years, 1905, 1906, 1907, and the amount of the commutation money paid to the Trust in each case. 4. The amounts expended on each section or road division, under the control of the said Trust, during each of the said years, ending 31st December, 1905, 1906, and 1907, respectively, and the contracts given out during each of the said years, with the name of the contractor and the date and amount involved in each case; and a statement in each case also as to whether the contract was awarded after tender called through the newspapers. 5. The amount paid out during each of the said three years, 1905, 1906, 1907, at each toll gate for salaries of day and night guardians, and any other expenditure at each of the toll gates maintained. 6. The names of all parties holding passes for free use of the roads under control of said Trust, during each of the said three years above referred to, 1905, 1906, 1907, with a statement in each case of the reason why the pass was so granted. 7. The expense of the said Trust during each of the said years, for rent, salaries of the

CONTENTS OF VOLUME 18—*Continued.*

- office, inside or outside service, giving name and remuneration of each official. 8. The actual present indebtedness in detail of the said Trust outside of its bonds due to the Government of Canada. 9. The amounts collected, by said Trust, year by year, since the 1st February, 1905, from municipalities under special agreements made as to their share pro rata of the bonded indebtedness of the Turnpike Trust. 10. The names of all those members of the Trust appointed or elected to represent the bondholders since the 1st July, 1896, with the date of the election in each case. 11. The amounts paid by the Trust to any of its members or officials during each of the said three years, 1905, 1906, 1907, whether as travelling or personal expenses, or indemnity for attendance or for any other reason whatever. 12. The name of the auditor of the Trust, and the date of the audit made of the company's affairs, in each of the said three years, 1905, 1906, 1907, respectively. 13. A copy of the agreements between the Trust and any municipalities on the Island of Montreal, by which the Trust ceded to said municipalities any portion of its roads, said copy to be certified by the president and secretary of said Trust. Presented 20th March, 1908.—*Mr. Monk*... ..*Not printed.*
127. Return to an address of the Senate, dated 24th January, 1908, for a copy of the different tariffs in force upon the Intercolonial Railway, in 1896-7 and 1906-7, between Quebec and St. Flavie, and all intermediate stations between those two points, for the carriage of passengers or of goods, under the operation of the winter-tariff and under that of the summer-tariff. Presented 24th February, 1908.—*Hon. Mr. Landry*... ..*Not printed.*
128. Statement of the affairs of the British Canadian Loan and Investment Company, Limited, for the year ended the 31st of December, 1907. Presented 25th February, 1908, by the Hon. The Speaker... ..*Not printed.*
129. Return to an order of the House of Commons, dated 19th February, 1908, showing how much money has been paid since 1896 to the Eclipse Manufacturing Company of Ottawa; how much each year; and the general character of the supplies furnished. Presented 27th February, 1908.—*Mr. Blain*... ..*Not printed.*
130. Return to an order of the House of Commons, dated 10th February, 1908, for a copy of all correspondence between Mr. A. E. Dymont, M.P., and the Department of Marine and Fisheries as to granting of pound net licenses in 1905 to Messrs. Low & Roque, of Killarney, as also to any other persons; also a list of persons to whom pound net licenses were granted in that year. Presented 27th February, 1908.—*Mr. Bennett*.
Not printed.
131. Return to an order of the House of Commons, dated 12th December, 1907, showing:
1. The number of disputes dealt with under the Industrial Disputes Investigation Act, 1907, to the 1st of December, 1907. 2. The dates at which the several applications for the operation of the Act have been received. 3. Names of the parties concerned in the several disputes. 4. Name of the party making application. 5. Locality of dispute. 6. Number of persons affected. 7. Nature of dispute. 8. Names of members of board of conciliation and investigation where same has been established. 9. Date on which board was established. 10. Date of sittings of board. 11. Result of the reference of the dispute under Act. Presented 27th February, 1908.—*Mr. Smith (Nanaimo)*.
Not printed.
132. Return to an order of the House of Commons, dated 12th February, 1908, for a copy of correspondence, plans, and other data in connection with the flooding of roads above the dam at Wilberforce, in Haliburton County, and the proposals, if any, for improving said roads and the bridge so as to prevent obstruction of traffic. Presented 27th February, 1908.—*Mr. Hughes (Victoria and Haliburton)*.... ..*Not printed.*
133. Return to an order of the House of Commons, dated 17th February, 1908, for a copy of reports, plans, surveys, and other data, in connection with the proposal to construct a branch canal from Balsam Lake, on the Trent Canal, to the head of Gull River waters, in Haliburton County. Presented 27th February, 1908.—*Mr. Hughes (Victoria and Haliburton)*... ..*Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

134. Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all correspondence received by the Department of Agriculture in connection with the inspection of meats and the regulations in connection with the Inspection of Meats and Canned Foods Bill. Presented 27th February, 1908.—*Mr. Clements*.*Not printed.*
- 134a. Return to an order of the House of Commons, dated 9th March, 1908, for a copy of all correspondence, telegrams, reports and recommendations in possession of the Government, with respect to the inspection of packing houses, or the Meat Inspection Act, including the appointment of inspectors. Presented 25th March, 1908.—*Mr. Armstrong*.
Not printed.
135. Return to an order of the Senate, dated 26th February, 1908, for a detailed statement of the expenses incurred during the past three years, in connection with the synoptical reports of the debates of the Senate, furnished by the special reporter of that House, as well as a statement of the nature and particulars of the agreement with the present reporter. Presented 27th February, 1908.—*Hon. Mr. Wilson*.*Not printed.*
136. Return to an address of the Senate dated 11th February, 1908, showing the amount of imports of oxide of aluminum during the years 1903, 1904, 1905, 1906 and 1907, with the values of such imports for each one of said years separately. Presented 28th February, 1908.—*Hon. Mr. Ellis*.*Not printed.*
- 136a. Return to an address of the Senate, dated the 11th February, 1908, showing the amount of aluminum exported during the years 1903, 1904, 1905, 1906 and 1907, with the values of such exports for each one of the said years separately. Presented 28th February, 1908.—*Hon. Mr. Ellis*.*Not printed.*
137. Regulations in virtue of the provisions of the Act 6-7 Edward VII., chapter 16, "The Electricity and Fluid Exportation Act," Presented 17th March, 1908, by *Hon. W. Templeman*.*Not printed.*
138. Return to an order of the House of Commons, dated 22nd January, 1903, for a copy of all correspondence, documents, resolutions and other papers, which have passed between the Government of Canada, or any member of the Government, and any railway company or any individual relating to the building of a railroad from any point in Manitoba, Saskatchewan, Alberta, or British Columbia, to Fort Churchill or any point on Hudson Bay. Presented 2nd March, 1908.—*Mr. Schaffner*.*Not printed.*
139. Copy of an order in council appointing *Mr. Samuel Tovel Bastedo*, agent on behalf of the Dominion Government, to confer with the provincial governments with a view to settlement of the Fisheries question. Presented 11th March, 1908.—*Hon. L. P. Brodeur*.
Not printed.
140. Return to an order of the House of Commons, dated 12th February, 1908, for a copy of all correspondence, papers, writings, plans and letters between the Government and the International Waterways Commission, on one part, and the St. Lawrence Power Company and the Long Sault Development Company, of the other part, with regard to the entire damming of the St. Lawrence river, in the vicinity of Cornwall; together with a copy of all memorials, letters and resolutions of protest sent to the Government by the Board of Trade of Montreal, the Chambre de Commerce, District de Montreal, the Shipping Federation of Montreal, the Dominion Marine Association, and others. Presented 2nd March, 1908.—*Mr. Gervais*.*Not printed.*
- 140a. Supplementary return to No. 140. Presented 13th July, 1908.*Not printed.*
141. Return to an order of the House of Commons, dated 17th February, 1908, for a copy of advertisement calling for tenders for dredging work on Holland river, Trent Valley canal system, tenders received, schedules showing prices paid, recommendation of person for inspector, date of payments made to the contractors, and the contract with contractor. Presented 2nd March, 1908.—*Mr. Bennett*.*Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 141a. Return to an order of the House of Commons, dated 13th January, 1908, showing what contracts for dredging in the St. Mary's river, Kaministiquia river, Mission river, Port Arthur harbour, Fort William harbour, and in Thunder Bay, or of any of the inlets or rivers thereof, have been let during the years 1904, 1905, 1906 and 1907, showing also: (a) the names, addresses and calling of all the tenderers in each case; (b) the amount of each tender; (c) the nature and extent of the work to be let in each case; (d) the names, addresses and calling of the successful tenderer in each case; (e) the prices at which each contract was let, (f) the nature or form of security for the due performance of the work in each case, and (g) the disposition of or change in the form of any such security after it was originally given or deposited; also, for a copy of all tenders, contracts, bonds or other securities, and of all correspondence relating or incident to all or any such tenders or contracts, including all correspondence relating to such contracts, or incident thereto, before and during the performance of the work and on file up to the date of the order for such return. Presented 17th July, 1908.—*Mr. Boyce.*
Not printed.
142. Return to an address of the House of Commons, dated 18th December, 1907, for a copy of all orders in council, correspondence, contracts, papers and reports in connection with the employment of certain experts to prepare a system of accounting and book-keeping in the Department of Marine and Fisheries. Presented 2nd March, 1908.—*Mr. Foster.*
Not printed.
143. Return to an order of the House of Commons, dated, 11th December 1907, for a copy of all correspondence in connection with the application, granting, operation or renewal of license and lease conveying the privileges of fishing in Cedar, Moose, Cormorant and Clearwater Lakes; also a copy of said license and lease. Presented 3rd March, 1908.—*Mr. Ames.**Not printed.*
144. Certain papers referring to Treaty Powers, &c. Presented 3rd March, by Hon. L. P. Brodeur.*Printed for sessional papers.*
145. Return to an order of the House of Commons dated 11th March, 1907, for a copy of all papers, affidavits and correspondence between the Government, or any official thereof, with the Prince Edward Island Railway, or any official thereof, or any other persons in reference to the leasing of the properties of Widow James Wiggins and Charles Malley, at Alberton, Prince Edward Island. Presented 3rd March, 1908.—*Mr. Lefurgey.*
Not printed.
146. Return to an order of the House of Commons, dated 11th December, 1907, showing the total amount of money paid yearly from the year 1892 to 1st December, 1907, on each of the following accounts: (a) Salary of Governor General; (b) Travelling expenses of Governor General; (c) Expenditure on Rideau Hall, capital account; Expenditure on Rideau Hall, maintenance; Expenditure on Rideau Hall grounds, capital account; Expenditure on Rideau Hall grounds, maintenance; (d) Expenditure on furnishings of all kinds for Rideau Hall; (e) Expenditure on any other account in connection with the office of Governor General; (f) Expenditure on any other account in connection with Rideau Hall and grounds; (g) Total expenditure of every kind yearly since 1892 in connection with the office of Governor General; (h) Total expenditure of every kind yearly in connection with Rideau Hall grounds. Presented 5th March, 1908.—*Mr. Wilson (Lennon and Addington).**Not printed.*
147. Return to an address of the House of Commons, dated 15th January, 1908, for a copy of all correspondence, telegrams, orders in council, contracts and tenders, with the names, and amounts of each, in possession of the Government, or any member or official thereof, respecting the construction of a breakwater at Petit Rocher, on the south-western side of Baie des Chaleurs, as detailed on page 74 of the Report of the Minister of Public Works for the year ended 31st March, 1907. Presented 5th March, 1908.—*Mr. Taylor.**Not printed.*
- 147a. Supplementary Return to 147. Presented 12th June, 1908.*Not printed.*

CONTENTS OF VOLUME 18—*Continued.*

- 148.** Return to an order of the House of Commons, dated 17th February, 1908, showing the individual name and place of residence of the captain and crew of each of the Government steamers *Lansdowne, Aberdeen, Druid, Brant, Lady Laurier, Minto* and *Stanley*. Presented 5th March, 1908.—*Mr. Stanfield*. *Not printed.*
- 148a.** Return to an order of the Senate, dated the 5th of February, 1908, for a statement showing, in so many columns: 1. The names of the officers actually employed on board of Government vessels or of vessels hired by the Government for the season of navigation in the River St. Lawrence. 2. The amount of wages or salaries paid monthly to each of them for the period of their annual engagement. 3. The amount of wages or salaries paid monthly to those who are only employed for a part of the year. 4. The amount of wages or salaries paid monthly to those who, over and above their real service, are paid a part of their wages or salaries during the months in which the vessels are laid up for the winter. Presented 20th February, 1908.—*Hon. Mr. Landry*. *Not printed.*
- 149.** Return showing what changes have occurred in the House of Commons branches of the Clerk of the House and the Sergeant-at-arms' service since 1st July, 1907. Presented 5th March, 1908.—*Mr. Owen*. *Not printed.*
- 150.** Return to an order of the House of Commons, dated 10th February, 1908, showing: 1. How many Returns or Sessional Papers have been presented to Parliament in answer to motions for the same, since the 1st of January, 1906. 2. How many of these Returns were taken out of the Office of Routine and Records, and the Journal Office, by members of this House, since the above date, giving also the name of the member to whom delivered. 3. For what length of time such Returns were retained by the members who obtained them. 4. How many of these Returns had not been returned to the proper officer of the House of Commons on the 1st of January, 1908. 5. In the case of those returned, how long they were out with the members. 6. How many of these Returns are still in the possession of the members, and how long they have had them. 7. The means usually adopted by the Clerk of Routine and Records and the Clerk of Current Sessional Papers to have outstanding returns retransferred to their possession. 8. The average cost to the country of preparing these Returns by the various departments interested, during the above period. Presented 6th March, 1908.—*Mr. Johnston*. *Not printed.*
- 151.** Return to an order of the House of Commons, dated 16th December, 1907, showing: 1. The number of fishing licenses, the names of the parties to whom issued, and also the amounts of the revenues received from each license, on any or all of the lakes in the province of Saskatchewan. 2. For a copy of all correspondence in connection with each license so issued and in force, or about to be issued. 3. Also for a copy of the different forms used for fishing licenses in the province of Saskatchewan. Presented 9th March, 1908.—*Mr. Chisholm (East Huron)*. *Not printed.*
- 152.** Return to an order of the House of Commons, dated 20th January, 1908, for a copy of all correspondence, documents and papers, in the investigation into the case of Mr. O. S. Finnie, chief clerk in the gold commissioner's office, Dawson, Y.T. Presented 6th March, 1908.—*Mr. Thompson*. *Not printed.*
- 153.** Return to an order of the House of Commons, dated 19th February, 1908, for a copy of all correspondence between Lieut.-Colonel Mallette, of the 64th Battalion, and the Department of Militia and Defence, concerning Major Sabourin, of St. John, Quebec. Presented 6th March, 1908.—*Mr. Bergeron*. *Not printed.*
- 153a.** Return to an order of the House of Commons, dated 19th February, 1908, for a copy of all correspondence between Lieut.-Colonel Mallette, of the 64th Battalion, and the Department of Militia and Defence, for the organization of a regiment in Valleyfield, Quebec. Presented 6th March, 1908.—*Mr. Bergeron*. *Not printed.*

CONTENTS OF VOLUME 18—*Concluded.*

154. Report of the Royal Commission on the Quebec Bridge inquiry; also the Report on the Design of the Quebec Bridge by C. C. Schneider; with Appendices. Presented 9th March, 1908, by Hon. G. P. Graham.

Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 19.

154. (Vol. 2.) Royal Commission Quebec Bridge inquiry. Minutes of proceedings. Evidence and exhibits. *Printed for both distribution and sessional papers.*

- 154a. Return to an address of the House of Commons, dated 12th December, 1907, for a copy of all orders in council, correspondence, reports, memoranda, papers and documents, since the 1st day of January, 1900, relating to the Quebec Bridge, including all reports and orders in council, relating to the plans and specifications for the works of the undertaking, or to any approval thereof by the Governor in Council, or by the Department of Railways and Canals. Presented 26th May, 1908.—*Mr. Borden (Carleton).*

See No. 154.

- 154b. Return to an address of the Senate, dated 29th January, 1908, for a statement showing:
1. If the Quebec Bridge and Railway Company has fulfilled the obligation which was imposed upon it by clause 4 of the agreement made, between it and the Government, on the 19th day of October, 1908, which clause reads as follows: "4. The company will procure subscriptions for additional stock to the amount of \$200,000, such new stock to be issued at a price not below par and to be immediately paid up in full, the proceeds to be applied in the first place to the payment of the discount at which the bonds of the company were issued as aforesaid, to wit the sum of \$188,721." (Being exactly the difference between the sum of \$472,000, the amount of bonds issued, and the sum of \$283,279, for which these same bonds were accepted.)
 2. When did the company so furnish subscriptions for additional work to the amount of \$200,000.
 3. Who are the persons or the companies who divided among them this additional stock to the round sum of \$200,000.
 4. On what date and for what amount did each of these persons or each of these companies become owner of the aforesaid stock.
 5. On what date did each of the aforesaid persons or companies pay into the hands of the company the price (in part or in whole) of the stock so subscribed.
 6. And if this amount of \$200,000 was paid in full and in what manner, distinguishing the amount paid in cash from the amount paid in promissory notes or in any other ways.
- Presented 2nd June, 1908.—*Hon. Mr. Landry.* *See No. 154.*

- 154c. Return to an address of the Senate, dated the 29th January, 1908, showing:
1. The amount of money really paid by each of the present directors of the Quebec Bridge and Railway Company into the capital stock of the said company.
 2. The date each of these directors made each of his payments.
 3. Among these payments or instalments the proportion or amount that has been paid by means of promissory notes or of unaccepted cheques.
 4. By whom individually, and for what amount each one.
 5. The amount of money each of its directors has received from the Quebec Bridge Company and from the Quebec Bridge and Railway Company up to this date, directly or indirectly, personally or otherwise.
 6. The nature of the services rendered for which each of these amounts was paid.
 7. The amount the present secretary has received out of the funds of the company since he has been in the service thereof.
 8. The resolution that subsequently to the collapse of the Quebec Bridge, within a few days immediately following the disaster, the bridge company has voted giving a bonus of \$3,000 to its president.
 9. The name of the funds, out of which the amount of this bonus was raised.
 10. The resolution, if any, the company, on the same occasions, voted to aid the families of the victims of that disaster.
- Presented 18th February, 1908.—*Hon. Mr. Landry.*

Not printed.

155. Return to an order of the House of Commons, dated 10th February, 1908, showing what land has been withdrawn for settlement, or set apart, or sold, for colonization pur-

CONTENTS OF VOLUME 19—Continued.

- poses, since 1896; the location and amount in each case, specifying townships, sections, half or quarter-section; to whom it has been sold, or alienated, and on what terms of settlement; the price per acre, on terms of payment, and the nationality of the settlers in each colony; when the land was sold, alienated, reserved, or set apart, for such purpose, in each case; and how many of these companies have complied with their contracts, and to what extent. Presented 9th March, 1908.—*Mr. Sproule*... ..*Not printed.*
- 155a. Return to an order of the House of Commons, dated 26th February, 1908, showing what lands, if any, have been reserved for grazing purposes or for acquisition by means of irrigation within the tract described as follows: Townships 12 to 19, inclusive, in ranges 15 to 21, west of the 4th meridian; and when such lands were so reserved, and for how long it is the purpose of the Government to continue such reservation. Presented 16th March, 1908.—*Mr. Lennox*... ..*Not printed.*
- 155b. Return to an order of the House of Commons, dated 11th March, 1908, for a copy of all correspondence, telegrams, reports, applications, surveyors' plans and maps, in reference to the homestead entries for the southwest quarter of section 27, township 18, range 10, east, in the province of Manitoba. Presented 27th March, 1908.—*Mr. Staples.*
Not printed.
- 155c. Return to an order of the House of Commons, dated 29th January, 1908, for a copy of all correspondence, applications, recommendations for patent, and all papers in any way relating to the disposal of or granting of privileges in connection with the s.e. ¼ of section 2, township 8, range 2, west of the 5th meridian. Presented 3rd April, 1908.—*Mr. Herron*... ..*Not printed.*
- 155d. Return to an order of the House of Commons, dated 23rd March, 1908, for a copy of all correspondence, applications and all other papers and documents relating in any way to any and all applications for or in connection with or relating to the southeast quarter of section 14, township 12, range 6, west 4th meridian. Presented 6th April, 1908.—*Mr. Herron*... ..*Not printed.*
156. Return to an order of the House of Commons, dated 2nd March, 1908, showing who made the seizures under the Inland Revenue Department in the fiscal years 1906 and 1907, in Cornwall, London, Ottawa, St. Catharines, Toronto, Joliette and Montreal, and what the seizures consisted of; the name of the party or parties from whom the material was seized; the amount realized by the sale of such seized material; and how this seized material was disposed of. Presented 9th March, 1908.—*Mr. Barr.*
Not printed.
- 156a. Return to an order of the House of Commons, dated 26th February, 1908, showing the number of seizures under the Inland Revenue Department in the years 1906 and 1907, the name of the party or parties making the seizure; the description and quantity of material seized; the name of the parties from whom the material was seized; how the seized material was disposed of, whether by public auction or by private sale, and what the amount realized thereon was. Presented 9th March, 1908.—*Mr. Barr*...*Not printed.*
- 156b. Return to an order of the House of Commons, dated 9th March, 1908, showing the number of seizures made by the Customs Department for the fiscal years 1905, 1906 and 1907; the reason for each seizure; the disposition of each case; the amount received by the Government, and by the party seizing or giving information in each case; and the names of the ports at which such seizures took place. Presented 23rd April, 1908.—*Mr. Cockshutt*... ..*Not printed.*
- 156c. Return to an order of the House of Commons, dated 4th May, 1908, showing the names of all officers employed in the Customs Department at the ports of Niagara Falls, Port Erie, Sarnia and Windsor; the rank and duties of their respective appointments, their salaries at the time of appointment, present rank, and increase of salary to any of these officers since date of their appointment. Presented 4th May, 1908.—*Hon. W. Paterson*... ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

157. Return to an order of the House of Commons, dated 8th January, 1908, for copies of all documents, petitions, memoranda and correspondence received by the Government since 1904, to this day, regarding the amendments to be made to the Inland Revenue Act for the purpose of encouraging and protecting still more the Canadian tobacco industry. Presented 9th March, 1908.—*Mr. Dubeau*.*Not printed*
- 157a. Return to an order of the House of Commons, dated 12th February, 1908, for a copy of all correspondence between the collector of customs at Charlottetown, Prince Edward Island, and the Minister of Customs, or the Commissioner of Customs, including declarations or statements in writing made by Messrs. Donald Nicholson and Evelyn B. Harnett, of the Hickey & Nicholson Tobacco Company, Limited, respecting alleged infraction of the provisions of the Inland Revenue Act, and of the regulations in respect of tobacco and cigars and tobacco and cigar manufactories, by Messrs. T. B. and D. J. Riley, of Charlottetown, or one of them. Also a copy of the reports of William Caven and other officials and collectors of Inland Revenue; and of all correspondence, letters and telegrams between the said T. B. and D. J. Riley, or either of them, and the Government, or any department, or officer thereof; and of all correspondence between the officers of Inland Revenue in Charlottetown and the Government or any department or official thereof, respecting said alleged infraction of said Act or regulations; and all other correspondence, statements and information in possession of the Government relating to the matter aforesaid; together with a statement of the moneys paid voluntarily or otherwise in settlement or otherwise of penalties for such infraction of the law, to whom paid, and the date of payment. Presented 16th March, 1908.—*Mr. McLean (Queen's)*.*Not printed.*
158. Papers relating to Trade Conference at Barbados. Presented 10th March, 1908, by Hon. W. S. Fielding.*Not printed.*
159. Return to an order of the House of Commons, dated 29th January, 1908, for a copy of all applications, tenders, correspondence, telegrams, or written communications of any kind, in connection with the sale of certain lands in the Ocean Man, Pheasant Rump, and Chasastapsin Indian Reserves, on the 15th November, 1901; together with a copy of advertisements of sales, the names of the newspapers in which they were inserted, and the dates of insertion. Presented 12th March, 1908.—*Mr. Lake*.*Not printed.*
160. Return to an order of the House of Commons, dated 22nd January, 1908, showing how many fire extinguishers were purchased by the Government for the different departments of the public service since the 30th June, 1906, to January 1st, 1908; from whom they were purchased, and at what price; and the total amount paid for the same. Presented 12th March, 1908.—*Mr. Taylor*.*Not printed.*
- 160a. Supplementary Return to an order of the House of Commons, dated 22nd January, 1908, (as far as the Department of Marine and Fisheries is concerned), showing how many fire extinguishers were purchased by the Government for the different departments of the public service since the 30th of June, 1906, to 1st January, 1908; from whom they were purchased, and at what price; and the total amount paid for the same. Presented 26th March, 1908.—*Mr. Taylor*.*Not printed.*
161. Return to an order of the House of Commons, dated 22nd January, 1908, for a copy of all letters, correspondence, plans, surveys, estimates, &c., in connection with the proposal to open a waterway in St. Anicet and Ste. Barbe, in the county of Huntingdon, from Lake St. Francis to St. Louis River. Presented 12th March, 1908.—*Mr. Walsh (Huntingdon)*.*Not printed.*
162. Return to an order of the House of Commons, dated 12th March, 1908, for copies of all correspondence between the Auditor General and the Department of Marine and Fisheries, concerning the travelling expenses of Commander Spain in 1905-6. Presented 12th March, 1908.—*Hon. L. P. Brodeur*.*Not printed.*

 CONTENTS OF VOLUME 19—*Continued.*

- 163.** Return to an order of the House of Commons, dated 12th February, 1908, showing:
 1. The total revenue of Belleville, Ontario, Harbour, for the years 1903, 1904, 1905, 1906 and 1907. 2. The expenditure for the years above-mentioned in the harbour; (a) for salaries, and to whom, (b) dredging in each year; (c) for building retaining walls along the river at entrance of harbour; and (d) to whom or what persons such last-named sums were paid. 3. What money, if any, the Government has advanced to the Harbour Commissioners of Belleville for improvements, how much and when. 4. If any money has been advanced, what security the Government holds for repayment of the same. 5. The tenders received for building the retaining walls for improvement of Belleville Harbour, the tenderers, the amount of each tender, and to whom the contract was awarded. Presented 13th March, 1908.—*Mr. Porter*. *Not printed.*
- 164.** Copy of the order in council appointing Mr. Richard L. Drury, of Victoria, B.C., as a special officer of the Immigration Branch of the Department of the Interior in Japan. Presented 17th March, 1908, by Sir Wilfrid Laurier. *Not printed.*
- 165.** Return to an order of the House of Commons, dated 19th February, 1908, for a copy of all letters, telegrams, reports, documents and papers (so far as the same are not of a confidential character) in relation to the trial and conviction of one Frederick Blunden, for cattle stealing at Macleod, in the province of Alberta, in 1904. Presented 19th March, 1908.—*Mr. Ward*. *Not printed.*
- 166.** Return to an order of the Senate, dated the 17th March, 1908, for a copy of the Minutes of the meeting of the Standing Committee of the Senate on Railways, Telegraphs and Harbours, held on the 21st and 22nd of May, 1901, be laid on the table. Presented 18th March, 1908.—*Hon. Mr. Landry*. *Not printed.*
- 167.** Return to an order of the House of Commons, dated 23rd March, 1908, for a copy of the interim report of the commissioner appointed to investigate alleged irregularities at Sorel in connection with construction of piers on Lake St. Peter. Presented 23rd March, 1908.—*Hon. L. P. Brodeur*. *Not printed.*
- 168.** Return to an order of the House of Commons, dated 20th January, 1908, showing all fines imposed for violation of the Fisheries Act in Division No. 2, Nova Scotia, comprising the counties of Antigonish, Colchester, Cumberland, Guysborough, Halifax, Hants and Pictou, showing the amount of each fine, dates on which same were imposed and paid, the place of trial in each case, the offence charged, and the names of the convicting justices or fishery officers. Presented 23rd March, 1908.—*Mr. Sinclair*.
Not printed.
- 169.** Return to an address of the House of Commons, dated 11th March, 1908, for a copy of all orders in council, reports, correspondence, documents, letters and papers not already brought down, relating to a grant by His Majesty of any Indian reserves in the province of British Columbia to the Grand Trunk Pacific Railway Company, or to any officer of the company, or to any person on behalf of that company. Presented 24th March, 1908.—*Mr. Borden (Carleton)*. *Printed for sessional papers.*
- 170.** Return to an order of the House of Commons, dated 20th January, 1908, showing the amount paid each year for provisions on each of the Government steamers for the last three fiscal years, the average complement of officers and men provisioned on each for each year, and the cost per man per day. Presented 24th March, 1908.—*Mr. Foster*.
Not printed.
- 171.** Return to an order of the House of Commons, dated 12th February, 1908, for a copy of all petitions and correspondence relating to the establishment of a post office at Mill Settlement, West, and also at north side of Newcastle Creek, in the electoral division of Sunbury and Queen's. Presented 26th March, 1908.—*Mr. Wilmot*. *Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

- 171a. Return to an order of the House of Commons, dated 11th March, 1908, for a copy of all letters, petitions, correspondence and other papers in connection with the application to establish a post office at North Grove, in the county of Grenville. Presented 3rd April, 1908.—*Mr. Reid (Grenville)*... ..*Not printed.*
- 171b. Return to an order of the House of Commons, dated 29th January, 1908, for a copy of all letters, telegrams and petitions, in possession of the Government, or any member or official thereof, respecting the dismissal of Mrs. Mary Finlay as postmistress at the head of St. Peter's Bay, and the appointment of her successor. Presented 3rd April, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*
- 171c. Return to an order of the House of Commons, dated 18th December, 1907, showing the number of post offices receiving daily, tri-weekly, semi-weekly, and weekly mails, in each county of the provinces of New Brunswick and Nova Scotia, and the total postal revenue and expenditure in each of said counties. Presented 3rd April, 1908.—*Mr. Crocket*... ..*Not printed.*
- 171d. Return to an order of the House of Commons, dated 16th March, 1908, for a copy of all correspondence, telegrams, petitions, &c., in possession of the Government or any member or official thereof, respecting the dismissal of Archibald McDonald as postmaster at Whim Road Cross, Prince Edward Island, and the appointment of William McGinnon as his successor. Presented 3rd April, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*
- 171e. Return to an order of the House of Commons, dated 11th December, 1907, showing what complaints respecting the inadequacy of postal service or delays therein, or respecting lack of or defects in postal facilities or means of communications, have been received by the Post Office Department since the 1st day of January, 1907, and the general nature of such complaints. Presented 29th April, 1908.—*Mr. Armstrong*... ..*Not printed.*
- 171f. Return to an order of the House of Commons, dated 9th March, 1908, for a copy of all petitions, letters of recommendation, written requests and correspondence with the government in connection with the opening of a Post Office Savings Bank in the post office at St. Gabriel de Brandon, in the province of Quebec. Presented 29th April, 1908.—*Mr. Monk*... ..*Not printed.*
- 171g. Return to an order of the House of Commons, dated 9th March, 1908, for a copy of all correspondence, telegrams, petitions with signatures thereto, in possession of the Government, or any member or official thereof, respecting the removal of a post office from Angus McDonald's place in Pisquid, Prince Edward Island, to Russell Birt's, of the same place. Presented 29th April, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*
- 171h. Return to an order of the House of Commons, dated 16th March, 1908, for a copy of all correspondence, telegrams and petitions in the possession of the Government or any member or official thereof, respecting the dismissal of Alex. McLeod in 1905, as postmaster at Valleyfield East, Prince Edward Island, and the appointment of his successor. Presented 29th April, 1908.—*Mr. McLean (Queen's)*... ..*Not printed.*
- 171i. Return to an address of the House of Commons, dated 26th February, 1908, for a copy of all correspondence, telegrams, reports, memoranda, resolutions and any information in the possession of the Government, relating to changes in postal charges or regulations within the past two years, between the United States and Canada. Presented 5th May, 1908.—*Mr. Armstrong*... ..*Not printed.*
- 171j. Return to an order of the House of Commons, dated 13th January, 1908, for a copy of all correspondence, telegrams, reports and memoranda, in possession of the Government, or any member or official thereof, respecting the establishment of daily mails and improvement of the mail service in the county of Queen's, Prince Edward Island. Presented 26th May, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

- 172.** Return to an order of the House of Commons, dated 26th February, 1908, showing what sums of money were paid during the fiscal years 1905-6 and 1906-7 by any department of the Government to the Steel Concrete Company, Limited; for what purpose such payments were made; what orders for work or material to be done or supplied by that company are now being filled, and the aggregate amount payable for same. Presented 26th March, 1908.—*Mr. Boyce*.*Not printed.*
- 173.** Return to an order of the House of Commons, dated 9th March, 1908, showing how many renewals of placer claims were granted by the Gold Commissioner at Dawson, on or subsequent to the 1st of August, 1906, at \$10 each; why the fee of \$15, as required by 6 Edward VII., chapter 39, was not collected in these cases; and what shortages were afterwards collected. Presented 27th March, 1908.—*Mr. Lennox*.*Not printed.*
- 173a.** Return to an order of the House of Commons, dated 9th March, 1908, showing how many renewals of placer claims were granted by the Assistant Gold Commissioner at Whitehorse on or subsequent to 1st of August, at \$10 each; why the fee of \$15, as required by 6 Edward VII., chapter 39, was not collected in these cases; and what shortages have been collected. Presented 30th March, 1908.—*Mr. Lennox*.*Not printed.*
- 174.** Return to an order of the House of Commons, dated 8th January, 1908, showing: 1. What sums of money have been paid for advertising and printing, respectively, to the *Sun* and *Star* newspapers of St. John, N.B., the *Chronicle* of Halifax, the *Echo* and the *Glace Bay Gazette*, and the *St. John Globe*, during the following periods respectively: the fiscal years 1904-5, 1905-6, and from June 30, 1906, to date. 2. In what offices or job offices the printing is done for the *Sun*, *Star*, *Chronicle* and *Echo*. Presented 30th March, 1908.—*Mr. Foster*.*Not printed.*
- 174a.** Return to an order of the House of Commons, dated 13th June, 1908, showing all sums of money paid by the Government, or any department or official thereof, during the years 1902, 1903, 1904, 1905, 1906 and 1907, for advertising, printing, or for any other purpose, or on any other account whatever, to the *Sault Express*, a newspaper published at Sault Ste. Marie, Ontario, or to any person or persons, firm or company for or in respect of any work done by said newspaper for the Government, or any department or official thereof; also showing what amounts, if any, are disputed and unpaid, and showing for what purpose such moneys were paid, and accounts were incurred, respectively, and by what departments, or officials of the Government. Presented 30th March, 1908.—*Mr. Boyce*.*Not printed.*
- 174b.** Return to an order of the House of Commons, dated 22nd January, 1908, showing what amount has been paid by the Dominion Government for all purposes, from 1st January, 1904, to 1st January, 1908, to the following papers: *Alberta Star*, Cardston; *Lethbridge Herald*, Macleod Advance, Nanton News, *The Frank Paper*. Presented 30th March, 1908.—*Mr. Herron*.*Not printed.*
- 175.** Return to an order of the House of Commons, dated 15th January, 1908, showing the various services on which Mr. Shepley, K.C., has been engaged by the Government since 1896, and the amount that has been paid him for salary and expenses for each. Presented 30th March, 1908.—*Mr. Foster*.*Not printed.*
- 176.** Return to an address of the House of Commons, dated 16th March, 1908, for a copy of all orders in council, letters, telegrams, correspondence and papers of every description and nature relating to the appointment of the Hon. Arthur Drysdale as justice of the Supreme Court of Nova Scotia, and especially all such documents as relate to the date of his acceptance of said appointment or the date of his declaration of intention to accept the same. Presented 30th March, 1908.—*Mr. Taylor*.*Not printed.*
- 177.** Return to an order of the House of Commons, dated 23rd March, 1908, showing how much has been paid to C. Boone or the Boone Company, since 1896, and the amount paid for work in each year at each point where same was performed by said party, firm or company. Presented 30th March, 1908.—*Mr. Bennett*.*Not printed.*

CONTENTS OF VOLUME 19—Continued.

- 178.** Maps and plans in connection with the Montreal, Ottawa and Georgian Bay Canal. Presented 30th March, 1908, by Hon. W. Pugsley. *See 178b.*
- 178a.** Further maps and plans in connection with the Montreal, Ottawa and Georgian Bay Canal. Presented 13th May, 1908, by Hon. W. Pugsley. *See 178b.*
- 178b.** Return to an order of the House of Commons, dated 6th July, 1908. Report of the engineer on the Georgian Bay Ship Canal, together with estimates, plans, &c., illustrating the project in its main features. Presented 6th July, 1908.—*Hon. W. Pugsley.*
Printed for both distribution and sessional papers.
- 179.** Return to an order of the Senate, dated the 12th February, 1908, for a copy of: 1. The number of convicts under the age of twenty, and their respective nationalities. 2. The number of convicts from the age of twenty and upwards, and their nationalities, in each of the penitentiaries under Dominion control, for the years 1903, 1904, 1905, 1906 and 1907. Presented 31st March, 1908.—*Hon. Mr. Comcau.* *Not printed.*
- 180.** Return to an order of the Senate, dated the 18th February, 1908, showing with respect to the two routes of the Transcontinental Railway that were surveyed between Grand Falls and Chipman, in the province of New Brunswick, the estimated cost of each of the lines, that is to say: 1. The "Back Route," so-called. 2. The St John Valley route. With the following details: (a) Cubic yards of ordinary excavation and fills; (b) cubic yards of loose rock; (c) cubic yards of solid rock; (d) cubic yards of concrete; (e) miles of steel trestle and cost; (f) number and cost of bridges. And with respect to the "Back Routes," giving the last-mentioned details as regards the following subdivisions of that route: 1. Grand Falls and Tobique River. 2. Tobique River and Intercolonial Railway and Chipman. And is it the intention to adopt a pusher grade in the route selected? Presented 31st March, 1908.—*Hon. Mr. Thompson.* *Not printed.*
- 181.** Return to an order of the House of Commons, dated 6th February, 1907, for a copy of all letters, accounts, vouchers, cheques, correspondence and documents relating to any amount paid to Mr. R. T. McIlreith, barrister, of Halifax, for legal services, by the Government of Canada, during each of the fiscal years ending, respectively, 30th day of June, 1902, 1903, 1904, 1905 and 1906. Also relating to all amounts similarly paid to any legal agent or representative of the Government at Halifax during each of the fiscal years ending respectively, 30th June, 1891, 1892, 1893, 1894, 1895, 1896 and 1897. Presented 1st April, 1908.—*Mr. Crocket.* *Not printed.*
- 181a.** Supplementary return to No. 181. Presented 3rd April, 1908. *Not printed.*
- 182.** Copy of order in council relative to the appointment of the Honourable Walter Cassels, a commissioner to investigate and report upon certain statements contained in the Report of the Civil Service Commission, reflecting upon the integrity of the officials of the Department of Marine and Fisheries. Presented 2nd April, 1908, by Sir Wilfrid Laurier. *Not printed.*
- 182a.** Correspondence between Sir Wilfrid Laurier and the Honourable Mr. Justice Cassels on the subject of the appointment of the latter to investigate and report upon certain statements contained in the Report of the Civil Service Commission, reflecting on the integrity of the officials of the Department of Marine and Fisheries. Presented 7th April, 1908, by Sir Wilfrid Laurier. *Not printed.*
- 182b.** Correspondence between the Honourable Mr. Aylesworth and the Honourable Mr. Justice Cassels on the subject of the appointment of the latter to investigate and report upon certain statements contained in the Report of the Civil Service Commission, reflecting on the integrity of the officials of the Department of Marine and Fisheries. Presented 19th April, 1908, by Sir Wilfrid Laurier. *Not printed.*
- 182c.** Letter of instructions from the Minister of Justice to George H. Watson, Esq., K.C., respecting the appointment of the latter as counsel to act with Honourable Mr. Justice Cassels in the investigation upon certain statements contained in the Report of the

CONTENTS OF VOLUME 19—*Continued.*

Civil Service Commission, reflecting on the integrity of the officials of the Department of Marine and Fisheries. Presented 1st May, 1908, by Hon. A. B. Aylesworth.

Not printed.

- 182*d*. Return to an order of the House of Commons, dated 15th January, 1908, showing all commissions of inquiry appointed between 1896 and 1908, the dates of appointment thereof, the names of the commissioners appointed and the secretary and counsel, or others appointed to assist them, the purpose or object of each such commission, the date of report of each such commission, what legislation, if any, has been enacted in consequence of such commissions and reports, the cost of each such commission, including salaries, travelling expenses, witness fees, fees of counsel, and other assistants, and for printing, distinguishing each separately. Presented 5th May, 1908.—*Mr. Porter.*

Not printed.

183. Return to an order of the House of Commons, dated 18th December, 1907, showing the various Marconi stations established by the Government, their location, the cost of construction and maintenance of each, the messages sent by each, the rate of tolls and the receipts, and all contracts, reports, papers and correspondence, in connection therewith. Presented 3rd April, 1908.—*Mr. Foster.**Not printed*

- 183*a*. Supplementary Return to No. 183. Presented 11th May, 1908.*Not printed.*

184. Return to an order of the House of Commons, dated 17th February, 1908, showing what quality or quantity of goods or supplies have been furnished by the Office Specialty Company to the Dominion of Canada in every department of the service since 1896, and the total amount for each year. Presented 3rd April, 1908.—*Mr. Bennett.**Not printed.*

185. Return to an address of the House of Commons, dated 19th February, 1908, for a copy of a memorial addressed to His Excellency the Governor General, respecting a reference to the Privy Council in regard to the constitutionality of the Saskatchewan Act passed by the Legislative Assembly of the province of Saskatchewan on the 23rd May, 1906; together with a copy of all correspondence, telegrams or other communications, relating thereto, between the Dominion Government or any member thereof, and the Government of Saskatchewan or any member thereof. Presented 31st March, 1908.—*Mr. Lake.**Printed for sessional papers.*

186. Return to an order of the House of Commons, dated 29th January, 1908, for a copy of all reports, plans, specifications, tenders, correspondence, telegrams, and all other papers, documents, and other information in connection with the construction of the Hillsboro' Bridge and approaches, including land purchases necessary therefor. Presented 6th April, 1908.—*Mr. Lefurgey.**Not printed.*

187. Return to an order of the House of Commons, dated 10th February, 1908, showing what action, if any, has been taken by this Government since 19th March, 1903, which would have for its object the removal of the cattle embargo upon Canadian cattle entering Great Britain. 2. For a copy of a resolution said to have been passed some years ago by the committee on agriculture, which requested that the Minister of Agriculture of the Dominion should invite the ministers of the different provinces in the Dominion to form themselves into a committee, whose object was to lay before the Government of Great Britain the importance of removing the cattle embargo. 3. Also showing what efforts, if any, have been made by the Minister of Agriculture to comply with the wishes of the above-named committee so expressed; together with a copy of the report, if any, of the same to the House, and what efforts have been so made; with what reason, if any, the Government assigns for not taking action in the matter. Presented 6th April, 1908.—*Mr. Armstrong.**Not printed.*

188. Census and Statistics, Bulletin V., Agricultural Census of Ontario, Quebec and the Maritime Provinces, 1907. Presented 6th April, 1908, by Hon. S. A. Fisher.*Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

189. Return to an address of the House of Commons, dated 30th March, 1908, for a copy of all memorials, documents, telegrams, and correspondence between the government of Prince Edward Island and the Government of Canada since 30th June, 1904, with respect to the non-fulfilment of the terms of union and for claims for damages in respect thereof. Presented 7th April, 1908.—*Mr. McLean (Queen's)*... ..*Not printed.*
190. Return to an order of the House of Commons, dated 17th February, 1908, for a copy of all correspondence, telegrams, reports, memoranda, resolutions, and any other information in possession of the Government or any member or official thereof, respecting the construction of branch railway lines in Prince Edward Island. Presented 13th April, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*
191. Return to an address of the House of Commons, dated 30th March, 1908, for a copy of all orders in council, reports, documents, correspondence and papers, from the 1st day of January, 1907, to the present time, relating to the passage of United States war ships or training ships through the St. Lawrence canals and Great Lakes, including a statement showing the number of United States war ships or training ships which have passed through the St. Lawrence canals during that period, and a statement of all such war ships or training ships now on the Great Lakes, and particulars of the tonnage, horse-power, armament and crew of such war ship or training ship, and of the naval reserves or other naval forces of the United States Government, or of any State Government upon the Great Lakes; also all correspondence respecting the proposed passage of the gunboat *Nashville* through the St. Lawrence canals and river on her way to the Great Lakes next summer. Presented 7th April, 1908.—*Mr. Taylor.*
Not printed.
192. Return to an address of the House of Commons, dated 29th January, 1908, for copies of all papers, representations, memorials and correspondence had with the Minister of Finance or any member of the Government in reference to the proposed action of the Government through or in conjunction with the banks, to facilitate in a financial way the movements of the grain from the western provinces of Canada. Presented 7th April, 1908.—*Mr. Foster*... ..*Not printed.*
193. Return to an order of the House of Commons, dated 11th December, 1907, showing: 1. How many drill halls have been constructed or are under construction by the Government since 1896. 2. In what localities these buildings have been constructed, and the cost of construction in each case. 3. What military organizations exist in the respective localities in which these drill halls have been erected, and the numerical strength of each such military organization. Presented 7th April, 1908.—*Mr. Worthington.*
Not printed.
194. Return to an address of the House of Commons, dated March, 1908, for a copy of all orders in council and regulations made by the Governor in Council, or prescribed by the Minister of Customs under the provisions of chapter eleven (11) of the Acts of 1907, (6 and 7 Edward VII.), relating to materials to be used in Canada for the construction of bridges or tunnels crossing the boundary between the United States and Canada, and all similar regulations or legislative or administrative provisions of the United States Customs Laws relating to such materials. Presented 8th April, 1908.—*Mr. Clements*... ..*Not printed.*
195. Return to an order of the House of Commons, dated 15th January, 1908, for a complete list of the publications in Canada enjoying the newspaper rate. Presented 8th April, 1908.—*Mr. Cockshutt*... ..*Not printed.*
196. Partial Return to an order of the Senate, dated the 17th March, 1908, for a copy of the service-roll of the Garrison Artillery Companies of Ottawa and Morrisburg, giving names of the militiamen who were on active service, and who were in barracks at Fort Wellington, Prescott, during the months of November and December, 1865, and during the months of January, February, March, April, May and June, 1866; and also a

CONTENTS OF VOLUME 19—*Continued.*

statement showing what was the daily pay paid to the soldiers of these two corps and that which the militiamen belonging to Company No. 2 of the Ottawa Field Battery received at the same time, or that which was received by other corps of the Military District of Ottawa, which were also called out for active service. Presented 8th April, 1908.—*Hon. Mr. Landry*. *Not printed.*

197. Return to an address of the House of Commons, dated 16th March, 1908, for a copy of all orders in council, reports, memoranda, agreements, contracts and other documents and papers of every kind, nature and description, from the 1st of January, 1900, up to the present time, relating to or touching the Dolkesse or Dokis Indian reserve, or touching the surrender thereof of the timber thereon, and especially all such documents as aforesaid as relate to any proposals or arrangements for the surrender of any rights by the Indians in the said reserve or in the timber thereon, or to the sale or disposal of the said timber or any part thereof. Presented 9th April, 1908.—*Mr. Borden (Carleton)*. *Not printed.*
- 197*a.* Supplementary return to No. 197. Presented 2nd July, 1908. *Not printed.*
- 197*b.* Return to an order of the House of Commons, dated 23rd March, 1908, for a copy of all opinions of the Minister of Justice, or Deputy Minister of Justice, or any official of the Department of Justice, to the Minister of the Interior or any official of the Department of the Interior, with respect to the Metlakatla and Songhees Indian reserves, or either of the said reserves, since the 1st day of January, 1906. Presented 22nd April, 1908.—*Mr. Borden (Carleton)*. *Not printed.*
- 197*c.* Return to an order of the House of Commons, dated 6th April, 1908, for a copy of all petitions, memorials, documents, correspondence and papers touching any matters, transactions or negotiations between the Department of Indian Affairs and the council of the Six Nations reserve, or the chief or chiefs of the said council or the Indian Rights Association or Warriors' Association, from the 1st day of January, 1906, to the present time. Presented 18th May, 1908.—*Mr. Lake*. *Not printed.*
198. Return to an order of the House of Commons, dated 11th March, 1908, for a copy of contract and all correspondence in connection with purchase of cement from E. A. Wallberg, by the Department of Marine and Fisheries, to heighten Heath Point. Presented 13th April, 1908.—*Mr. Staples*. *Not printed.*
199. Return to an order of the House of Commons, dated 19th February, 1908, showing: 1. What amount the firm of H. N. Bate & Co. has received from each department of the Government since the year 1896 for supplies, giving the amount paid each year separately. 2. What amount the firm of W. C. Edwards & Co. has received from each department of the Government since the year 1896 for supplies, giving the amount paid each year separately. Presented 13th April, 1908.—*Mr. Taylor*. *Not printed.*
200. Return to an order of the House of Commons, dated 11th March, 1908, for a copy of all petitions, letters and applications, by or on behalf of "La Société Canadienne d'immigration et de placement," for assistance from the Government, and the answer by the Government or its officials to the same. Presented 13th April, 1908.—*Mr. Monk*. *Not printed.*
201. Return to an order of the House of Commons, dated 30th March, 1908, for a copy, as it appeared printed in the *Yukon World and Official Gazette* for nine months of the financial year 1906-7, of a synopsis of mining regulations referred to in the Auditor General's Report, 1906-7, at page L-37, and also setting forth the number of times the said advertisement appeared in the newspapers referred to in the time stated. Presented 13th April, 1908.—*Mr. Lennox*. *Not printed.*
202. Return to an order of the House of Commons, dated 26th February, 1908, for a copy of all correspondence, leases or other papers in connection with the leasing or proposed leasing of Kananaski Falls, on the Bow river. A copy of all correspondence and other

CONTENTS OF VOLUME 19—*Continued.*

papers in connection with the selling or otherwise disposing of 1,000 acres or any lands to the Calgary Power and Transmission Company (Limited). A statement showing an estimate of about the number of acres and territory owned by the Stony Indian Reserve, held in trust for the Indians, the said statement showing the quantity on each side of Bow river. Presented 13th April, 1908.—*Mr. Reid (Grenville)*.. . . .*Not printed.*

- 203.** Return to an address of the House of Commons, dated 29th January, 1908, for a copy of all correspondence, telegrams, memoranda and reports, between the Government and its officers and solicitors and the provincial or territorial governments, in regard to the cases taken to test the liability for taxation of the Canadian Pacific Railway Company in the cases Rural Municipality of North Cypress vs. Canadian Pacific Railway; Rural Municipality of Argyle vs. Canadian Pacific Railway; Springdale School District vs. Canadian Pacific Railway; together with copies of all judgments of the courts before whom the cases were tried, and of the refusal of the Judicial Committee of the Privy Council of the application for leave to appeal to that court. Presented 21st April, 1908.—*Mr. Lake*.. . . .*Not printed.*
- 204.** Copy of a Report of the Privy Council approved by His Excellency the Administrator on the 21st April, 1908, on a memorandum dated 20th April, 1908, from the Minister of Public Works, recommending that the order in council of the 30th March, 1908, providing for the continuation of certain contracts therein mentioned for dredging at various places in the provinces of Ontario and Nova Scotia be cancelled. Presented 23rd April, 1908, by Hon. W. Pugsley.. . . .*Not printed.*
- 205.** Return to an order of the House of Commons, dated 27th April, 1908, showing claims for damages to property, or personal injury or loss or damage on the Intercolonial Railway, which have been settled since 1st January, 1908; nature of the claims so settled; amount of damage claimed in each case; the settlements arrived at, and the names of the persons so settled with. Presented 27th April, 1908.—*Hon. G. P. Graham.*
Not printed.
- 205a.** Return to an order of the House of Commons, dated 6th April, 1908, for a copy of the Report of the Deputy Minister of Railways and Canals, and the Deputy Minister of Marine and Fisheries in reference to their meeting with delegates of the Boards of Trade of Prince Edward Island at Charlottetown in June last, to take into consideration the removal of the heavy freight and passenger rates on the Prince Edward Island Railway and the Intercolonial Railway, and on freight and passenger rates to and from Prince Edward Island; also all correspondence, telegrams, &c., in possession of the Government or any member or official relating thereto, and other questions discussed at said meeting. Presented 27th April, 1908.—*Mr. Martin (Queen's).**Not printed.*
- 205b.** Return to an order of the House of Commons, dated 30th March, 1908, for a copy of all letters, telegrams and other documents relating to an accident which happened at Mulgrave, Nova Scotia, on the 3rd of December last, whereby Captain James Forrestall lost his life; and also the evidence taken at the investigation subsequently held by officers of the department and the report made thereon. Presented 7th May, 1908.—*Mr. Sinclair*.. . . .*Not printed.*
- 205c.** Return to an order of the House of Commons, dated 6th April, 1908, showing the number of trains, both freight and passenger, on the Intercolonial Railway breaking down or detained from defects in engines during the months of October, November and December, 1907, and the causes of such defects. Presented 18th May, 1908.—*Mr. Reid (Grenville)*.. . . .*Not printed.*
- 205d.** Return to an order of the House of Commons, dated 6th April, 1908, showing the number of locomotives on the Intercolonial Railway out of service on the 31st December, 1907, and the date of purchase of each engine out of service, from whom purchased, type of engine, passenger or freight, haulage capacity, when in efficient state of repair, when put out of service, and when last used. Presented 18th May, 1908.—*Mr. Reid (Grenville)*.. . . .*Not printed.*

CONTENTS OF VOLUME 19—Continued.

- 205e.** Return to an order of the House of Commons, dated 6th April, 1908, showing the number of tons of new steel rails lying along the line of the Intercolonial Railway unused, date when purchased, if required, and when to be used. Presented 18th May, 1908.—*Mr. Reid (Grenville)*. *Not printed.*
- 205f.** Return to an order of the House of Commons, dated 6th April, 1908, showing the number of locomotives in service on the Intercolonial Railway on the several Sundays in the months of October, November and December, 1907, hauling freight trains. Presented 18th May, 1908.—*Mr. Reid (Grenville)*. *Not printed.*
- 205g.** Return to an order of the Senate, dated the 12th May, 1908, for a copy of all the correspondence exchanged in 1906 and 1907, between Mr. L. C. A. Casgrain, of Nicolet, and Messrs. J. Butler, Deputy Minister of Railway and Canals, and T. C. Burpee, engineer, or any other persons in the Department of Railways and Canals, on the subject of the fences along the line of the Intercolonial Railway across the county of Nicolet and the neighbouring counties. Presented 21st May, 1908.—*Hon. Mr. Landry*. *Not printed.*
- 205h.** Return to an order of the House of Commons, dated 10th June, 1908, for copies of all accounts, vouchers, correspondence and other papers relating to a payment of \$5,399.68 to K. Falconer in connection with New Accounting System on Government Railways, as set out at Page W—192, Report Auditor General, 1906. Presented 10th June, 1908.—*Hon. G. P. Graham*. *Not printed.*
- 205i.** Return to an order of the House of Commons, dated 6th April, 1908, for a copy of all correspondence, telegrams, reports and recommendations in possession of the Government, or any member or official thereof, with respect to improved railway service on the Belfast and Murray Harbour Branch Railway. Presented 10th June, 1908.—*Mr. Martin (Queen's)*. *Not printed.*
- 206.** Return to an order of the House of Commons, dated 18th March, 1908, for a copy of all papers necessary to bring the information contained in Sessional Paper No. 90, 1907, up to date. (Robins Irrigation Company.) Presented 28th April, 1908.—*Mr. Ames*.
Not printed.
- 207.** Certified copies of Reports of the Committee of the Privy Council, dated 30th March, 1908, and 16th April, 1908, approved by His Excellency the Administrator, and of the 28th April, 1908, approved by His Excellency the Governor General, on certain estimates of expenses in connection with the celebration of the founding of Quebec by Samuel de Champlain, submitted by the National Battlefields Commission for the sanction and approval of the Governor General in Council. Presented 30th April, 1908, by Sir Wilfrid Laurier. *Printed for sessional papers.*
- 208.** Return to an order of the House of Commons, dated 6th April, 1908, for a copy of all correspondence, reports, telegrams, resolutions, petitions, &c., in possession of the Government or any member or official thereof, respecting the demand of the Charlottetown Board of Trade or any person in Prince Edward Island, for federal legislation to give sailing vessels and steamers equal rights in their proper loading turns at the coal ports in Nova Scotia and Cape Breton. Presented 5th May, 1908.—*Mr. Martin (Queen's)*.
Not printed.
- 209.** Return to an address of the Senate, dated 10th April, 1908, showing: 1. The number of automatic low pressure acetylene gas buoys which have been purchased by the Government during the years 1904-5-6-7 from the International Marine Signal Company, of Ottawa, giving each year separate, and the prices paid for the same. 2. Whether tenders were called for their supply; if so how many tenders were received, from whom, and the prices at which they were offered. 3. How many other gas buoys, beacons, whistling buoys and light appliances were purchased from the same company during the same period of time, the prices paid for the same; whether any tenders were called for; if so, the names of the tenderers and the prices asked. 4. The quantity of the carbide purchased by the Government during the years 1903-4-5-6-7, the price paid, from

CONTENTS OF VOLUME 19—*Continued.*

- whom purchased and whether by tender or otherwise. Presented 6th May, 1908.—*Hon. Sir Mackenzie Bowell*. *Not printed.*
210. Return to an address of the Senate, dated 30th January, 1908, showing: 1. Has Mr. Michel Siméon Delisle, of the parish of Portneuf, in the county of Portneuf, merchant, and, since 1900, member of the House of Commons, at any time after the general elections of 1896, received any sum of money whatsoever coming from the federal treasury. 2. If so, when, how much, and for what object at each time. Presented 6th May, 1908.—*Hon. Mr. Landry*. *Not printed.*
211. Return to an order of the House of Commons, dated 11th May, 1908, for a copy of the report made by Mr. Victor Gaudet as a result of the investigation held by him into charges preferred against E. Roy, foreman of works, under the Department of Marine and Fisheries; and of the evidence in connection therewith. Presented 11th May, 1908.—*Hon. L. P. Brodeur*. *Not printed.*
212. Return to an order of the House of Commons, dated 9th March, 1908, for a copy of all correspondence, telegrams, reports, and all other information, not already brought down, in possession of the Government or any member or official thereof, in reference to winter communication, and the construction of a tunnel between Prince Edward Island and the mainland of Canada. Presented 2nd July, 1908.—*Mr. Martin (Queen's)*.
Not printed.
213. Return to an order of the House of Commons, dated 3rd February, 1908, for a copy of all tenders, contracts, correspondence, plans, specifications, certificates, schedules, and all other papers and documents, including settlement, agreements, claims or adjustments thereof, relating to the contract of Messieurs Murray & Cleveland to do the work at the eastern gap at Toronto Harbour, which work was completed in or about the year 1896. Presented 14th May, 1908.—*Mr. Macdonell*. *Not printed.*
214. Return to an order of the House of Commons, dated 6th April, 1908, for a copy of all letters, telegrams, memoranda and correspondence of every kind between the Minister of Marine and Fisheries, or any officer of his department, and any person or persons, respecting the purchase of supplies for the Department of Marine and Fisheries at Quebec, St. John, New Brunswick and Halifax, during the years 1892, 1893, 1894, 1895 and 1896. Presented 14th May, 1908.—*Mr. Johnston*. *Not printed.*
215. Copy of a treaty between Great Britain and the United States concerning the fisheries in waters contiguous to the Dominion of Canada and the United States, signed at Washington on April 11, 1908. Presented 19th May, 1908, by Sir Wilfrid Laurier.
Printed for both distribution and sessional papers
- 215a. Correspondence, orders in council and despatches in connection with the negotiation of a treaty between Great Britain and the United States concerning the fisheries in waters contiguous to the Dominion of Canada and the United States. Presented 4th June, 1908, by Sir Wilfrid Laurier. *Printed for both distribution and sessional papers.*
216. Return to an order of the House of Commons, dated 29th January, 1908, showing the total expenditure by the Department of Public Works in Prince Edward Island over the following periods: 1873 to 1878; 1878 to 1896; 1896 to 1907; and the total expenditure by the Public Works Department in Prince county over periods 1873 to 1878; 1878 to 1882; 1882 to 1887; 1887 to 1891; 1891 to 1896; 1896 to 1900; 1900 to 1907, respectively. And the expenditures by the Public Works Department in the counties of Queen's and King's for the years and the periods of years above-mentioned. Also the total expenditures in said province by the Post Office Department, the Department of Railways and Canals, and the Department of Militia and Defence. And further, the total expenditures by the Department of Marine and Fisheries, including the development, propagation and preservation of the fisheries, and in the maintenance of winter communication across the Northumberland Straits, for the years and periods of years above referred to. Presented 26th May, 1908.—*Mr. Lefurgey*. *Not printed.*

 CONTENTS OF VOLUME 19—*Continued.*

- 217.** Return to an order of the House of Commons, dated 11th December, 1907, for a copy of all correspondence, contracts and appointments of overseers in respect to Port Burwell Harbour, in the county of Elgin, Ontario, since 1st January, 1907; also a return showing pay-sheets, amount of new material used, from whom purchased, of all day or contract work on the said harbour, giving names of overseers and by whom appointed for the same. Presented 26th May, 1908.—*Mr. Marshall*... ..*Not printed.*
- 218.** Return to an order of the House of Commons, dated 6th May, 1908, showing the names of all persons who furnished supplies to the steamer *Petrel* between the 31st March, 1907, and 30th April, 1908, the amount paid to each such person, and the date of each payment. Presented 4th June, 1908.—*Mr. Chisholm (Huron)*... ..*Not printed.*
- 219.** Return to an order of the House of Commons, dated 19th February, 1908, (a) showing the revenue contributed by the province of British Columbia for each and every year from 1872-3 to 1905, inclusive, under the following heads: 1. Customs. 2. Chinese Immigration. 3. Inland Revenue, Excise, Weights and Measures, Gas Inspection, Electric Light Inspection, Methylated Spirits, Sundries. 4. Post Offices. 5. Public Works, Telegraphs, Esquimalt Graving Dock, Casual. 6. Experimental Farm. 7. Penitentiary. 8. Marine and Fisheries, Sick Mariners' Fund, Steamboat Inspection, examination of Masters and Mates, Casual and Harbours, Fisheries. 9. Superannuation. 10. Dominion Lands and Timber. 11. Vancouver Assay Office. 12. Miscellaneous. 13. Public Debt. 14. Any other source. And (b) showing expenditure by the Dominion of Canada on account of the province of British Columbia, for each and every year from 1872-3 to 1905, inclusive, under the following heads: 1. Public Debt. 2. Charges of Management. 3. Lieutenant Governor. 4. Administration of Justice, Judges, &c. 5. Penitentiary. 6. Experimental Farm. 7. Quarantine. 8. Immigration. 9. Pensions, &c. 10. Militia. 11. Public Works, Buildings, Harbours and Rivers, Dredging. 12. Telegraphs, Agency. 13. Mail subsidy. 14. Marine and Fisheries, Dominion Steamers, Lighthouses, Meteorological Marine Hospital, Steamboat Inspection, Miscellaneous, Fisheries, Fisheries Inspection, Hatcheries. 15. Indians. 16. Subsidies. 17. Dominion Lands. 18. Customs. 19. Inland Revenue, Excise, Weights and Measures, Gas and Electric Light. 20. Esquimalt Dry Dock. 21. Post Office. 22. Chinese Immigration. 23. Defences, Esquimalt. 24. Chinese Immigration Inquiry. 25. Bounty on Minerals. 26. Miscellaneous. 27. Vancouver Assay Office. 28. Railway Subsidies. 29. Any other source. Presented 10th July, 1908.—*Mr. Ross (Yale-Cariboo)*... ..*Printed for distribution.*
- 220.** Return to an order of the House of Commons, dated 3rd February, 1908, showing during the last ten years how much money has been expended by years by this Government for printing and lithographing done outside of Canada; and for what reason such work was done out of Canada. Presented 4th June, 1908.—*Mr. Macdonell*... ..*Not printed.*
- 221.** Return to an order of the House of Commons, dated 5th June, 1908, for a copy of the evidence taken in the *Montcalm-Milwaukee* collision case, and a copy of the decision of the wreck commissioner and of the assessors on the collision. Presented 5th June, 1908.—*Hon. L. P. Brodeur*... ..*Not printed.*
- 222.** Return to an order of the House of Commons, dated 13th January, 1908, for the production of the following: 1. A copy of the appointment of Doctor Edmond Savard, of Chicoutimi, as paymaster for the county of Chicoutimi. 2. A copy of the instructions given to him as such regarding the validity of the receipts. 3. A copy of all correspondence that took place between Doctor Edmond Savard and the Department of Public Works of Canada in regard to the St. Fulgence pier, in the county of Chicoutimi. 4. A copy of all correspondence that took place between the Auditor General and the Department of Public Works regarding the said Doctor Edmond Savard, paymaster, concerning the St. Fulgence pier. 5. A copy of all the pay lists in connection with the said St. Fulgence pier during the period of time that the said Doctor Savard

CONTENTS OF VOLUME 19—*Continued.*

- was paymaster. 6. A copy of all the pay lists for works done to the wharfs of Chicoutimi and St. Alexis during the time that the said Doctor Savard was paymaster. Presented 9th June, 1908.—*Mr. Bergeron**Not printed.*
- 223.** Return to an order of the House of Commons, dated 11th March, 1908, showing: 1. All lands or interests in lands granted by the Government to the Temperance Colonization Society, together with the dates of such grants, description of lands granted, consideration paid, or terms upon which such lands were granted, and all other particulars of sale. 2. Showing the terms of settlement or otherwise upon which such lands were granted, or held by the Society, and the conditions or regulations in force from time to time regarding such grants, and the holding thereof respectively. 3. Showing wherein or in what respect and with respect to what lands, the said Society lived up to, and complied with such conditions and regulations, and wherein the Society failed to comply therewith. 4. Showing what lands, if any, have been reclaimed by the Government from the Society for such non-compliance with such terms and conditions, or for any other cause or reason. 5. Showing what lands the said Society still hold, as far as known. 6. Showing whether the said Society is still in existence, and if so, who compose the same as far as known. 7. Also for a copy of all correspondence, reports, memoranda, orders in council, or other documents in possession of the Government, relating to the said Society or the lands granted thereto. Presented 10th June, 1908.—*Mr. Macdonell**Not printed.*
- 224.** Return to an order of the House of Commons, dated 13th January, 1908, showing the number of men and the quantity of supplies, material and mails transported on Government account over the Qu'Appelle, Long Lake and Saskatchewan Railway, the Calgary and Edmonton Railway, the Lake Manitoba Railway and Canal Company, and the Winnipeg Great Northern Railway, with the cost of same at current transport rates, since the beginning of the contract arrangements made with each, up to date. Presented 17th June, 1908.—*Mr. Foster**Not printed.*
- 225.** Supplementary Return to an order of the House of Commons, dated 17th December, 1906, for: 1. A copy of all leases and agreements between the Government, represented by the Department of Marine and Fisheries, and (a) the Athabasca Fish Company (J. K. McKenzie, Selkirk, Manitoba), or their assigns, Messrs. Butterfield & Dee; (b) A. McNee, Windsor, Ontario; (c) the British American Fish Corporation, of Montreal and Selkirk (F. H. Markey). 2. A copy of all reports, correspondence or documents, relating to or touching upon the application for securing of, transfer of, or enjoyment of any privileges under said leases. 3. A statement of all rentals, bonuses, or payments to the Government in respect of such leases to date. 4. All information in the possession of or procurable by the Government with reference to (a) the number of tugs, boats and men employed; (b) the quantity and value of nets used; (c) the number and value of fish taken; (d) the quantity of fish exported under each of said leases during the last period of twelve months, for which such figures are available. Presented 26th June, 1908.—*Mr. Ames**Not printed.*
- 226.** Return to an order of the House of Commons, dated 23rd March, 1908, for a copy of all contracts, papers and other documents between the Government or the Department of Militia and Defence, or any member thereof, or any one acting for or on its behalf, and the Sutherland Rifle Sight Company, or any one acting for or on its behalf, relating to the purchase of rifle sights or any other materials. Presented 26th June, 1908.—*Mr. Worthington**Not printed.*
- 227.** Return to an order of the Senate, dated 18th June, 1908, showing the tonnage entered at St. John, N.B., and Halifax, N.S., for the years 1905, 1906 and 1907. Also the value of imports for the same years at St. John, N.B., and Halifax, N.S., and also the value of exports for same year from St. John, N.B., and Halifax, N.S. Presented 7th July, 1908.—*Hon. Mr. Domville**Not printed.*

CONTENTS OF VOLUME 19—*Continued.*

- 228.** Return to an order of the House of Commons, dated 13th July, 1908, for a copy of a memorandum by Major General P. H. N. Lake, C.B., C.M.G., Inspector General, upon that portion of the Report of the Civil Service Commissioners, 1908, which deals with the Military Administration of the Militia. Presented 13th July, 1908.—*Sir Frederick Borden*... ..*Printed for distribution.*
- 229.** Return to an order of the House of Commons, dated 13th January, 1908, showing the population of each town, village or other place in Canada, in which any public building has been erected at the expense of Canada since 1st January, 1897, or for a public building in which any public money has been voted, expended or appropriated since that date, together with a statement of the amount voted, expended or appropriated in each case, the total cost of each such building, the estimated total cost of any such building not yet completed, the purpose of each such building in each instance, the cost of the annual maintenance and upkeep thereof; and so that the said statement shall show the information aforesaid by division of the said towns, villages or other places in the following classes: Those having a population not exceeding 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000; also giving the names of all other towns and villages in Canada of each of the said classes in which no such public buildings have been erected up to the present time. Presented 13th July, 1908.—*Mr. Borden (Carleton)*.
Not printed.
- 230.** Return to an address of the Senate, dated 2nd July, 1908, showing: 1. The names of all senators and members of the House of Commons who have been appointed to office of emolument during the years 1896-7-8-9, 1900-1-2-3-4-5-6-7 and 8. 2. The name of the office to which each senator and member was appointed. 3. The salary attached to each office. Presented 14th July, 1908.—*Hon. Mr. Landry*... ..*Not printed.*
- 231.** Return to an order of the House of Commons, dated 10th February, 1908, for a copy of all petitions, letters, correspondence, reports, documents, papers, and other information in relation to the granting of a license in the year 1905 to E. H. McLennan and G. A. Redmond, both of River John, Nova Scotia, for the erection of a factory and to fish lobsters, with the date of such license. Presented 16th July, 1908.—*Mr. McLean (Queen's)*... ..*Not printed.*
- 231a.** Return to an address of the House of Commons, dated 23rd March, 1908, for a copy of all correspondence, telegrams, petitions, orders in council, applications for licenses, in possession of the Government or any member or official thereof, respecting the granting of lobster fishing and packing licenses in Prince Edward Island for the years 1904, 1905, 1906 and 1907-8, and the report of the inspectors thereon. Presented 18th July, 1908.—*Mr. Martin (Queen's)*... ..*Not printed.*
- 232.** Return to an order of the House of Commons, dated 16th December, 1907, showing: The amounts paid by the various departments of the Government since July, 1896, for sites for the following purposes, respectively: (a) court houses; (b) Royal Northwest Mounted Police purposes; (c) jails or penitentiaries; (d) armouries; (e) post offices; (f) Dominion lands office; (g) land titles offices; (h) customs offices; (i) inland revenue; (j) weights and measures; (k) other Dominion Government purposes, in the following villages, towns or cities, respectively: Winnipeg, Brandon, Regina, Moosejaw, Medicine Hat, Lethbridge, Calgary, Macleod, Cardston, Pincher Creek, Red Deer, Lacombe, Wetaskiwin, Edmonton, Battleford, Prince Albert, Saskatoon, Yorkton and Dauphin. Presented 17th July, 1908.—*Mr. McCarthy (Calgary)*... ..*Not printed.*
- 233.** Return to an address of the House of Commons, dated 30th March, 1908, for a copy of specifications, tenders, contracts, orders in council, extension or renewal of contracts in connection with Quebec Harbour improvements in 1903, and subsequently; and of all letters, correspondence and memoranda in connection therewith; and also a statement of the sums of money paid on account of the work in and subsequent to 1903. Presented 17th July, 1908.—*Mr. Lennox*... ..*Not printed.*

CONTENTS OF VOLUME 19—*Concluded.*

- 234.** Copy of a telegram from the Canadian Manufacturers' Association relative to the woollen industries, and Sir Wilfrid Laurier's reply thereto. Presented 18th July, 1908, by Sir Wilfrid Laurier. *Not printed.*
- 234a.** Correspondence, &c., from the Canadian Manufacturers' Association relating to the woollen industries in Canada. Presented 20th July, 1908, by Sir Wilfrid Laurier. *Not printed.*
- 235.** Return to an order of the Senate, dated 6th May, 1908, calling for copies of all correspondence with the Department of Inland Revenue and officers, referring to analysis of fertilizers and for the decision of the department on questions raised during the years 1906, 1907 and 1908, to date. Presented 18th July, 1908.—*Hon. Mr. Domville.* *Not printed.*

SUPPLEMENT TO THE 40th ANNUAL REPORT MARINE AND FISHERIES

REPORT

ON

BRITISH AND CONTINENTAL PORTS,

WITH A VIEW TO

THE DEVELOPMENT OF THE PORT OF MONTREAL

AND

CANADIAN TRANSPORTATION

BY

GEORGE W. STEPHENS

President, Harbour Commissioners of Montreal

AND

FREDERICK W. COWIE, B.A.Sc., M. Inst., C.E.

Chief Engineer,

Engineer, River St. Lawrence Ship Channel



O T T A W A

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

1908

INDEX

A.

	PAGE.
ANTWERP.....	73
BRISTOL.....	52
CARDIFF.....	57
GLASGOW.....	36
HAMBURG.....	65
HAVRE.....	89
LIVERPOOL.....	21
LONDON.....	27
MANCHESTER.....	45
MARSEILLES.....	80
MONTREAL.....	93
NEWCASTLE-ON-TYNE.....	60

B.

PLANS, CURVES AND CROSS SECTIONS	97
GENERAL IMPRESSIONS.....	20
CONCLUSIONS.....	21

Hon. L. P. BRODEUR, K.C., M.P.,
Minister of Marine and Fisheries,
Dominion of Canada.

DEAR SIR,—In view of the rapid increase of Canadian trade, the future promise of still greater development, and the limited facilities now existing in the Port of Montreal to handle even present Canadian business, your Commissioners have deemed it advisable that immediate steps be taken to prepare a well-defined scheme of development for the Port of Montreal that would ensure retention of Canadian business through Canadian channels.

Having secured your concurrence in these views, the Commissioners resolved that a careful and comprehensive study of British and Continental ports be undertaken previous to the consideration of any development proposal in connection with Montreal harbour.

The report herewith submitted, therefore, gives, besides a study of ports generally, the results of a careful inspection of the following important British and Continental harbours, and some conclusions regarding the situation of Montreal and the River St. Lawrence:—

London,
Liverpool,
Glasgow,
Bristol,
Manchester,

Newcastle-on-Tyne,
Cardiff,
Hamburg,
Antwerp,
Havre,

Marseille.

The information given and the conclusions to be drawn may be of some value in the development of Canadian transportation, the Port of Montreal and the St. Lawrence route.

Yours faithfully,

G. W. STEPHENS.
F. W. COWIE.

ACKNOWLEDGMENT.

Before placing on record the information gathered during a three months' study of British and Continental ports, appreciation must be expressed to Hon. L. P. Brodeur, K.C., M.P., Minister of Marine and Fisheries, for his approval and kind introduction to his Lordship the High Commissioner for Canada.

To Right Hon. Lord Strathcona, High Commissioner for Canada in London, for his kind advice and extreme courtesy in securing introductions to high officials in each port.

For special kindness, hospitality and valuable information, to Sir Cecil Hertslet, H.B.M. Consul-General, Antwerp.

Sir William Ward, H.B.M. Consul-General, Hamburg.

Mr. M. C. Gurney, H.B.M. Consul-General, Marseille.

Mr. Harry L. Churchill, H.B.M. Consul-General, Havre.

John Barlow, Vice-Admiral, Resident Commander, Devonport Naval Station.

Sir John Jackson, LL.D., F.R.S., J.P., Chief Constructor, Devonport Dockyards.

Sir W. G. Armstrong, Whitworth & Co., Limited, Newcastle.

Sir Nathaniel Dunlop, Glasgow.

Sir William Thomas Lewis, Cardiff.

James Hurman, Superintendent, Cardiff Dock Company.

Lord Mayor, Ed. James, of Bristol.

Sidney Humphries, President, Chamber of Commerce, Bristol.

Colonel Carey Batten, the High Sheriff of Bristol.

Major G. A. Gibbs, M.P., Bristol.

W. A. MacKinnon, Canadian Trade Commissioner, Bristol.

F. B. Girdlestone, Docks Manager, Bristol.

W. W. Squire, chief engineer, Bristol Docks.

R. Philipson, secretary, Thames Conservancy, London.

Trinity House, London.

J. G. Broodbank, secretary, London and India Docks Company.

T. H. Cullis, secretary, Surrey Commercial Docks Company.

Jas. Gaskell, chief engineer, Surrey Commercial Docks Company.

G. H. Monk, superintendent, Surrey Commercial Docks Company.

Maurice Fitzmaurice, chief engineer, County Council, London.

Clarence I. de Sola, Consul-General for Belgium, Montreal.

M. Hertogs, burgomaster, Antwerp.

Ald. J. Albrecht, Antwerp.

F. Kenart, assistant engineer, Antwerp.

A. Greiner, managing director, Cockerill Works, Seraing.

J. Kraft, chief engineer, Cockerill Works, Seraing.
Herr Rath, Kirchenpauer, Department Shipping and Commerce, Hamburg.
Harbour Inspector Fokkis, Department Shipping and Commerce, Hamburg.
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H. & A. Allan, Montreal.
Robt. Reford, Montreal.
James Thom, Montreal.
Battard Orazeliere, chief engineer, Marseille.
R. Terigi, port captain, Marseille.
M. Turcat, president, La Société pour la défense du Commerce, Marseille.
M. Ducrocq, chief engineer, Havre.
J. McDonald, Manson, secretary, Tyne Improvement Commission, Newcastle.
G. B. Hunter, (Swan, Hunter and Wigham Richardson, Limited), Newcastle.
W. C. Donaldson, Glasgow.
The Clyde Trustees, Glasgow.
T. R. Mackenzie, general manager and secretary, Glasgow.
W. M. Alston, chief engineer, Glasgow.
Walter Brown, managing director, Wm. Simons & Co., Limited, Glasgow.
Vickers, Sons and Martin, Limited, Barrow-in-Furness.
Stothert & Pitt, Limited, Bath.
The Mersey Dock and Harbour Board, Liverpool.
Robt. Gladstone, chairman, Liverpool.
Miles Kirk Burton, general manager and secretary, Liverpool.
A. G. Lyster, chief engineer, Liverpool.
Mr. Dow, Clerk of Works Committee, Liverpool.
Wm. Watson, chairman, Cunard Steamship Company, Liverpool.
J. H. Beazley, director, Cunard Steamship Company, Liverpool.
Manchester Ship Canal Company, Manchester.
F. A. Eyre, secretary, Manchester.
H. M. Gibson, chief traffic superintendent, Manchester.
W. Browning, dock traffic superintendent, Manchester.
R. Joyson, assistant traffic superintendent, Manchester.

FOREWORD.

The comparative study of modern port development in Europe is naturally an intensely interesting one. It presents, however, so many different problems and so much material for investigation that, from the beginning, its besetting and almost insurmountable difficulty has been to reduce to simple parts the mass of information coming from all sources. The method adopted has been to put each port into the same crucible and apply to it the same test, so that the information gained should be simultaneously accurate and comparative.

The fact that during the last twenty years the great world ports have been concentrating their attention on terminal development, that during the same period main lines of railway have been multiplied, tentacle feeders thereto have been pushed into every trade centre giving promise of increased traffic, waterways diverted, new canal systems constructed, all leading from innumerable trade centres to some inland or ocean terminal, makes the problem of increased terminal facilities, perhaps, the most complex as well as the most vital of modern transportation questions.

The object, therefore, of visiting the different sea ports in Europe and Great Britain has been:—

To personally inspect the different phases of port development and management.

To inquire into the special conditions bringing about special results in different cases.

To obtain accurate information with regard to the channel approaches to the different ports.

The method of keeping these channels clear and free of obstruction for navigation purposes.

To examine the different systems of port changes imposed, and the methods adopted for raising revenue and capital.

To study the causes which lead to the investment of such vast sums in the development of modern European ports.

To examine the organization and administrative methods in vogue.

To gather together such reliable information touching upon all these matters as might serve a useful purpose in the development of Canada's national ports.

Transportation, from a Canadian standpoint, would seem to be the most vital problem now requiring attention, for may it not be said that upon its development and efficiency depend the future prestige of Canadian commerce and the integrity of the nation. This fact was recognized by the statesmen who planned and carried to completion the Canadian canal system, linking, by way of the St. Lawrence River, the Great Lakes to the sea; by the few courageous men who developed and completed the Canadian Pacific Railway; and again by those associated with the construction of the Canadian Northern and Grand Trunk Pacific systems.

Within the next few years Canada will have three transcontinental railway lines from ocean to ocean within her own territory. The Canadian canal system has provided, from the Great Lakes to the head of ocean navigation at Montreal, a waterway unequalled on the North American continent, giving a constant canal and river depth of 14 feet. The competing water route from the Great Lakes to the sea, by way of the Erie Canal in the United States, is only 6 feet deep, and the American canal system is 345 miles long as against 72 miles for the Cana-

dian. This means that you can carry an unbroken cargo of 80,000 bushels by the Canadian canal, whereas the extreme cargo limit of the American system is 8,000 bushels. From Montreal to the sea, by way of the St. Lawrence ship channel, Canadian enterprise has established a channel with an available depth of 30 feet now actually in use by steamships of 12,000 tons. By 1910 the channel will be available to Montreal for steamships of 18,000 tons. This gives to Canada a seaport at Montreal, the head of ocean navigation, 1,000 miles from the sea, the junction point of three transcontinental railways, and a canal system with deep water access to Prescott, Kingston, Toronto, Hamilton, Port Dalhousie, Port Colborne, Amherstburg, Windsor, Sarnia, Port Huron, Goderich, Southampton, Wiarton, Owen Sound, Meaford, Collingwood, Midland, Depot Harbour, Victoria Harbour, Parry Sound, Sault Ste. Marie, Fort William, Port Arthur, Duluth, Superior, Chicago, Milwaukee, Bay City, Detroit, Toledo, Cleveland, Buffalo, Oswego, and Ogdensburg. There is no seaport on the North American continent with deep water communication to important trade centres such as this.

The advantage of possessing a canal system which makes possible a continuous waterway within Canadian territory from the Great Lakes to the sea, for vessels of larger tonnage than any other inland waterway in North America, has not yet been fully appreciated by Canadians, nor have the opportunities offered by it been fully availed of. This national highway of trade is the property of the Canadian people and should not be allowed to come under the control of any navigating corporation or railway, or combination of either, as has been the case in the United States where the railways have killed the efficiency of the Erie canal by blocking legislation for its enlargement, in England where the inland waterways have largely been bought up by the railroads and their usefulness confiscated, or in France where a like situation exists with reference to the Port of Marseille.

Hamburg, with a canal system of 8 feet in depth, distributes annually to inland points 8,000,000 tons of freight by the cheapest known means of transportation.

Antwerp, with a canal and river system of the same depth, carries waterborne cargoes to the boundaries of Austria at the rate of something like 6,000,000 tons per annum, and distributes annually by means of her own waterways 37,000,000 tons of merchandise.

Montreal has behind her a canal and river system 14 feet deep, tapping the trade of almost a whole continent. Equip in a proper manner her ocean and lake terminals and no force can divert from the cheapest and shortest trade route the business she ought to command.

At the present rate of increase Canada will, during the 20th century, contribute to the empire a population exceeding that now occupying the British Isles, and if she only cultivates one quarter of her available wheat areas she will produce annually 800,000,000 bushels of grain.

There are only two methods of handling this new business:—

1. By increasing terminal facilities on Canadian soil.
2. By allowing business to be taken care of through American ports.

It would, therefore, seem to be a national duty to equip Canadian sea terminals in keeping with the railway and commercial growth of the country, in order to preserve the national prestige of handling Canadian business through Canadian seaports. With a view of facilitating this important work, the following pages are respectfully submitted as the result of three months' careful study of development work in the great European ports.

A STUDY OF PORTS.

I.—INTRODUCTION.

In its usual interpretation the term "port" includes roadsteads, entrance channels, harbours, docks, as well as terminal accommodation and equipment for the exchange of products and merchandise between conveyance by water and that by land.

On the other hand, the term "harbour" may signify but a place of shelter for shipping without any particular development.

A "dock" is an interior basin and has been defined as an "artificial repository for shipping."

A port may be upon the open sea, inland at the head of deep water navigation, may be approachable from the interior by water and rail, may be a transit point for the interchange of through business, or may through its immediate markets require development for the purpose of handling large quantities of local freight. Demands may be made upon it to handle all kinds and descriptions of cargo, and at the same time take care of a large passenger business. Added to all these is the important development of local river traffic, both in passengers and in freight.

The problem of port development, therefore, necessitates as a preliminary step the study of actual local conditions; and upon the conclusions arrived at, after such study, the broad lines of its development may be firmly and courageously laid down.

II.—OCEAN BUSINESS.

(a) *Passengers and Mails*.—For this service costly ships, fast trains, first-class hotel accommodation at the terminals, direct route from business centre to centre, and harbours of sure and easy approach are required. Being at once the most costly and most remunerative part of ocean service, special care must be taken in the working out of its development so as to provide from beginning to end efficiency in all departments. Ports for this class of business are selected at points on the open sea, as near as possible to the centres of business; or in special cases, where nature has so planned it, the sea voyage may begin many hundreds of miles from the ocean, at at Montreal.

(b) *Freight*.—The chief consideration in the handling of freight cargoes is an economic port fitted with freight handling devices that will enable a given quantity of freight to be handled within the least possible time, large storage areas for the collection of this freight as near as possible to the ship's side, with direct railway or inland water communication to the centres of production and consumption.

(c) *Passengers, Mails, and Freight*.—The ideal port, therefore, is one that will attract by its comfort, regularity and safety a paying passenger business, combined with certain regular cargoes made possible by situation, efficient port management, and equipment.

In order to meet these requirements, good channel approaches are necessary, comfortable ships of large tonnage, and intermediate ports of call with rapid transfer appliances for mails. In the interest of a growing country it would appear that the best service would be that of a combined passenger, mail and freight, together with cheap bulk freight transportation for special staples.

The growth and popularity of this transoceanic business depends very largely upon the degree of intimate commercial and traffic arrangements possible between the railways of one country, the railways of another country, and the steamship service linking the two together.

In considering the cost of water transportation as compared with that of land, the following general rule has been given: that it will cost as much to carry 50 tons by vehicle at 500 tons by railway, or 5,000 tons by ocean steamship. It will be seen therefore, that a 20 knot ship (equal to nearly 23 miles an hour) is not very far behind the usual train service as regards passengers and much in advance of train service as regards freight; that ships will make as far inland towards the centre of business as the water approaches and port facilities will admit; that the country possessing a waterway penetrating from the ocean inland for many hundreds of miles to a well equipped ocean terminal possesses an initial advantage of rare value and importance.

Antwerp, Hamburg, and London are European examples of this type, and Montreal is the only port of similar character in North America.

III.—FEATURES OF SUCCESS.

The existence or success of a port to a large degree depends on the following:—

(a) *Early Development.*—Many ports owe their existence to the early development of their locality. Trade is hard to remove from existing channels, and when once removed is even harder to regain. Failure for a few years of public spirit, detrimental legislation, bad administration or war may result in loss of trade prestige and the consequent success of competing ports.

(b) *Ownership and Control of the entire Harbour Area.*—No complete development can take place without unity of purpose and concentration of authority. The value of complete ownership and the non-alienation of any territory or rights are inestimable. The existence of rights, franchises or privileges in the hands of individuals may hamper business and endanger or discourage further extension.

(c) *Situation.*—To be successful a port should first be on the line of a trade route, should be locally supported by a population behind it and the manufacturers in its neighbourhood. Sentiment plays a most important part in the choice and development of a port.

Safety of approach and non-delay being assured, it may be conceded that the most suitable position for the transfer of goods between water and land is the point farthest inland where ocean and inland traffic may be interchanged. The facility of approach by railway and inland waterways are also of the utmost importance, as well as suitable and convenient areas for terminals, warehouses and the adjuncts of shipping. When there can be found a point possessing all these features a rare and unusually endowed centre for port development and business has been secured.

Countries possessing high tariffs may develop a free port district where transfer, storage, subdivision, re-manufacture, preparation for local markets, delivery in quantities as required, warehousing, without Customs charges, may take place. This is a wonderful factor in the development of a port, as instanced in the port of Hamburg.

Ships may enter a free port, discharge or transfer their cargoes to smaller boats, without the interference of the Customs authorities. Ships' repairs of an extensive nature are done here, consuming home-produced material without Customs restriction of any kind. When delivery is made of the goods stored in a free port district to interior home points, duty is paid at the point of destination, the goods being shipped in bond. This gives the consignee the privilege of bulk storage and shipment in lots to suit his requirements, while he only pays the duty when delivery is made. Where cargo is reshipped to foreign ports out of the free port district no duty at all is paid, but the benefit of storage in large

SESSIONAL PAPER No. 21c

quantities, re-manufacture or assemblage has been enjoyed. In both cases business has been facilitated and encouraged and wages paid at home.

A special feature to be learned from the successful British and continental ports is the revival of public spirit that has made possible tremendous port development. One cannot visit the great sea towns of Britain and the Continent without being convinced that no great public development of a country's trade outlets can be hoped for without public spirit, determination and sacrifice on the part of the people, and energy and concentration of purpose on the part of the port authorities.

IV.—TYPES OF PORT BUSINESS.

Five distinct types of port business are specially prominent in the ports visited.

(a) *Ocean Ship to Coasting Ship*.—From different parts of the world cargoes arrive in large ships, are sorted and re-shipped in smaller coasting ships to foreign or local ports. Requirements for this trade are commercial centres, convenient points of delivery, minimum Customs charges and restrictive regulations, large storage and warehousing facilities, equipment for cheap handling. Liverpool, London and Hamburg are prominent examples of this kind of business.

The free port district of Hamburg possesses all the advantages of British free trade as goods can be stored, mixed, improved or re-manufactured, together with local raw materials, within these limits, and re-shipped to foreign ports without paying any duty, or to domestic ports in bond.

(b) *Ocean Ship to Railways direct and vice versa*.—This is now an almost universal practice in modern ports. The convenient interchange between the ship and the railway is a great factor toward success or otherwise. The requirements for this business are extensive quay accommodation, tracks to the ship and shed side, large track and terminal areas, control of terminal railways by the port authority.

(c) *Ocean Ship to Warehouse by Vehicle, and vice versa*.—Business of this type is most marked in Liverpool, Antwerp and Montreal. The necessary requirements for its development are convenient and good roads to warehouses, facilities for loading and unloading convenient to the ship, concentration of business and the proximity of large warehouse accommodation, with railway access to and from terminals and warehouses.

(d) *Ocean Ship to and from Warehouse by Lighters*.—Special examples of this type are London, Hamburg and Antwerp, where numerous warehouses are accessible from the water direct. Delivery by lighters of from 50 to 200 tons capacity is the cheapest mode of transfer.

(e) *Ocean Ship to and from Canal Barges*.—The best examples of this are Antwerp, Hamburg and Montreal, where inland canal systems meet the ocean traffic, with the advantage to Montreal in the depth of the Canadian canal system, which, as compared with either that of Hamburg or Antwerp, has double the capacity and reaches a vastly greater area. On the other hand, Antwerp and Hamburg have the advantage of dense population along the lines of their interior water communication. As transportation by barge is exceedingly cheap, it is one of the most valuable assets of a port.

These five types of business—

- | | |
|---|----------------------|
| (a) Ocean ship to coasting ship; | } and
vice versa. |
| (b) Ocean ship to railway direct; | |
| (c) Ocean ship to warehouse by vehicle; | |
| (d) Ocean ship to warehouse by lighter; | |
| (e) Ocean ship to canal barge; | |

are not all of them typical of any one port, but are distributed and may be seen in operation at

Liverpool.....	(a) (b) (c).
London.....	(a) (b) (d).
Antwerp.....	(b) (c) (e).
Hamburg.....	(a) (b) (d) (e).
Montreal.....	(b) (c) (e).

Montreal having splendid possibilities of developing (a) and (d): (a) by way of the 14 feet Canadian canal system to the head of the Great Lakes through which ships equal to European coasting and Baltic Sea ships can navigate, and (d) by her natural suitability for the establishment of a free port area completely approachable by water.

The development of a free port district within the harbour of Montreal is worth earnest consideration, as it would unquestionably make her the great *entrepot* and distributing centre for a large share of North American business. The advantages afforded by a modern and well-equipped manufacturing and bonded warehouse district for the re-manufacture of articles using partial home raw material and labour, and for the storage of through traffic, cannot be underestimated.

V.—PORT TYPES.

River Jetties or Pier Docks.—North American harbours are generally of this type. Harbours of this type in the United Kingdom are rare. Antwerp has extensive riverside quays, but at the same time is developing and constructing wet docks.

The only important example of a wet dock on the North American continent is at Quebec, Canada.

The tidal range in North America varies from a few feet at Galveston, Texas, to 30 feet at St. John, New Brunswick. In all North American ports the accommodation for ships is by means of piers or jetties built along the water front protected from the sea either naturally or by means of artificial breakwaters.

In most cases the piers are built out from the shallow foreshores, but most frequently jetties or riverside quays are constructed along and parallel to the water front, as at New Orleans, Montreal and the Great Lake harbours.

Wet Docks.—Basins artificially enclosed, where the water is maintained at a nearly constant level, and frequently by a combination with one another, forming large systems of safe convenient shelter for all classes of vessels, are called wet docks.

In some of the older ports, such as London, Liverpool and Bristol, the dock development gives a complete record of the size and tonnage of the ships of the periods, from the 200-ton barque of 1708 to the mammoth liner of 1908.

A wet dock, considered great in its time, was opened about two centuries ago at the site of the present Greenland Dock in London. It had a lock entrance 44 feet wide and 150 feet long and a depth at "good spring tides" of 17 feet.

Until the beginning of the 19th century there were only four or five of these docks in existence. From that time to the present, docks of this character have been the rule in Great Britain, and the new undertakings have barely kept pace with the shipping.

Tidal Basins.—These basins are of the same character as wet docks, except that the water rises and falls with the tide. Probably the most notable example of this character is Hamburg.

Of these three types, and the advantages of each, a marked difference of opinion prevails.

SESSIONAL PAPER No. 21c

When a port is situated on a non-tidal river, railway access to the water front convenient and possible, jetties and riverside quays are the least expensive.

Wet docks are designed to give a safe berth for ships, drift ice is avoided, and a supposed great security from fire exists. As the whole dock area is usually enclosed, immunity from pilferage is secured to vessels and cargoes. This system lends itself to warehouse development on a large scale.

The level of the water in the wet docks is usually maintained at or near high water spring tides, the only water admitted being that to replace the amount let out by the lockages. This is of very great advantage where the tidal water carries sediment, which in some river estuaries is as much as an eighth to a quarter of an inch of deposit per tide. If let into the slack water basin this would create an enormous amount of constant dredging. Currents through narrow entrances due to the storage water rushing in and out with the rise and fall of the tide are avoided.

The quay walls can as a rule be built in the dry, the bottom puddled to make it watertight, and everything completed before the water is let in. The height of the walls do not require to be as high, as it is not necessary to make depth for low tide.

In the River Thames, for example, riverside quays would appear to be an advantage. The water front, however, is owned privately. Warehouses are built to the boundary line, which is near high-water mark, and rights, either real or assumed, permit lighters using the edges of these warehouses as quays, where they ground at low tide. Furthermore, railway access would be practically impossible.

Where the River Thames widens out 22 miles below London Bridge to three-quarters of a mile in width, there is still no general system of riverside quays. Here the Tilbury Dock system has been developed where vessels can only enter or depart at or near high tide; the tides here, as well as the currents, being very similar to those at Quebec:—

Springs.....	17½ feet.
Neaps.....	14 “

At Antwerp, which occupies one side of the River Scheldt, as a port, riverside quays were the rule for many years. There are now miles of undeveloped water front, with cheap land, just opposite the present river quays. This land, however, happens to be outside the province of Antwerp, and in order to keep the business on their own side of the river the whole of the new harbour development of Antwerp has been definitely decided upon as a wet dock development.

Hamburg, 76 miles from the sea, on the River Elbe, is an example of a tidal basin development. The tide rises and falls at will throughout the whole harbour. There are no lock entrances, but sliding gates at one or two points in the system prevent the river from running through the different basins. The land is all level and soft, lending itself to this system, the city being intersected by canals from the large basins to the free harbour.

VI.—DRY DOCKS.

It may be said that no port of the fifth class in Great Britain or the Continent is without its dry or floating dock.

London.....	30	Havre.....	6
Liverpool.....	21	Marseille.....	6
Cardiff.....	13	Glasgow.....	5
Hamburg.....	12	Bristol.....	} 4
Newcastle.....	11	Avonmouth.....	
Antwerp.....	6	Manchester.....	2
Montreal.....	None.		

They have developed with the shipping, and it is not usual to enlarge existing docks to meet the increased size of ship. New ones are built, the small vessels using the older ones.

Docks are considered absolutely necessary adjuncts of a port.

The efficiency of dry or floating docks must be left to the decision of the particular port authorities and particular conditions prevailing in each port. Floating docks, however, have been very much favoured during the last few years.

Hamburg is the most complete modern Continental port, and she now has eleven floating docks within the harbour and only one dry dock.

Antwerp, on the other hand, has many dry docks and no floating docks.

The new extension of Plymouth or Devonport Naval Harbour has examples of several magnificent dry docks of all sizes, capable of taking in, with room to spare, the largest vessel afloat.

Floating docks are cheaper and can be constructed in a shorter time, but are not always adaptable to local conditions.

VII.—APPROACH CHANNELS.

Every port visited has its entrance or approach channel leading up to it from the sea. Great effort is made to develop sufficient depth in these channels for the new ships, and in most cases as much effort is required to maintain the depth afterwards.

The sketches on page 162 of the cross-sections of the various channels to the same scale, will illustrate the comparative width and advantages of the St. Lawrence route.

In many instances the future of a port depends on the possibility of obtaining the necessary depth and of economically maintaining it. Montreal has the magnificent St. Lawrence with its water free from sediment, where the existing channel is 30 feet, and can be made any required depth at a very reasonable expenditure, and when so made does not require maintenance.

In most cases the construction and maintenance of river channels are carried on by the state. To Antwerp it is done by the Governments of Belgium and Holland. To Hamburg by the state, under the same general management as the port. At London by the Thames Conservancy, and is a charge on the shipping.

VIII.—PORT EQUIPMENT.

Sheds and Storehouses.—For the receipt of freight and baggage and the convenience of passengers, wharf sheds have been developed to a high degree of excellence. They are no longer on trial, and modern sheds are built on permanent foundations and of lasting construction.

In these sheds, besides sheltering goods in storage, the various processes of sorting, passing customs, and examination can conveniently be carried out.

The use of these sheds is limited to the actual time required, and the goods should not remain longer than a few days.

Shed space next the ship should afford ample accommodation or the economic and rapid manipulation of cargo, and usually when ships load and unload at the same berth, where this cannot be had on one level sheds of two or more storeys are provided.

Storage for longer periods cannot take place where shipping will be inconvenienced, and warehouses are then resorted to.

Freight-handling Devices.—One of the greatest lessons to be learned in European ports is the tremendous use made of labour-saving, time-saving, freight-handling devices. Cranes in vast numbers are everywhere. Transporters for carrying packages long distances, carriages for shifting cars from one set of tracks to another. Lifts, chutes and jiggers of all kinds are in evidence.

SESSIONAL PAPER No. 21c

Equipment must of necessity be planned to meet the special requirements and conditions of the port for which it is intended. It by no means follows that because a given port equipment answers its purpose in its own port that its counterpart will be efficient if placed elsewhere. The chief consideration in deciding upon the nature of a port's equipment would seem to be the special nature of the port's business. The port of Liverpool, for instance, has very little direct railway communication. The bulk of its business is transacted from ship to ship and from ship to vehicle, by means of transit sheds and *vice versa*. Antwerp's business is done from ship to railway, from ship to barge direct, or from ship to vehicle, by means of transit sheds, and *vice versa*.

Hamburg employs four methods, ocean ship to coasting ship, ship to railway, ship to lighter and ship to canal barges.

Manchester, from ship to storage, to railway, and to vehicle.

Here, therefore, are four of the large European ports, each with an enormous tonnage and each handling this tonnage in a different way. It is quite manifest, therefore, that equipment both for handling devices, warehouses and transit shed accommodation must be specially adapted to the special needs of each port.

In Antwerp, where a large portion of the business is done by team traffic, and the area in the port permits sufficient storage space, the transit sheds are one storey and the teams circulate all through them.

In Liverpool, where a large part of the business is carried on by team traffic, but where land area available for storage is limited, the transit shed development is single and double and three storey. Where the sheds are single storey the teams circulate throughout, and both in Antwerp and Liverpool the paving of the sheds to which teams are admitted is stone blocks.

In Hamburg, invariably the transit sheds are set back from the water far enough to admit of between one to four lines of railway and a landing platform for the reception of goods.

In Liverpool this practice is not always adhered to, many of the sheds being close to the water side.

All this goes to show how important it is to fully realize the conditions prevailing in a given port in order to supply the proper development facilities for it.

Fire and Police Protection.—Fire protection is usually taken care of by the city and by the port authorities. Fire engines on land and fire tugs within the harbour, many harbour tugs being equipped with fire-pumps.

Police protection is provided in most cases by the city, though instances are not infrequent where the port authorities undertake this duty.

IX.—PORT ADMINISTRATION.

Under this head are to be found great varieties of administrative methods, among which the following are most frequent:—

1. Where the chief authority is vested in the State, as at Hamburg and Devonport.
2. In the municipality, subject to State control, as at Antwerp and Bristol.
3. In private or public companies, as at London and Manchester.
4. In a railway company, as at Southampton and Cardiff.
5. In a public trust, as at Liverpool and Glasgow.

State control in Germany has been unquestionably a marked success, where the railways and waterways also come under the same authority. Mixed control by the State, private corporation and the railways has been a failure, as demonstrated by the loss of business and prestige in Marseille, whereas dual management by municipality and State has produced in Antwerp a great port. London is an

example of private individual effort and a multiplicity of port authority, the river being under one authority, the pilotage arrangements under another, and the docks and quays under the control of the different individuals directly interested in them. This type does not recommend itself to the investigator.

Liverpool, where the organization is in the hands of men who though directly interested in some particular business connected with the port, make their share in its management the pride of a life career, where the expenditure of large sums of money has been carried out with a view to harmonious development as a whole, is another type of successful enterprise.

X.—PORT CHARGES.

Under this head three sources of revenue are being availed of in European ports:—

1. Charges against the ship.
2. Charges against the goods.
3. Charges for rental of berth and shed space.

In London the channel of the river is being deepened by doubling the tonnage dues on the ship for three years.

In Antwerp there is no charge against the goods.

In Hamburg the Hamburg-American Steamship Co. leases seven piers fully equipped by the port authorities with transit sheds, cranes, &c.

The company pays for these privileges:—

1. An annual rental of \$325,000 for the space rented.
2. The regular tonnage dues imposed by the port.
3. Maintains the leased property in good condition.

It is, however, universally recognized that the maintenance of a port and the interest on the cost of its development cannot in its early stages be wholly paid out of the charges imposed. It is also recognized as a matter of policy that modern harbour development is essential, notwithstanding the above fact and that the State or the controlling power of the harbour must make up the difference in the cost of maintenance and interest from other sources in the interest of the whole country at large.

XI.—THE FINANCIAL SITUATION.

The amount of money represented by modern port development, as near as can possibly be ascertained, is as follows:—

London.....	\$186,700,000
Liverpool.....	125,000,000
Manchester.....	90,000,000
Glasgow.....	40,000,000
Newcastle.....	80,000,000
Bristol.....	30,000,000
Cardiff.....	30,000,000
Antwerp.....	45,000,000
Hamburg.....	100,000,000
Rotterdam.....	33,000,000
Marseille.....	29,500,000
Havre.....	24,000,000
Montreal.....	10,000,000

The rate of interest paid by the port authorities on the money borrowed, sanctioned by corporation or State, varies from 2½ to 4½ per cent.

XII.—PORT DESIGN AND CONSTRUCTION.

Striking Features of Design and Construction.—The striking features of British and Continental construction are permanence and continuity of purpose. Though the work may be carried on over a large time area, the whole is the result of a complete original plan or leading idea carried out by sections as the demands of the business warrant. Time is taken to carefully consider and prepare complete plans.

In the later development of modern ports no small attention has been given to the artistic effect of the completed scheme. In many cases it has been possible to provide recreation areas, in the shape of broad and spacious promenades for the people, without in any way interfering with efficiency.

Provision for the Future.—Designs are made with a view to future extensions. The more successful ports—as Liverpool, Hamburg and Antwerp—with courage and confidence in the future, provide for anticipated trade. As a result they are the leaders in progress.

Designs are made with a view to future extension.

The more successful ports keep their development ahead of the demand and so capture the trade when it comes.

Antwerp has embarked at this moment on a further port extension scheme, definitely laid down and sanctioned by Parliament, into which is to go \$60,000,000.

Engineers.—The engineering profession, through the importance placed upon its integrity and high standing, the remuneration it commands, has attracted to it men of commanding ability and executive skill. They study not only the technical features, but they qualify themselves for expert executive advice and take prominent part in the councils of commercial and corporation boards.

Manner of Construction.—The improvement of rivers, in all its branches, and as a rule the maintenance of docks, is done departmentally—that is, by the officers and men of the port authorities. In Liverpool and Glasgow, where continuous development has evolved an experienced staff and efficient plant, most of the dock construction is also carried out departmentally.

As a rule sheds, equipment and works of a special nature are done by contract.

As a general rule, large works are constructed more rapidly by high grade contractors, but it does not lend itself to modifications due to experience gained as the work progresses, and most engineers claim that when they put in the work themselves they know what they are getting.

Contract Work.—Tenders are invited from firms of known integrity only. The lowest tender is not by any means always taken, and great consideration is given to the contractor's record, to the work he has in hand, to the programme he can put forward, to his organization and plant for the work.

Contractors.—The standing of contractors is very high. Owing to the fact that the lowest tender is not considered of more advantage than the one best equipped for the work, sound firms remain in the business and continue for generations. They ask for prices to make a profit and thoroughly modify without difficulty. Their prices being so much per unit there is very little question of extras. If the work is enlarged they usually continue it without question, asking and obtaining such increase as is fair under the circumstances. They have on their staffs high-class engineers, and the relation between the engineers and the contractors is more easily maintained from the fact that the class of their work is high and there is little cause for friction with regard to extras or overtime. The

contractors' organization is complete, but for economy and labour-saving appliances in construction Canadian contractors have nothing to be reproached with.

The latest method of putting in permanent submarine foundations, as developed by British engineers and contractors, is of the greatest possible moment to Canadians in view of the high cost of timber, its non-permanence and the great height of modern dock walls.

XIII.—GENERAL IMPRESSIONS.

1. The ports that are doing the biggest business and doing it most efficiently, are the ports that have kept their facilities ahead of actual requirements.

2. The ports that have remained stationary or lost in prestige have been those who neglected to provide facilities before business was forced to seek elsewhere the same facilities provided by rival terminals. Business follows the facilities.

3. Unity of authority, concentration of business, depth of water areas, and facilities for despatch of business are the prominent characteristics of successful port administration.

4. The necessity of providing large and convenient storage areas where cargo may be collected and cared for.

5. The lowest cost of handling cargo from the hold of the ship to consignee and *vice versa*, was found to be in a port where one authority controlled the entire operation, and where the transit sheds were three to five storeys high.

6. That special facilities for the care of Canadian perishable products have been provided in British ports on a large and complete scale.

7. That equal facilities should be provided at Canadian terminals.

8. That the legitimate expansion of Canadian trade demands the immediate development of Canadian sea terminals if Canadian business is to be handled by Canadians.

9. That neglect to provide immediately these necessary facilities in Canada will have for effect the establishment of trade routes over which no control can be exerted by Canadians.

10. Great port development has invariably been followed by increase of trade and population.

11. Montreal has the power, through her commanding position and great natural advantages, of affording the best terminal facilities at a less cost than any European port of importance, and this advantage can hardly be equalled by any port on the North American Continent.

CONCLUSIONS.

In view of the actual situation at Montreal:—

1. Where the present port development only partly takes care of the existing trade;

2. Where the tonnage has doubled in five years and a vast increase in trade is in sight;

3. Where marine insurance rates have been cut in two in the same time;

4. Where new business can easily be developed with increased accommodation and facilities;

5. Where Nature has provided a thousand miles of magnificent navigation into the heart of a continent;

6. Where interior navigation through Canadian canals provides means of traffic distribution on a scale not equalled by any port in the world;

7. Where direct railway access is provided to every railway in the country on equal terms;

8. Where a 30-foot ship channel now exists from Montreal to the sea with possibilities of enlarging and maintaining it at a lower comparative cost than any European approach channel;

SESSIONAL PAPER No. 21c

9. Where the aids to navigation throughout a thousand miles of water channel are also of a type not excelled in any other port visited or its approaches;

10. Where comparative port expenditures to date are entirely in favour of Montreal.

In view of these facts, it would seem to be most urgent to supplement without loss of time these great advantages:—

1. By making the most of our present accommodation through its proper equipment;

2. By doing everything in our power to attract shipping by securing absolute safety of approach;

3. By laying down a general plan of future development with a view of providing at Montreal a port equipment equal to that of Hamburg or Liverpool;

4. By encouraging the railways serving the port of Montreal to develop more intimate traffic relations with the railways serving the British and Continental ports;

5. By developing and equipping a modern winter port providing ample accommodation to take care of the trade developed through Montreal during the season of navigation;

6. By incorporating in the future general plan of expansion a free port district after the model of Hamburg: and so inaugurate a port development on Canadian soil which, by its prestige of position and strategical trade value, will command not only Canadian business, but a large part of the Western export and import business of the North American Continent.

PORT OF LIVERPOOL.

I.—INTRODUCTION.

Within the massive walls of a newly-constructed administration building, looking out over the entire harbour, throbs the heart of the greatest port in the world.

Although Great Britain's sea power during Elizabethan times achieved a position that has since preserved her commercial integrity, Liverpool's maritime commerce was then being carried by fifteen ships, with an aggregate burthen of 268 tons. The sand dunes sloping to the river were undisturbed by artificial construction, and no shelter for ships existed.

Nature has, however, been overcome by the courage, persistence and skill of determined men, who, in the words of a former dock chairman, have made of Liverpool "a purse out of a sow's ear."

Municipal control retarded for years the port's development, as did also a compromise arrangement whereby a division of authority existed, part elected by shipowners and part municipal. The destinies of the port by Act of Parliament came under the jurisdiction of the Mersey Docks and Harbour Board, in whose hands the port has had continued harmonious development for over half a century.

Trustees of an inheritance the magnitude of whose responsibilities remain unmatched, the Board's present organization numbers among its members some of the most eminent men in Liverpool, who deem it of the highest honour to take part in the deliberations of the board, without any remuneration whatever.

II.—OCEAN BUSINESS.

Liverpool handles about ninety per cent of the entire cotton trade of Great Britain, in addition to which she handles grain, wool, timber, sugar, tobacco, provisions, cattle, and fruit in large quantities.

By making use of every inch of possible space at the dock side it has been possible to increase in one hundred years the number of vessels from 4,000 to 25,000 entering the port, and the tonnage from 500,000 to 12,000,000. The dues have increased in the same time from \$225,000 a year to \$6,500,000.

III.—FEATURES OF SUCCESS.

Up to the year 1857 the controlling authority of the port on the Liverpool side of the River Mersey was vested in a dock committee, whose action was subject to the control of the Liverpool town council, who were the then trustees of the Liverpool docks. The docks on the opposite side of the river at Birkenhead were owned by a company styling itself "The Birkenhead Dock Company," up to about the same time, when they were purchased outright by the Corporation of Liverpool. Unity of purpose, concentration of authority and the gateway to a densely peopled manufacturing area, are the three chief factors in making and preserving her prestige as a port.

IV.—TYPES OF PORT BUSINESS.

(a) *Ocean Ship to Coasting Ship.*

Liverpool has always been a large port of transfer where her ocean imports might be redistributed to foreign and home ports not trading directly with the large trade centres, situated in far-off parts of the world.

(b) *Ocean Ship to Railway direct.*

The necessity for direct railway communication between the different docks is only just making itself felt. The reason of this seems to be that whereas in former times Liverpool was almost exclusively a warehousing port, goods in transit being conveyed between the ships and warehouses by vehicle, competition is bringing about a demand for the saving in handling made possible by direct shipment from ship to rail, and *vice versa*, and the proportion of Liverpool's general cargo business directly shipped is increasing year by year.

(c) *Ocean Ship to Warehouse by Vehicle.*

This has always been the favourite handling method in the port, and facility is afforded for the despatch of merchandise by this system. The huge dray loads drawn by heavy-class horses admirably suited to the work form a marked characteristic of the port.

V.—PORT TYPES.

The port of Liverpool explains the power and possibilities of artificial development, as the whole of it consists in a series of docks constructed in most cases on the foreshore and entered by means of gates from the river proper. Thus the entire shipping of the port, when once docked, is entirely free from the annoyance of tide variation.

VI.—DRY DOCKS.

The Harbour Board own seventeen dry docks, of which the Canada Graving Dock enjoys the distinction of being the largest graving dock in the world.

SESSIONAL PAPER No. 21c

The description of this dock is as follows:—

Length from point of sill to dock head.....	925 $\frac{1}{2}$	feet.
Length occupied by keel blocks.	925 $\frac{1}{2}$	"
Width of entrance.....	94	"
Width of dock at floor level.....	94	"
Width of dock at cope level.....	124 $\frac{1}{6}$	"
Depth of dock from cope to floor.....	40 $\frac{3}{8}$	"
*Depth of water over sill at H.W.O.S.T.....	31 $\frac{5}{8}$	"
*Depth of water over sill at H.W.N.T.....	24 $\frac{7}{12}$	"
Depth of water over keel blocks.....	Same as on sill.	
Capital cost of Canada Graving Dock (including 40 ton crane, but excluding land).....	\$1,193,660	

In addition to the graving docks owned by the Dock Board there are several privately owned dry docks in the port.

VII.—APPROACH CHANNELS.

The approach to Liverpool is by way of the Irish Channel, Liverpool Bay, and the River Mersey, at whose mouth the port itself is situated.

VIII.—ACCOMMODATION FOR VESSELS.

	Water Area.	Lineal Quayage.
	Acres.	Miles.
Total water area and lineal quayage of Liverpool Docks and Basins.....	418	27
Total water area and lineal quayage of Birkenhead Docks and Basins....	166	9
Total.....	584	36

Total area of Dock Estate.

Liverpool.....	1,171	acres.
Birkenhead.....	506	"
	1,677	"

* The depth of water can be increased as desired by pumping.

The 27 miles of Liverpool's lineal quay length is concentrated within about 8 miles of water front.

This wonderful development, representing such vast expenditure, made almost entirely since 1857, when the port was rescued from the administration of the Liverpool Town Council, is hardly paralleled by any other port in the world.

IX.—PORT EQUIPMENT.

In addition to possessing the largest graving dock in the world, which has been appropriately named after the largest colony within the Empire, and called the "Canada Graving Dock," Liverpool enjoys the distinction of possessing also the largest single warehouse in the world, which is one of a system of 27 blocks of warehouses under the control of the Dock Board. The total area of its 14

floors is 36 acres; it is constructed of brick and steel, and fitted with hydraulic lifts for goods and passengers. It has a capacity for 66,000 hogsheads of tobacco, the approximate weight of which is 77,000,000, pounds. The value of its contents is \$12,000,000, and the amount of duty payable on the 66,000 hogsheads would be, at 72 cents a pound, the prevailing rate, about \$55,000,000.

Special facilities for handling cattle have been provided and centralized at Birkenhead, and these are among the most extensive and complete in Great Britain.

Railways have direct access to these slaughter-houses, and rapid and efficient distribution of their contents is made throughout the Kingdom.

On the Liverpool side it was a pleasure to note that the Canadian Pacific Railway have secured permanent allotment at the Sandon Dock with its fine double-storey sheds, and have at their own expense equipped these sheds with extensive cold-storage arrangements to meet the requirements of Canadian shippers and importers of perishable products. By these means the butter, cheese, fruit, and meat from Canadian farms are carried direct from the cold-storage chambers in the ship into the refrigerated chambers on the quay.

Liverpool having also a large passenger trade, special passenger facilities have been provided. The well known landing stage, with its fine deep water approaches, its proximity to the main lines of railway, make it possible for passengers and baggage to be transferred within the least possible time. This method of accommodating passenger traffic has taken the place of the old system under which the ships anchored out in the river and discharged their passengers and baggage into tenders. This landing stage, so well known to ocean travellers, is a huge structure floating upon pontoons, and is about 2,500 feet long, and rises and falls with the tide. From it to the railway station alongside lead numerous automatically adjusted bridges for passengers and platforms for baggage, altogether the best passenger facilities in the world, affording comfort and despatch.

The different docks and quays are supplied with hydraulic, steam and electric cranes of varying capacity, one of the most recently erected being a coal crane with a capacity of 30 tons, lifting a car wagon at a time. The number of hydraulic, steam and electric cranes at the cargo quays exceeds 230 of a capacity of from one to 100 tons, and the height of lifts vary from the ground floor to 106 feet. There are also floating cranes varying in capacity from 25 to 100 tons, capable of lifting 95 feet above the water level.

At Liverpool two main lines of railway run in close proximity to the docks throughout their entire length, and many of the berths appropriated to the largest class of steamers are connected with the main lines to enable direct shipment from ship to railway wagons to take place, and the connecting up of other berths with the main lines is progressing rapidly. Birkenhead is practically a railway port, lines of railway being laid in every possible direction, and the main bulk of the traffic is carried in railway wagons. Within the dock estate there are over 75 miles of railway.

Above the two main lines of railway on the street level an overhead passenger railway, worked by electricity, has been constructed. This railway was primarily made for the convenience of passengers having business at the docks, but steps are now being taken to connect the railway with some of the main systems running into the city, with a view of its being more extensively used by passengers and also for goods traffic.

Almost opposite the landing stage can be seen the new and modern ship-building yards of Messrs. Cammell, Laird & Co. The site, owned by the Mersey Dock and Harbour Board, is leased to this company for 50 years, and the company has constructed a large dock with a water area of 15 acres, the entrance thereto being 90 feet and the depth over the sill 37 feet. A large graving dock 860 feet long, and numerous high-power cranes, fitting and repairing shops, are easily and rapidly accessible to the shipping of the port.

SESSIONAL PAPER No. 21c

Two-storey sheds have been in use in the port of Liverpool for 25 years, and the latest shed development is now three-storey. The adoption of three-storey sheds in a port like Liverpool, where the land area available immediately alongside the dock is limited, has the effect of trebling the port's storage capacity, and is the only available method in ports so constituted to provide adequate and efficient transit facilities for the rapid handling of cargoes. The lower floors of these sheds are almost invariably square setts. The upper floors are of concrete. The latest three-storey shed is built entirely of concrete (reinforced) from top to bottom. The means of communication between the different floors within the shed itself consist of openings in the floors, at convenient intervals, down which small jigger cranes do their work. When working the first floor from the ship the cargo leaves the hold of the ship by means of the ship's winches and tackle, the land cranes taking the cargo from the ship's deck and depositing it on the ground or first floor of the shed. The land cranes can take the cargo direct from the ship's hold, if required. The cargo is then distributed at will on any of the shed floors by means of chutes and the jigger cranes referred to. On the land sides of the sheds are fixed to the outer wall a second series of small jigger cranes, and the goods are lowered from floor to floor or floor to ground in this way.

X.—PORT ADMINISTRATION.

In 1857, by virtue of the Mersey Docks and Harbour Act, the control and management of the docks on both sides of the river at Liverpool and Birkenhead passed into the hands of the present Board, which consists of 28 members, of whom 24 are elected by the dock ratepayers. To qualify for election to the Board a ratepayer must reside within the borough of Liverpool or within 10 miles of the outward boundary of the port, and must pay within the year immediately preceding the election not less than \$125 in dues, either on ships or goods coming to the port. The remaining four members are appointed by the River Mersey Conservancy Commissioners, consisting of the First Lord of the Admiralty, President of the Board of Trade, and Chancellor of the Duchy of Lancaster. Each member is elected for a term of four years, and is eligible for re-election, receiving, as stated before, no remuneration whatever, the position being regarded as one of the highest honours within the gift of the people, and this honour is loyally observed.

To qualify as an elector a ratepayer must pay to the Board a minimum yearly amount in dues of \$50, must be a British subject, or resident within the United Kingdom, and his name must be on the list of dock electors.

Six elective members and one appointed member retire each year, and are replaced by newly nominated men.

The Board itself replaces vacancies occurring from time to time.

The work of the Board is carried on by committees, of which there are 10. The committees themselves meet once a week, as does also the whole board. The reports of the different committees are submitted to the weekly meeting of the Board for official approval. The meetings of the different committees are private, whereas the weekly meeting of the entire Board is held in the Board room and is a public meeting. The Board is presided over by a chairman elected annually from among the members.

The Mersey Docks and Harbour Board licenses pilots, regulates charges, and looks after the lighting and buoying of the river.

The jurisdiction of the Board already extends over an area of 1,677 acres, but in addition to this the Board has foreseen the necessity of future expansion, and has acquired large tracts of land admirably situated for further port extension.

As a harbour policy the Board has not hesitated to wipe out of existence any formerly constructed dock development that interfered with the demands of

expansion, and many instances were noticed of permanent works disappearing where necessity demanded, to make way for new conditions.

The ship's responsibility in the handling of goods ceases at the ship's sling, and the cargoes are delivered into the hands of master porters, licensed by the Board, who sort the cargoes in the sheds to bill of lading marks and deliver them to the consignees.

The charge made for this service is regulated by the Dock Board. Loading is done by master stevedores and the unloading by master lumpers, also licensed by the Board. Where, however, the Dock Board works its own warehouses, goods on the quays are usually handled by their own employees.

Through the perfected master-porterage system consignees get their goods delivered in the shortest possible time with little confusion and at a very small cost.

A limit is fixed of 72 hours during which time the goods may remain on the quays after the docking of the ship. A charge of one cent per yard per day is made for space occupied after this time.

XI.—PORT CHARGES.

Charges against the ship are divided into two categories; those levied on the nett tonnage of ships entering the port of Liverpool, and known as harbour dues, varying from $\frac{3}{4}$ cent to $1\frac{1}{2}$ cents per ton on coastwise business, 3 cents per ton on vessels to and from Europe, Newfoundland—the Mediterranean excepted—and 3 to 4 cents per ton on vessels to or from Mediterranean and all foreign ports outside of Europe. A deduction of 25 per cent is at present allowed from these harbour dues. The above rates constitute the tonnage dues paid by shipping entering the port of Liverpool. In addition, however, the ship pays tonnage dues for the use of dock accommodation as follows:—

	Cts. per ton.
On vessels to or from Mediterranean and all foreign ports outside of Europe.....	32
To and from Europe, Newfoundland, the Mediterranean excepted.....	20 to 26
Coastwise.....	$5\frac{1}{2}$ to 12

Ships remaining in dock more than two months pay a rental of 2 cents per ton per week, which is increased to 4 cents per ton per week after 6 months.

Ships using dock accommodation are not charged harbour dues, and against these only the dock tonnage dues apply.

In the Dock Board method of accounting, however, the harbour rates are taken out of the dock tonnage rates and placed to the credit of the account, to which are applied the cost of lighting, buoying, and generally for improvement to port and harbour as distinct from the docks themselves.

Ships having permanent annual berths pay a shed rental equal to 62 cents per square yard per annum. The same price is paid for space on the second and third storeys of the sheds as for the ground floor.

Charges against the goods are levied according to specified tariffs issued from time to time.

XII.—FINANCIAL SITUATION.

The amount of capital invested in this dock development, for which money has been borrowed by the Mersey Docks and Harbour Board, amounts to nearly \$125,000,000. The rate of interest varies from $2\frac{1}{2}$ to $4\frac{1}{2}$ per cent.

The accounts of the Board are regularly audited by independent auditors.

SESSIONAL PAPER No. 21c

Revenue and expenditure figures for year ending July 1, 1906, are as follows:—

	\$	cts.
Dock tonnage rates on vessels.....	3,203,033	09
Dry dock rates “.....	190,490	05
Dock rent “.....	56,857	25
Dues on goods.....	3,241,199	28
Slaughter-houses.....	336,302	72
Warehouses (receipts).....	1,090,962	79
Interest paid by Board.....	4,327,667	06
Dredging.....	179,566	64
Lighthouses, lightships, buoys and insurance...	188,483	61

PORT OF LONDON.

I.—INTRODUCTION.

London being the financial, commercial, and maritime centre of the world, has held this commanding position in spite of huge port developments that have taken place elsewhere in the last half century, in spite of natural difficulties and those artificially raised by local conditions within her own limits. This has been possible mainly because of the sagacity of her traders, her advantageous position as a distributing centre, and the huge consuming power of her densely-peopled surroundings.

For many years attempts have been made to improve conditions within the port. Diversity of interest, multiplicity of authority, and the power of long-established customs have stood in the way.

London has not yet lost her pioneer position. Signs point to the necessity of reorganization on a big scale to take care of the future.

The ownership, hitherto individual or corporate, is by virtue of several years' work about to culminate in the foundation of a new Port Authority, by Act of Parliament, which will consolidate the different interests under single control and permit harmonious expansion.

II.—OCEAN BUSINESS.

The river life of the Thames is like that of a crowded thoroughfare, the huge overtowering ocean liners, the coastwise ships, the fishing craft, the coalers, the barges and lighters all jostling each other in the tideway like throngs in a busy street. Here it is that all the world meets—India, Ceylon, China, Japan, South America, Africa, Australia, Canada, United States, Mexico, and Europe in one huge interchange of trade. It takes nearly 20 million tons of inward shipping and a similar tonnage of outward shipping to transact the enormous business of the port of London. The annual volume of the imports and exports is \$1,570,000,000, including exports of foreign and colonial merchandise.

III.—FEATURES OF SUCCESS.

History fails to reveal accurate details concerning the earliest development of the port. With the growth of London's commercial prestige, far-sighted merchants saw the benefits to be derived from dock development. The more sagacious purchased the land areas in the neighbourhood of the port expansion, and so it is that London has been supplied with dock facilities by the investment of private and corporate capital at different times, thus introducing several independent owners on a competitive basis within the limits of the port.

As long as London controlled the monopoly of trade distribution this method was found to answer the needs of the situation, but other British and continental ports became alive to the transformation that was on, in the size of ships the world over. Hamburg, Rotterdam, and Antwerp on the continent; Liverpool, Bristol and Southampton all became better equipped to handle the big ships. As a consequence London now finds herself compelled to do likewise.

IV.—TYPES OF PORT BUSINESS.

(a) *Ocean Ship to Coasting Ship.*

This has always formed a very considerable portion of London's business, redistribution taking place through a well organized coasting service.

(b) *Ocean Ship to Warehouse by Lighter.*

The lighterage trade on the Thames is perhaps the most characteristic as well as the most picturesque feature of river life. The proximity of warehouses to the riverside, the free access of the lighters to all the docks, and the tidal nature of the river make this a popular and economic method of transfer.

Both sides of the River Thames from London Bridge down are for miles lined with warehouses which take in cargo direct from the river, either from lighters or from the smaller ships that moor alongside.

These barges are owned by private companies or individuals, and are licensed by the Watermen's Company at \$125 per barge with renewal fees of \$1.25 per annum for any number not exceeding five, and \$2.50 for any number over five.

No revenue to the port of any kind comes from these barges, except on sailing barges over 45 tons register, trading between London and other ports, which, of course, pay the coastwise tonnage dues.

As no sea-going ships, except a few specially built colliers, pass above London Bridge, there is an immense lighterage trade done from the ship's side to warehouse or jetty, the volume of which can be imagined when in round figures there are engaged in this trade nearly 10,000 barges, varying in tonnage from 70 to 200 tons.

V.—PORT TYPES.

The port of London, like most of the European ports, is tidal, and its development has consisted of three phases:—

Riverside quays.

Interior docks.

Water berths.

The riverside quays are those on the banks of the river where vessels may come straight up from the sea alongside their berth and remain afloat.

Water berths are simply moorings or anchorage places in the river, marked by permanent buoys of sufficient strength to permit ocean craft to tie up to them. Of these water moorings there are 62 tiers, accommodating 121 ships. These are generally used by small vessels, but occasionally by ships up to 5,500 tons net register, which unload general cargo overside into barges by means of the ship's crane and tackle. They are also specially used by tank steamers with high-test lubricating oils.

In addition to these, there are 16 swinging moorings, each of which holds one vessel. The number of vessels using this class of berth that do not touch the riverside wharves or enter the docks, but take up their moorings in the river at these buoys, is annually 3,000, with a net register tonnage of 1,600,000 tons. Vessels availing themselves of this accommodation pay no charge other than the usual Conservancy tonnage dues when entering and leaving with cargo.

SESSIONAL PAPER No. 21c

Almost one half of the shipping coming up the Thames discharges in the river itself, either at moorings in the stream or at one of the 320 wharves which line the river. The other half discharges in the docks.

The wharves and jetties in the river are estimated to contain 80,000 linear feet of quay, and are estimated to have cost \$65,000,000.

All the principal docks in the port of London are owned by dock companies, and have been built by private or corporate capital as an investment.

Of these the most important and extensive is the London and India Dock Company, within whose jurisdiction come all the dock systems on the north side of the river, with the exception of those of the Millwall Dock Company, the latter company being practically the only competitor of the London and India Docks Company on that side of the river.

On the south side of the river the Surrey Commercial Dock Company, in like manner, own all the docks.

The distance of the various dock entrances from London Bridge, in nautical miles, is as follows —

St. Katharine Docks	$\frac{1}{2}$
London Docks—	
Hermitage entrance.....	$\frac{3}{4}$
Shadwell entrance.....	$1\frac{1}{2}$
Surrey Commercial Docks—	
Surrey lock entrance.....	$1\frac{1}{2}$
New entrance.....	3
West India Docks—	
Limehouse entrance.....	$2\frac{1}{2}$
Blackwall entrance.....	$5\frac{1}{2}$
Millwall Dock.....	$3\frac{1}{4}$
East India Docks.....	$5\frac{3}{4}$
Royal Victoria Dock.....	$6\frac{1}{4}$
Royal Albert Dock.....	$9\frac{1}{4}$
Tilbury Docks.....	$22\frac{3}{4}$

The dock premises consist of various systems of wet docks, dry docks, warehouses, machinery and plant.

A wet dock is an artificial basin of water furnished with gates which are kept closed, except at high water, so that vessels in the docks float at a constant level, notwithstanding the variation in the depth of water in the river or sea outside. It is this feature that distinguishes docks from harbours.

Vessels generally enter or leave these docks a short time previous to or after high water.

The advantages of docks, as compared with harbours or open rivers, are stated to be:—

1. Constant flotation of the vessel.
2. Concentration of business.
3. Maintenance of a fixed water level, which facilitates the rapid discharge or loading of vessels.
4. Immunity from collision.
5. Greater safety at all times.
6. Security against robbery of the cargo.

VI.—DRY DOCKS.

The port of London possesses twenty-eight dry docks varying from 161 to 846 feet long with entrances 40 to 70 feet wide and depths on sills from 14 to 35 feet at Trinity High Water.

VII.—APPROACH CHANNEL.

Between Margate and The Naze, where the estuary of the Thames may be said to begin, there are 28 miles of water, which narrows down to $6\frac{1}{2}$ at the Nore Light. The length of the channel from the Nore Light to London Bridge is $47\frac{1}{2}$ miles, the depth and widths of which are as follows:—

	Width.	Depth.
	Feet.	Feet.
Nore Light to Mucking, a distance of $13\frac{1}{2}$ miles.....	1,000	26
800 feet of this, however, near No. 4 Sea Reach Buoy, narrows to.....	800	25
Mucking to Cliffe Creek, a distance of $2\frac{1}{2}$ miles.....	1,000	25
Cliffe Creek to Gravesend, a distance of 4 miles.....	1,000	26
Gravesend to Crayfordness, $8\frac{1}{4}$ miles.....	1,000	24
(Narrowing down to 750 feet and 17 feet depth.)		
Crayfordness to Royal Albert Dock, 5 miles.....	500	22
Royal Albert Dock to Millwall Dock, 7 miles.....	300	14
Millwall Dock to Thames Tunnel, 2 miles.....	300	16
(The depth, however, over the Tunnel remains at 13 feet for a width of 120 feet.)		
Thames Tunnel to London Bridge, $1\frac{1}{2}$ miles.....	200	14

These depths are from soundings taken at low water of ordinary spring tides.

At London Bridge the variation in tide is about 21 feet, at the Nore Light 15 feet, and has a velocity varying from $2\frac{1}{2}$ to 4 knots.

The bed of the river is mostly mud and fine sand.

Continuous dredging takes place, but the ebb and flow of the tide seems to fill up in certain places as fast as the dredges can take it away.

VIII. AND IX.—ACCOMMODATION FOR SHIPS AND PORT EQUIPMENT.

London and India Docks Company.

Out of the total of 640 acres of water and 143,000 linear feet of quay length, this company owns and controls 430 acres of water and 106,000 feet of quay.

Its jurisdiction extends over—

- (1) The St. Katharine Docks.
- (2) The London Docks.
- (3) The West India Docks.
- (4) The East India Docks.
- (5) The Royal Albert and Victoria Docks.
- (6) The Tilbury Docks.

The number of vessels entering in 1904 to discharge was 4,665 $\frac{1}{2}$ with a net tonnage of 5,959,000 tons.

The permanent staff of this company numbers 4,600, including 340 in the Engineer's Department alone, which carries out the work of maintaining the docks; and 324 in the Police Department, which is responsible for the protection of the valuable produce stored in the warehouses.

The Dock estates cover 1,800 acres, and they possess a floor area of 15,500,000 square feet available for the handling or storage of over 900,000 tons of goods.

The company owns and operates warehouses in the city, and does a general warehousing business.

SESSIONAL PAPER No. 21c

The St. Katharine Docks are only accessible to steamers of moderate size, mostly used in the coasting and continental trades. The warehouses are used principally for the storage of tea, 32,000 tons of which are housed and delivered annually.

London imports 169,000 tons of tea annually, mostly from India and Ceylon.

Other goods handled at these warehouses are indigo, wool, bark, gutta-percha, and india-rubber.

There are three hydraulic engines at this dock, of 630 horse-power, to supply them with power.

The London Docks adjoin the St. Katharine Docks, and occupy 100 acres, 40 of which are water. The storage capacity of the warehouses and vaults is vast. The floor area consists of 3,000,000 square feet, with a capacity of 170,000 tons. Special premises are set apart in these warehouses for the working and showing of wool, wine, brandy, sugar, dried and green fruits, ivory, spices, bark, gums, metals, drugs, dates, pepper, rice, coffee, cocoa, isinglass, &c.

One of the special features of this dock is its wine vaults, down below the river level. The length of the passage ways in these vaults is $28\frac{1}{4}$ miles.

West India Docks.—The entrance to this dock from the River Thames is 480 feet long and 60 feet wide and 30 feet deep. In order to make up for the losses of water caused during the ingress and egress of ships through these locks into the dock, four centrifugal pumps of 760 indicated horse-power are provided, with a capacity of 7,500,000 gallons an hour, sufficient to raise the water over the entire area of 105 acres $3\frac{1}{8}$ inches an hour.

These docks consist of 244 acres, 105 of which are water. There are three parallel sets of docks, each about half a mile long, with warehousing accommodation close to the water. The principal business consists of rum, meat, sugar, butter, hops, and all kinds of wood.

The large frozen meat trade, mostly from New Zealand and the Argentine, is accommodated at No. 5 Warehouse, where there is room for 100,000 carcasses of sheep. The meat received is discharged either direct from the vessels or from insulated barges conveying it from vessels discharging at other docks. The temperature is kept at an average of 19° Fahr., or 13° below freezing point. The process used is that of De La Vergne compressors, constructed by Haslam and Company, of Derby.

There are seven hydraulic engines, of 700 indicated horse-power, pumping the pressure water to work the 280 hydraulic machines in this system of docks.

East India Docks.—These consist of an import and export dock, and a basin, the entrance to which is by a lock 31 feet deep.

The docks are principally used by sailing vessels and steamers of the Union Castle Line, trading to the Cape. Three hydraulic engines, of 181 indicated horse-power, supply the pressure water for working the 100 hydraulic machines in these docks.

Royal Albert and Victoria Docks.—These are the largest in the control of the company. Water in the docks is maintained at high-water level by four centrifugal pumps with a capacity of 7,500,000 gallons of water an hour.

Water area is 183 acres, providing berths for 60 vessels. The sheds and warehouses of these docks cover an area of 3,100,000 square feet.

The warehousing business here carried out is principally in grain, tobacco, and frozen meat. 20,000 tons of tobacco are in bond at one time, the market price of which would be about \$45,000,000. The stores for the frozen meat business are probably the largest in the world, containing 48 chambers of 2,000,000 cubic feet capacity, affording accommodation for 600,000 carcasses of sheep. The freezing plant is on the ammonia compression system of Messrs. Haslam of Derby, whereby air is cooled in passing through brine batteries, and then circulated through the chambers by electrically-driven fans.

There are seven hydraulic pumping engines, with an indicated horse-power of 1,223, supplying power to work the 320 hydraulic machines at these docks.

Tilbury Docks.—These docks are 26 miles from London Bridge, reached by rail in 40 minutes. The system consists of a main dock, with three branch docks, and a tidal basin with a lock 700 feet long and 80 feet wide connecting the basin with the main dock. The main dock is 1,800 feet long and 600 feet wide. The total water area in the main and branch docks is 54 acres, and the depth of the water is 38 feet. In the tidal basin the depth is 45 feet at high water, spring tides, and 26 feet at low water.

Town Warehouses.—In addition to these wet docks and warehouses adjacent to them, the Dock Company operates town warehouses at different parts of London for the storage of goods and for the accommodation of traffic to and from the docks.

The Commercial Road Warehouse, the most modern operated by the company, is built over the goods depôt of the London, Tilbury, and Southend Railway. The depôt is specially designed for the accommodation of traffic to and from the docks. Cars may go alongside the railway platforms, where goods are delivered direct into the railway trucks, or *vice versa*. This warehouse has four floors, with a total area of 358,000 square feet, and is almost entirely used for the storage of cheese and tea.

Equipment.—Within the dock system operated by this company there are 39 swinging or draw bridges, 62 pairs of lock gates, 279 sluices, 1,336 cranes and lifts, 340 capstans, and many other machines; and the movable plant consists of 20 tugs, 5 floating cranes, 30 locomotives running over 80 miles of railway. The machinery used for the working of this immense plant is principally hydraulic.

The handling devices on the quays consist of traveling and fixed cranes, for the discharge and loading of goods, varying from 30 cwt. to 5 tons capacity.

The handling devices within the warehouses for the interchange of cargo from one floor to another consist of elevators ranged in pairs, with a capacity of 10 to 15 cwt.

The handling devices on the water consist of floating cranes for heavy lifts up to fifty tons; steam tugs for the transport of vessels in the docks, which are fitted with steam fire engines for use in case of fire.

There is also an electric lighting plant of sufficient capacity to light the warehouses and docks.

Transit Shed Accommodation.—In addition to warehouses from four to six storeys, there are two types of sheds in use:—

1. A single-storey shed, 350 feet long and 120 feet wide, set back about 40 feet from the water, with rails both in front and rear, so that goods may be conveyed to and from vessels to any railway station in Great Britain.

The sheds are of cheap construction, galvanized iron sides and roof, floors of wood or concrete, no posts in the sheds, and no teams allowed inside. All cargo handled by teams is handled from the side of the shed, where the teams back up and take their load, the floor level of the shed being equal to the height of the teams.

2. The double-deck sheds are of the same cheap construction and comparatively of the same dimensions, set back from the water front sufficiently to allow cranes and railways between them and the edge of the quay wall. The only means of access into the sheds from the ship is by the cranes, and the only means of communication between the upper and lower floors is by means of slides and lifts.

SESSIONAL PAPER No. 21c

Berths.—Two systems of allotment in connection with berths are in force—one exclusively used for export, where a ship takes on her cargo only, unloading at a different berth; the other where the cargo is loaded and unloaded at the same berth. The berths in the dock are rented by the week at the rate of about \$1 per square yard per annum, with the use of the ground floor of the shed only.

Communication.—All docks, with the exception of the St. Katharine, are accessible by rail, water and teams, and are directly connected with all the main railways, whose trucks are brought alongside, the dock company receiving on their tracks the cars from the different railway companies and operating them as a terminal over the eighty miles of trackage within the system.

The Surrey Commercial Dock Company..

The Surrey Commercial Dock Company, however, have made a specialty of accommodation for Canadian produce, and two miles below London Bridge on the south side of the River Thames there was opened in 1904 the Greenland Dock, 2,400 feet long and 450 feet wide, and here has been erected and equipped a series of cold-storage warehouses and grainaries for the specific purpose of properly treating Canadian cargoes of butter, cheese, bacon, and Canadian grain. The warehouses are called 'Canadian Produce Warehouses,' and are known by that name, the combined capacity being about 2,000,000 cubic feet.

The Canadian trade in London is known as North American traffic. These produce warehouses are set about 120 feet from the water side, and between them and the ship is a one-storey transit shed, also set back about twenty feet from the ship's side, in front of which are six movable cranes of the following capacity:—

One.....	5 tons.
One.....	2 tons.
Four.....	3,500 lbs.

The ship is boomed out twenty to thirty feet from the wharf to allow barges between the wharf and the ship. Cranes are here deemed to be indispensable although they do not pay. By their means, however, the ship unloads and loads out in seventy-two hours. The ship sorts to bill of lading, and is required to re-deliver on to teams of consignee or on the ground of the dock company when desired. In sorting to bill of lading the floors are marked with chalk and numbered according to the manifest, goods being sorted in blocks like warehouses. Behind the sheds the warehouses are three storeys high, and the cheese and butter pass through the transit shed into the cooling rooms of the warehouse by means of conveyers temporarily erected for that purpose. There is a continuous and rapid stream of cheese boxes leaving the ship and reaching cold storage without delay.

The method of handling the freight between the different storeys consists of five double groups of lifts or elevators with a capacity each of 1,500 lbs., and six cheese loaders with a capacity of ten to fifteen tons per hour. Through these warehouses 47,000 tons of Canadian cheese passed last year. The perishable freight, therefore, is immediately transhipped from the refrigerating holds of the steamers direct into the cold storage on the quay side. From the warehouse to Tooley street, the great produce market of London, two miles away, this cargo is loaded mechanically under cover into huge vans and carted to the market as the demands of the trade require. When visited, the Thomson liner *Latonia*, and the Allan liners *Parisian* and *Pomeranian* were berthed alongside these transit sheds. Everywhere the most scrupulous care and cleanliness is noticeable, and the quality and condition of produce here housed left nothing to be desired. This dock company also makes a specialty of lumber, and has large areas devoted to lumber ponds and stacking ground.

Millwall Docks.

Millwall Docks, situated on the north side of the river below the India Docks, has an area of $233\frac{1}{2}$ acres, of which thirty-six acres are water. Entrance to these docks is by a lock, 450 feet. Ships of greater length can, however, pass through at high tide when both gates are open. The company accommodates a special trade in grain and timber, for which purpose the docks are specially equipped.

The total water area of the London Docks is 640 acres; the land area, 1,660 acres; shed and warehouse floor space, 390 acres.

Cold storage at the shipside of 4,500,000 cubic feet.

X.—PORT ADMINISTRATION.

Authorities within the Port.

1. The Thames Conservancy.
2. The Trinity House.
3. The Watermen's Company.
4. The Corporation of London.

The authority of the Thames Conservancy begins 161 miles above London Bridge and extends to the sea. The bed and soil of the river below high-water mark of ordinary tides is (with the exception of certain Crown foreshores) vested in them.

Within its jurisdiction fall the following duties:—

River and channel maintenance.

Regulation of navigation.

Supervision of all explosives and petroleum.

The maintenance of all public moorings, the use of which are free to the ships.

The marking, watching and removal of wrecks and all obstructions from the channels (section 77 of the Thames Conservancy Act, 1894).

The dredging of the river for the improvement and maintenance of the navigation.

The prevention of pollution.

No jetty, embankment, pile mooring or any other work is allowed to be placed below high-water mark without the license of the conservators, and the payment of a consideration fixed by the assessor under section 116 of the Thames Conservancy Act, 1894, either by way of a sum in gross or an annual rental.

The Trinity House lights and buoys the river, licenses and regulates pilots, examines all persons who are qualifying to be dock masters in order to certify that they are competent to handle ships, and exacts a contribution of $2\frac{1}{2}$ per cent upon the earnings of all licensed pilots, which goes to a pilot fund. In addition to this, each pilot pays \$15 a year upon the renewal of his license.

The Trinity House also examines masters and mates of vessels and grants to them certificates which make the employment of qualified pilots in the district non-compulsory.

Pilotage is compulsory, with certain exceptions.

The Watermen's Company license the lightermen who navigate the river, and originated in the sixteenth century and held for four generations the monopoly of the navigation of the River Thames under various Acts and ordinances of the Crown.

SESSIONAL PAPER No. 21c

The Corporation of London is at once the sanitary, the police and the fire authority of the port. It safeguards the port from entrance, by way of the river, of infection and disease, brought in either by persons or goods or in the form of unsound food.

Through the Metropolitan Police Force the river is patrolled and crime detected and suppressed, who also enforce the Acts and by-laws of the Conservators.

The City Fire Brigade operates and maintains the necessary fire stations and fire boats on the river, for which purpose the Thames is considered as a London thoroughfare.

XI.—PORT CHARGES.

Charges against the Ship.

1. Tonnage dues levied by and paid to the Thames Conservancy, devoted largely to the maintenance of the channel—

2 cents per net registered ton, coastwise vessels.

3 cents per net registered ton, all other vessels.

These dues are levied on all vessels entering or leaving the port with cargo, so that a vessel going to and from the port with cargo pays twice.

2. Dock dues, levied by the different dock companies on vessels entering the docks with cargo, vary from 6 cents to 36 cents per net registered ton.

3. Light dues, levied by the Trinity House—

On Vessels in Home Trade.

2 cents per net registered ton per voyage, on sailing.

3 cents per net registered ton per voyage, on steam.

Less 20 per cent per voyage for ten voyages if in home trade all the time. Subsequent voyages in same year free.

On Vessels in Foreign Trade.

4½ cents per net registered ton per voyage, on sailing.

5½ cents per net registered ton per voyage, on steam.

Less 20 per cent per voyage for first six voyages within year. Subsequent voyages in same year free.

4. Pilotage rates—

About 6 cents a ton in and out.

5. Rent after expiration of privilege allowed under respective rates of dock dues—

2 cents per ton per week.

Bona fide lighters or craft used in discharging or receiving ballast or goods pay no dock charges.

Charges against the Goods.

Levied by the dock companies, and paid by the merchant:—

'On every article of goods, wares or merchandise brought into and landed or deposited within, delivered to land conveyance from the docks within their jurisdiction, always excepting goods discharged or received overside from vessels to or from barges.'

1. Wharfage rate (includes receiving from ship and delivery to land conveyance)—

60 cents per ton on sand, lead, &c., to

96 per ton on bismuth, ore, &c., and upwards, according to tariff.

21c—3½

7-8 EDWARD VII., A. 1908

2. Landing rate (includes landing or receiving by land, wharfage, weighing, loading from quay to land conveyance)—

60 cents per ton to \$1.50 per ton.

Consolidated rate—

From \$1.36 per ton (includes landing or receiving by land, wharfage, weighing or gauging, coopering or mending, piling on the quay, six weeks' rent, from date of ship breaking bulk, first landing from craft or first receipt from land carriage, delivery to land or water conveyance). Additional services if required.

Goods or ballast to or from ships entering or leaving the docks in lighter are exempt from dock dues.

Measurement rates are given in a tariff issued from time to time.

The lighterage rates for conveying goods in barges to and from any places on the river between the Albert Docks and the London Bridge vary from 21 to 25 cents per ton. Beyond the above limits the rate is 37 to 50 cents per ton, and this rate does not include the labour for unloading and loading. These charges are paid by the owner of the goods, and cover the cost of conveyance only, transport by water being much cheaper than by railway or vehicle.

XII.—FINANCIAL SITUATION.

The capital invested in the port of London may be stated to be as follows:—

	\$
Riverside quays.....	65,000,000
Docks.....	120,000,000
River development.....	1,700,000
	<hr/>
	\$ 186,700,000

THE PORT OF GLASGOW.

I.—INTRODUCTION.

In the year 1773 Glasgow was an unimportant town, having less than 30,000 inhabitants. There was no harbour, the River Clyde being, in places, from 15 to 18 inches deep, and with only a "sensible" tide opposite the town. As far down as 12 miles below Glasgow, the river was fordable.

The River Clyde is now one of the great navigable highways of the world, 22 feet deep at low tide and 33 at high tide, and its construction is considered a triumph of engineering skill. The creation of this inland waterway, with the resulting commercial and manufacturing establishments, is certainly a most notable achievement.

It has been remarked in connection with the shipbuilding and manufacturing development of this part of Scotland that "navigation facilities, mineral resources, geographical situation, and Scotch grit have been the chief causes."

Glasgow, besides being now the first commercial city in Scotland, is one of the important ports of the United Kingdom, and has a population, including suburbs, of 800,000.

It was the success of the improvements on the Clyde which prompted the improvement of the River St. Lawrence Ship Channel to Montreal, which now, as regards size and navigability, so far surpasses its model.

The first dredging machinery used on the St. Lawrence was designed and manufactured on the Clyde.

SESSIONAL PAPER No. 21c

The authority which has accomplished so much is the Clyde Navigation, the Trustees of which combine all the functions with respect to the river and harbour, viz. :—

Docks, construction and administration.

Pilotage.

Aids to navigation.

Ship channel improvements.

Their mottoes are, "Every consideration for the success of the Port," and "No axes to grind."

It appears, unquestionably, that their policy is one of success.

II.—OCEAN BUSINESS.

Classes of Trade.

The district, of which Glasgow is the centre, is one of the most important in the United Kingdom for coal, iron, shipbuilding, machinery, and manufacturing generally. There is, therefore, a great variety of traffic in the port.

Beside the extensive river, passenger, and market business, there is the large channel and coasting traffic, the coal and ore trade, and the very extensive overseas colonial and foreign general commerce.

The harbour space occupied is approximately indicative of the business of the port :—

50 per cent regular lines.

24 " general and occasional.

17 " coal and ore trades.

9 " timber, cattle, fitting out, &c.

Types of Vessels.

One of the two largest and fastest ships in the world was constructed and fitted out in Glasgow, the Cunarder *Lusitania*, and sailed down the Clyde, drawing 29½ feet. Battleships and men-of-war of all classes are built on the Clyde. Several noted shipbuilding firms have lately removed there from England, in view of situation, cheap materials, municipal taxation, and especially on account of the skilled and reliable labour market.

The merchant vessels which frequent the port are not of the fast passenger and mails class, but more of the passengers and freight type. The Allan Line have within the last year established a service between Montreal and Glasgow of new, fairly large vessels, suitable for passengers and express freight, which is proving very successful.

The Donaldson Line, of Glasgow, also does a very large Canadian trade, carried by a fine and steadily improving fleet of freight ships having moderate passenger accommodation.

Warehousing and Stevedoring.

Warehousing is left to private enterprise.

The loading and unloading of vessels is done by the shipping firms, or by master stevedores, in both cases under license by the Trustees.

Tonnage.

The number and tonnage of vessels using the harbour of Glasgow for 1906-07 were as follows:—

Coasting.

	Number.	Tonnage.
Inwards.....	14,995	3,359,761
Outwards.....	14,320	2,156,566
Total, inwards and outwards...	29,315	5,516,327

Foreign.

Inwards.....	1,402	2,440,530
Outwards.....	1,998	3,584,350
Totals, inwards and outwards. .	3,400	6,024,880

Coasting and Foreign.

Inwards.....	16,397	5,800,291
Outwards.....	16,318	5,740,916
Totals.....	32,715	11,541,207

Foreign Trading to Canada.

Inwards.....	142	373,737
Outwards.....	122	346,269
Totals.....	264	720,006

Number of vessels entered the port:—

Under 1,000 net tons.....	16,301
1,000 to 6,000 “.....	1,435
6,000 and over “.....	4

The tonnage of goods imported and exported amounted to 9,566,211.

Trade Results.

The trade results to the country and to the district, of which Glasgow is the centre, owing to the creation and success of the port, are incalculable.

As a shipbuilding and manufacturing point, it appears to be one of the mainstays of the industry and commerce of the United Kingdom, the loss of which would be heavily felt in the increasing European competition.

SESSIONAL PAPER No. 21c

III.—FEATURES OF SUCCESS.

Early Development.—Glasgow is not one of the older ports. Its creation as a harbour and the development of its shipping are comparatively modern. The growth has been gradual, but steady, and much credit is due to the far-sighted policy which brought about, from practically nothing in 1775, a shipping of 1,500,000 tons in 1864, and 11,500,000 tons in 1907, inward and outward combined.

Ownership of Complete Harbour Area.—The Clyde Navigation Trustees have acquired, by grant and by purchase, the bed and banks of the river. They have purchased large tracts of land for past and future extensions. Their policy is to keep control of all features in connection with the river and harbour. There is no clash of authority or shifting of responsibility. There is only one authority.

Situation.—The success of Glasgow, as a port, is due in a large degree to her situation. The harbour is not on a line of a great trade route, but it is situated in the trade centre of Scotland.

Owing to its situation, its commerce must largely be the maritime trade of Scotland.

The harbour is situated in the heart of Glasgow. The Clyde navigation extends to, and includes, Port Glasgow, 18 miles down the river. Passing Greenock on to Gourock, 5 miles further down, the river opens into the Firth of Clyde, which makes easy navigation 60 miles to the Mull of Kintyre and there opens into the north channel of the Irish sea.

Mineral Wealth.—The district of Glasgow is noted for its mineral wealth of coal and iron, and it is known far and wide for its skilful and industrious workmen, and the mechanical genius of its engineers.

IV.—TYPES OF PORT BUSINESS.

(a) *Ocean Ship to Coasting Ship.*

A large share of the coasting trade of Scotland and Ireland centres in Glasgow, overseas commerce being received and distributed through this port. Large shed accommodation is therefore required, and facilities for unloading, and loading into all classes of vessels.

(b) *Ocean Ship to Railways.*

Glasgow not being on a trade route, but a centre of trade, there is not a large through railway business. As, however, all mines and industrial works are connected directly by railway, a very large proportion of the business of the port is handled in this way. The closest possible connection between the ships and the railway tracks is therefore necessary.

(c) *Ocean Ship to Warehouse by Carts.*

The third largest system of conveying the freight between the warehouses, stores, &c., and the ships, is by carts, and hauls are frequently quite long on account of the river intersecting the business portion of the city.

(d) and (e) Lighters or canal barges are not the rule, and most of the goods is discharged directly on to the quay.

The facilities for the handling of these types of business have been planned with care, and in the newest dock, unique appliances of a very successful and economic design were seen.

V.—PORT TYPES.

The harbour may be classed under two distinct subdivisions:—

(a) Riverside quays or jetties;

(b) Tidal basins.

Up to a certain stage of extension, riverside quays were the natural type. This system, however, not being adaptable for extension and concentration of business, docks had to be resorted to. The first dock, the Kingston Dock, was opened in 1867; the second, the Queen's Dock, was commenced in 1870 and completed in 1880. These are really tidal basins and not wet docks, as there are no gates or locks, and the water level fluctuates with the tide, the range of which is about 9 to 11 feet.

Two other docks or tidal basins have been constructed since the completion of the Queen's Dock, viz., the Prince's Dock and the Rothesay Dock. Another, the Yorkhill Basin, is now under construction.

The proportion of wharfage accommodation for vessels is approximately as follows:—

Riverside quays.....	45 per cent.
Tidal basins.....	55 "

A large proportion of the riverside quays are available and used for smaller vessels, ferries, and market boats.

In the basins, concentration is possible, and almost all wharf space is available for large steamships.

VI.—DRY DOCKS.

The harbour is provided with five graving docks. Three belong to the Clyde Navigation, and the other two are in connection with private shipbuilding yards.

The three Clyde Navigation dry docks vary from 551 to 880 feet in length, and the entrance depth at high water, springs, from 23 to 26½ feet.

No. 3 dock, which is 880 feet long, and has an entrance width of 83 feet, is really double, having a pair of inside gates, making one dock 460 feet and another 420 feet long.

This was constructed departmentally, and is in itself a tribute to the skill of the staff of the Trustees.

There are no floating docks in the port of Glasgow, but there are several patent slipways of from 200 to 800 feet long and draught of from 5 to 17 feet, owned privately.

VII.—APPROACH CHANNELS.

From Port Glasgow up the River Clyde, 18 miles to Glasgow, the approach channel is almost as much a canal as the Suez canal.

Regulation of the river banks and systematic dredging have accomplished the wonderful transformation of a small stream, from being almost beyond tide water and unsuitable for any sort of navigation, into a waterway for one of the important commercial ports of the world.

The average level of high water, spring tides, has remained practically unchanged up to Glasgow Bridge. Low water, however, has been lowered some 9 to 11 feet, which makes the present tidal range.

The first improvements were commenced in 1773, and consisted in works for contracting the channel and dredging, and in 1775 the depth had been increased from 1½ feet to 6½ feet.

The first steam dredging was commenced in 1824, and in 1830 vessels of 15-foot draught ascended safely to Glasgow.

SESSIONAL PAPER No. 21c

Since 1844, from which date statistics are available, the number of cubic yards dredged, in the river and docks, has amounted to about 73,000,000 cubic yards.

The quantity removed during the last 10 years has averaged about 2,200,000 cubic yards per annum.

In the River St. Lawrence ship channel, since 1851, the total amount dredged has been about 54,000,000 cubic yards, and the average for the last 10 years has been nearly 3,000,000 yards per annum.

The depth of water up to Glasgow harbour is now some 22 feet at low water, ordinary spring tides, and during extremely low tides about 2 feet less. At high tide, springs, the depth is about 33 feet.

Large vessels always navigate with the tide, and in sailing from Glasgow start about two hours before high tide, and reach deep water a couple of hours after high water.

The width of the channel, which means the whole river for about 10 miles, is from 400 feet to 550 feet, the curves being all easy.

Artificial navigation extends for about 4 miles beyond the Clyde Trustees' limits, from Port Glasgow to Greenock. This is under the Clyde Lighthouse Trustees, including the lighting and buoying of that portion of the river.

The lighting and buoying of the river cannot be compared with the St. Lawrence either in regard to the number or character of these aids to navigation.

The lighthouses are small, not uniform, the buildings neither of lasting construction nor on permanent foundations.

The buoys, of almost every known shape, make good day marks, but the lighting is modest as compared with the splendid system now existing on the St. Lawrence.

The bottom of the river, except in one place, is soft, and nothing is thought of a vessel, if delayed, resting on the ground for a few hours at low tide.

Eternal vigilant watching and dredging are required, owing to the constant silting going on. Sweeping is not carried on, the depth being examined by soundings only.

As compared with the Clyde, the River St. Lawrence is magnificent. As a navigable channel, possibility of further enlargement, maintenance, lighting and buoying; and of reaching inland not only to a trade centre at Montreal, but on the great North American trade route to the North-west, both by water and rail; the River St. Lawrence ship channel is unique in the world.

VIII.—ACCOMMODATION FOR VESSELS.

The total length of quay front in Glasgow harbour is about 10 miles.

About 50 per cent of this is devoted to the trans-oceanic trade, about 20 per cent to the coal and mineral traffic, and the remainder to general, coasting and river services.

At least 40 ocean ships may be accommodated with berths at one time, with shed accommodation.

For the mineral and coal traffic there are about 20 berths available.

The length of the main part of the harbour is about $1\frac{1}{2}$ miles, and the greatest width at the docks, about $\frac{1}{2}$ mile; all convenient to the business part of the city.

The widths of the piers vary from 200 to 250 feet, and the widths of the basins from 200 to 300 feet.

IX.—PORT EQUIPMENT.

Sheds.—Modern sheds are the rule in Glasgow harbour. The usual position is from 15 to 20 feet back from the edge of the quay.

7-8 EDWARD VII., A. 1908

The type of sheds is both single and double storey. They are from 70 to 75 feet wide, the combined length being nearly $5\frac{1}{2}$ miles and the total floor area nearly 50 acres.

The appliances for exchanging cargo between the upper and lower floors, are chutes of a specially designed type, and the wharf cranes. Except in special cases for storage, the upper floors are only used for inward cargo which can conveniently be descended in the chutes. Hatches, adaptable to the cranes, are also available for heavy packages.

Cranes.—Three types are in use, steam, hydraulic and electric. All the newer cranes are electric.

In all, there are over 100 cranes in the port, besides several shore cranes with a capacity of up to 150 tons.

The equipment of the new Rothesay Dock is of especial interest. The electric power generating station, from the boilers to the large engines directly coupled to the generators of a combined capacity of 3,500 k., is of the latest design and a model of construction.

Electric cranes, capstans, turntables, coal hoists, and lighting, all of the latest patterns for the services they are intended, are installed, and all supplied with power from the generating station.

Harbour Railways.—All the principal docks are connected by rail with the various railway terminals.

The discharging and loading of ships is done under license from the Trustees, by master porters. They may be either the shipowners or stevedores, or principal consignees. Packages discharged are sorted by this authority, as received from the ship's slings, and there is a great relief in the obtaining and removing of the goods.

Among some of the regular lines, it is the practice to unload at one berth and then remove to another berth to load. The disadvantage is that loading and discharging cannot, in that case, be done simultaneously.

X.—PORT ADMINISTRATION.

Up to the year 1825, the magistrates and the Town Council of Glasgow were the River and Harbour Authority. The first representation of the shipping and trade interests were added to the Trustees in that year.

At various times changes have been made in the representation until now the number of Trustees is 42, composed of representatives of the city and of the various municipalities adjoining the port, of the Chamber of Commerce, of the trades and of the shipping.

This is now the authority having full and complete powers and jurisdiction over the port and the river, down to Port Glasgow.

With such exclusive authority a very full and complete organization is possible, with an efficient staff and plant for the proper carrying out of the administration and construction of the port and its facilities.

All of the dredging and most of the construction work is carried on departmentally under the skilled engineers and trained officers of the Trustees.

The Trustees have borrowing power, by Act of Parliament, as well as authority for the levying of dues on vessels and goods, to pay for the cost and maintenance of the works, equipment, improvements and supervision.

Pilotage is compulsory between the Tail of the Bank, near Greenock, and Glasgow, a distance of about 22 miles. There are 26 Glasgow pilots for the outward voyage and 20 Greenock pilots for the inward trip up the river.

SESSIONAL PAPER No. 21c

XI.—PORT CHARGES.

In the port of Glasgow, 25 per cent of the revenue is derived from vessels and the remaining from cargo and other sources.

Tonnage Dues.

Vessels, except from the United Kingdom, per registered ton:—

Inwards.....	0 08 cents.
Outwards.....	0 08 “

Rates on Goods, per ton.

Iron ore.....	0 06
Stone, &c.....	0 08
Bunker coal, grain, &c.....	0 24½
Timber, &c.....	0 30
Castings, &c.....	0 37
Cotton, forgings, machinery, coal products, &c...	0 49

Rates for Cranes.

Wharf cranes, per day of 12 hours	4 87
Large cranes, under 70 tons, per ton.....	1 10
Over 70 tons.....	1 47

Rates for Quay Rent on Goods beyond Authorized Time of 48 hours after Discharge.

For first 24 hours.....	0 59 per hour.
For every subsequent hour.....	1 22 “

Rental of Sheds.

This is included in the above rates.

Pilotage.

From Greenock or Tail of Bank to Glasgow, or <i>vice versa</i> , 22 miles, for vessels drawing 15 feet or upwards, per foot of draught.....	1 45
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Railways.

The handling of railway traffic being operated by the railway companies, the rates are included in the freight rates.

XII.—THE FINANCIAL SITUATION.

The capital expenditure on the river improvements, the harbour, plant, vessels, sheds and equipment approximates to date.	\$44,000,000 00
The expenditure, including interest, maintenance and management for 1906-7, approximate...	2,500,000 00
The capital expenditure for new works, equipment, plant, &c., 1906-7, amounted approximately to.....	1,800,000 00
Making an expenditure for the year of.....	\$4,300,000 00

7-8 EDWARD VII., A. 1908

The revenue from all sources for 1906-7 amounted as follows:—

Tonnage dues on vessels.....	\$ 675,000 00
Dues on goods.....	1,435,000 00
Wharf and coaling and mineral cranes.....	260,000 00
Miscellaneous.....	370,000 00
	<hr/>
	\$ 2,740,000 00

XIII.—PORT DESIGN AND CONSTRUCTION.

Design.—The design of the harbour has in view the bringing of ocean shipping into the industrial centre of Scotland. This required the construction of a ship canal or channel, through not only soft material but a ledge of rock.

The river being very narrow, land had to be acquired and basins excavated for the making of docks, which were not enclosed by gates owing to the range of the tide being only some 10 feet.

The cost of dredging and plant and river improvements, apart from the harbour proper, represents a cost of about \$20,000,000.

The design is not symmetrical, and there is no special characteristic feature, except the concentration of the general shipping business as near to the centre of the city as possible.

Construction.—Most of the construction work is carried out departmentally, and it reflects very great credit on the distinguished engineers who have designed and directed the works.

Several novel features of foundations add character and permanence to the construction.

The dry dock No. 3 is a splendid specimen of engineering skill and construction.

The new Rothesay Dock, and its equipment, is a model of up-to-date accommodation for the coal and ore traffic.

Provision for the future.—There is no reason why the river cannot be made and maintained to any reasonable increased depth. The Trustees have also had the foresight to purchase land in advance for future dock development.

XIV.—GENERAL IMPRESSIONS.

The port, from which Montreal has to a great extent been modelled, is of special interest.

Without extensive river improvements, there could have been no port. The enterprise and sound judgment of some of the most talented business men of the times, have resulted in splendid success.

Although of great benefit to the commerce of Great Britain, the value of the port to Scotland, and to the Glasgow district, is very great. The shipbuilding industry is itself of immense benefit to the British flag.

The lessons for Montreal are not ended. The growth of the industries in the vicinity of Glasgow, with the progress of development of the port, and the sound principles and energy of the people, are of the greatest possible encouragement.

SESSIONAL PAPER No. 21c

PORT OF MANCHESTER.

I.—INTRODUCTION.

Manchester, with her population of 900,000 people and her prestige as the centre of the great textile industry of Great Britain, long felt the need of an open waterway to the sea. Although her distance from the sea did not extend 60 miles, her immense business felt the strain of competitive conditions imposed by the transfer charges through the port of Liverpool and the rail haul from that point. The conception of passing by the port of Liverpool and digging out a canal 35½ miles long with a bottom width varying from 120 to 180 feet, giving a depth of 26 feet of water, soon to be completed to 28 feet throughout its entire length, was indeed a bold conception involving far-sighted business acumen, faith in the future, and enormous sacrifice.

II.—OCEAN BUSINESS.

Manchester has direct ocean trade with Canada, largely due to the enterprise of Sir Christopher Furness and a group of influential business men associated with him. Grain, timber, cattle, produce, and fruit find a market of nearly 15 millions within a radius of 100 miles, and of 8,726,000 within a radius of 50 miles. She has also direct lines putting her in touch with the principal American ports, including Boston, New York, Philadelphia, New Orleans, Galveston, Savannah, Mobile. She is the first fruit port in the Kingdom, and her proximity to Sheffield, Birmingham, and other large manufacturing centres, provide the output for regular return cargoes.

Regular lines run to Canada, United States ports, as well as South America, Australia, Bombay, Persian Gulf, Alexandria, Norway, Denmark, Russia.

III.—FEATURES OF SUCCESS.

It was not until the year 1885 that the undertaking was determined. In that year, by Act of Parliament, the Manchester Ship Canal Company was formed with a capital providing an expenditure of \$50,000,000. This capital, however, proved inadequate for completion and full equipment of the canal and the development of the docks, and \$15,000,000 for this purpose was borrowed from the City of Manchester in 1891, and \$10,000,000 more in 1893, one of the conditions being that the Corporation of Manchester be given the right of appointing a majority of the Board of Directors of the Canal Company while the loan lasted.

IV.—TYPES OF PORT BUSINESS.

(b) *Ocean Ship to Railways Direct.*

All the piers are equipped with single and double rails at the ship side, affording ample facilities for the handling of cargoes direct.

(c) *Ocean Ship to Warehouse by Vehicle.*

Under the control of the port are innumerable warehouses to which cargo is brought by means of railway cars and by horse vehicle.

(d) *Ocean Ship to Warehouse by Lighter.*

Considerable portion of the port's business is transacted by means of "pontoons" which moor alongside the ship at her berth and permit the discharging of cargo simultaneously to the quay and overside on to the pontoon. The pontoon can be towed anywhere, and affords additional storage and effects despatch.

V.—PORT TYPES.

The canal itself is tidal for a distance of 21 miles, and there are five systems of locks, the largest of which (at the entrance at Eastham) is 600 feet long and 80 feet wide. The other large locks are 600 feet long and 65 feet wide. The smaller locks are 350 feet long by 45 feet. This canal is available for vessels as large as 550 feet by 62 feet wide, and drawing 26 feet of water. Up to the present time, however, the largest ship using the canal has been 500 feet in length with a tonnage of 12,000 tons. There is a rise of 58 feet 6 inches from the mouth of the canal to Manchester.

VI.—DRY DOCKS.

Two graving docks operated by an independent company, called the "Manchester Dry Docks Company," are also within the Dock Estate.

VII.—APPROACH CHANNEL.

All shipping trading to Manchester passes up the Mersey past Liverpool to Eastham, where is situated the entrance to the Manchester Ship Canal.

In the first section of the canal, viz., from Eastham to Latchford, a distance of 21 miles, the increased depth to 28 feet as named above has been obtained by raising the level of the water in the canal 2 feet.

From Latchford to Manchester the process of obtaining the depth of 28 feet, including the Manchester Docks, by dredging is nearing completion. There is only a small length in the docks to be dredged, and in a few months' time there will be a depth of 28 feet both throughout the canal and in the various basins of the large docks at Manchester.

VIII.—ACCOMMODATION FOR VESSELS.

The Manchester docks extend over an area of about 400 acres, within which is included a water space of 120 acres, a quay length of $6\frac{1}{2}$ miles, and a quayage area of 286 acres.

Twenty-three miles below Manchester, at Runcorn, are further docks belonging to the company, covering an area of 70 acres, of which 15 are water.

As the entire harbour development of Manchester has been carried out since 1890, and in which the experience of other ports has been widely availed of, it stands almost unrivalled as a collecting and distributing point. For this reason the length and width of the docks, the floor area of its transit accommodation, and the nature of its equipment are particularly interesting.

The dimensions of the docks, of which there are nine, are as follows:—

	Feet.	Feet.
No. 1.....	700	by 120
No. 2.....	600	" 150
No. 3.....	600	" 150
No. 4.....	560	" 150
No. 5 (partially-constructed).....	980	" 750
No. 6.....	850	" 225
No. 7.....	1,160	" 225
No. 8.....	1,340	" 250
No. 9.....	2,700	" 250

and the principal ones of these are equipped with transit sheds five storeys high.

IX.—PORT EQUIPMENT.

The sheds are two, three, and four storeys high: the floors and roof are paved with asphalt; the roof, being planned to afford an extra storey, is flat. The height of the ceiling of the bottom floor is 16 feet 6 inches and the other floors 9 feet 6 inches.

Vehicular traffic is not generally done within the shed, but when space is available, with the permission of the Dock Authority, vehicles are allowed inside at stated intervals. When the shed, however, is full of cargo the vehicles remain outside and the cargo is trucked to them. On the inner side of the newer sheds is an overhang which provides protection for teams and cars alongside in bad weather.

The means of communication between the floors within the shed itself are by a system of electric jiggers, each of which raises the goods from the ground level to any of the floors and swings into any floor sufficiently far to allow the goods being deposited at the required spot from which they are trucked and sorted. There are fixed cranes at the ends of the sheds on the roof for lowering goods into cars or carts, and the roof is used for such cargoes as lumber, oil, cask freight, or anything that does not require cover. In the experience of the Dock Company it costs no more to put the goods on the upper floor or roof than it does on the first floor, and it takes no longer to discharge cargo whether placed on the roof or on the ground floor. The overhang platforms on the water and shore sides of the sheds extend 4 feet and are fitted on hinges to allow the crane slings free access to the different floors. The roof of these sheds is built to carry 30 cwt. per square yard.

The shed equipment of this port altogether consists of 37 transit sheds of which 13 are single-floor, 1 two-floor, 6 three-floor, 5 four-floor, and 12 five-floor or storeys in height. The latest types of sheds are all four storeys, including the flat roof, and are built of ferro concrete. By using this method of concrete construction, it was stated that three floors may be built for the price of two in any other method of fireproof construction.

Rails are laid in most cases two tracks deep between the shed and the water edge. This is repeated on the shore side of the shed, but in the earlier-built sheds the rails may be seen within the shed itself.

The crane equipment is—53 hydraulic, 65 steam, and 91 electric cranes with a swing of 16 to 40 feet and lifting powers of 1 to 10 tons, raising to a height above rail level of 59 feet. Pontoon sheers capable of dealing with weights up to 250 tons are also provided.

There are specially provided cold storage accommodation for beef, mutton, and special accommodation for bananas; a grain elevator, built after the Canadian fashion, with a capacity of 40,000 tons, is also within the Dock Estate. The rate at which grain may be discharged is 350 tons per hour or 12,500 bushels. This includes weighing, sacking, and loading into cars, carts, or barges. This capacity has been found to be inadequate and has been supplemented by pneumatic apparatus with a capacity of 7,000 bushels an hour.

The company also manages 13 warehouses seven storeys high of the most modern kind.

The warehouses operated by the company have railway lines on both sides and a floor space of 33,000 square yards.

The facilities for coaling ships is of the first order, one of these coaling stations, on the bank of the canal at Partington, being equipped with six hydraulic tips capable of loading 160 tons an hour each.

Cold storage accommodation in close proximity to the docks provides for 200,000 carcasses of meat, and at the dock side with direct railway communication 175,000 carcasses more.

The Port Authority is also vested with the powers of a railway company by statute, and own and operate altogether 132 miles of railway, 60 locomotives, and 1,500 cars. No railway company enters the Dock Estate; all are connected just outside with the Ship Canal Company's rails. The rail business on the Dock Estate is therefore operated by the Ship Canal Company, who receive for their service a portion of the freight rate charged by the different railways. The siding accommodation provides for 9,000 cars, and by this wise provision, rapid and efficient rail communication is assured over all the important British railways to every town in the Kingdom. The railway rates between Manchester and the different important trade centres reached thereby are arranged mutually between the railways and the Canal Company so as to attract business to the port.

Ships are loaded and unloaded by the employees of the Dock Company.

Manchester has also a waterway connection with the canal system of the country.

The ship's responsibility ceases as soon as the goods are out of the ship, and a penalty is charged on goods remaining on the quays or in the transit sheds longer than 72 hours.

Fire and Police Protection.

A very complete system of water patrol and land brigade organization exists, and is kept on an efficient basis.

X.—PORT ADMINISTRATION.

The Manchester Ship Canal Board consists of 21 directors, 11 being appointed by the Corporation of Manchester. The chairman, however, is appointed by the directors elected by the shareholders. In 1904 the company succeeded in having the interest on the \$25,000,000 borrowed from the corporation reduced from 4½ to 3½ per cent, that being the actual cost of the loan to the corporation. The amending Act of 1904 provides that for all time to come the corporation of the city of Manchester shall have the majority of the directors on the company's Board, and the \$25,000,000 loan was made irredeemable and incapable of transfer.

The rates and charges are fixed by a committee, the majority of whom are directors appointed by the shareholders. The chairman, who devotes his whole time to the affairs of the company, receives \$15,000 a year, and \$10,000 more is divided between the 20 other directors.

The company performs the conservancy duties over the canal area. The conservancy authority over the tidal portion of the water approach to Manchester is divided between the Mersey Conservancy Commissioners, whose authority is required for any contemplated work affecting the river, the Mersey Docks and Harbour Board, the Upper Mersey Commissioners, and the Manchester Ship Canal Company.

Pilotage in the canal is not compulsory. All pilots, however, operating within the port of Manchester, which includes the Manchester Ship Canal, are licensed by the company.

XI.—PORT CHARGES.

Ship dues are paid by vessels entering the ship canal, and are applied under three different heads according as the ship trades with section A, B, or C, into which the "Harbour and Port of Manchester" is divided.

They are further classified according to point of departure and length of voyage, and range from 27 cents per net registered ton.

Only half the specified rates are charged provided certain conditions are complied with, so that the average charge does not exceed 12 cents.

SESSIONAL PAPER No. 21c

Other exceptions and variations are explained fully in the tariff issued from time to time.

A rental of 2 cents per net registered ton per week is charged after the lapse of allotted loading or unloading time prescribed by law.

Towage is also under the company's jurisdiction, and the charges are therefore regulated by tariff.

The canal company undertake to discharge or load the ships with their own men at so much a ton, according to a specially prepared rate sheet.

The company also loads and discharge the ships with their own men, and charge the shipowner therefor the actual cost of labour and superintendence, office expenses and material, and 10 per cent and $2\frac{1}{2}$ per cent premium to cover liability for accident and losses.

The shipowners may requisition services of men at cost, plus 10 per cent, and work them under their own control, or pay $12\frac{1}{2}$ per cent and have the work done under the canal company's foremen.

Cranes are charged for under a tariff at so much per hour.

A maximum toll is made of 25 cents per passenger.

Port Charges on the Goods, payable by the Owners.

Tolls and wharfage charges are made under a classified tariff, and are levied against the goods whether they pass over the quays or not.

XII.—FINANCIAL SITUATION.

The revenue of the port is raised from charges on the ship and charges on the goods, ship dues being levied according to tariff, the maximum of which reaches 35 cents per net registered ton. The company does not impose the maximum. The actual charges prevailing vary between 2 and 12 cents per net registered ton. These dues are for the use of the ship canal. All vessels entering have, in addition to the Manchester charges, to pay to the Mersey Docks and Harbour Board dues for conservancy purposes.

XIII.—PORT DESIGN AND CONSTRUCTION.

Turning a racecourse into the most modern dock in existence does not at first sight seem an attractive proposition, yet this is what has been done, and done so well and so thoroughly that a more or less detail description cannot fail to be of interest.

DESCRIPTION OF NO. "9" DOCK, MANCHESTER, ENGLAND.

The most notable example of Fireproof Construction in England. Quay walls built on novel principle.

No. 9 dock, Manchester, owned by the Manchester Ship Canal Company, is considered the most notable example of fireproof construction in England. The transit sheds are constructed throughout of reinforced concrete, and the enclosed areas (transit sheds) have been divided by modern methods to reduce the danger from serious fire.

Dock No. 9 has been constructed on a portion of the site formerly occupied by the Manchester racecourse, and purchased by the Manchester Ship Canal Company in 1902. The subsoil consists of alluvial deposit—sand, gravel, and boulder clay—overlying red sandstone rock. The surface of the ground averaged

about 2 feet below water level of the docks. The new dock has, therefore, been formed partly by excavation, partly by filling, no soil requiring to be moved from the immediate neighbourhood of the dock.

Except for a short length at the westerly end, the rock was at too great a depth to be reached by the foundations. The foundations of the quay wall are carried down to the boulder clay, the foundations for the sheds down to the gravel beds lying above the clay. The maximum load on foundations is 3 tons per square foot. The length of the new dock is 2,700 feet on the centre line; width, 250 feet; depth of water, 28 feet; area of water in dock, $15\frac{1}{2}$ acres; area of quays, roads, railways, &c., round the dock, $128\frac{1}{2}$ acres.

The quay walls have been constructed on a novel principle, the quay being practically a long viaduct carried on arches. This was adopted—

1. As more economical under the attending local circumstances than a solid wall;

2. As it puts a vertical load on the foundations only, thus avoiding the risk of forward movement; and

3. As the water flowing between the piers affords more comfortable berthage for large vessels and reduces ranging.

The piers and arches are entirely constructed of 6.2.1 concrete formed of Portland cement and ballast obtained from the excavations, stone plums being allowed within 9 inches of the face work in the piers only.

A granite fender course, projecting $4\frac{1}{2}$ inches over the face line of the piers, prevents vessels from rubbing their bilges against these latter.

The easterly end of the dock is a solid concrete wall 20 feet thick, the viaduct type of wall being inadmissible here owing to the heavy weight which will be put on the grain elevator foundations which are immediately behind this length of wall.

The face of the concrete quay wall above the fender course is composed of blue brickwork set in cement of an average thickness of $11\frac{1}{2}$ inches.

The coping of the dock is of Norwegian granite, 3 feet wide by 2 feet deep. Cast iron bollards of the hook type have been fixed in the coping every 75 feet.

Behind the quay wall is a subway for hydraulic pressure, fresh-water mains, and electric cables, and behind this, for the whole length of the southerly wall and for 900 feet of the northerly quay, is a subway 9 feet 9 inches wide by 6 feet 5 inches high, for belts to carry grain direct from the ship to the grain elevator at the east end of the dock. Inlets for the grain are provided every 12 feet 6 inches, centres and centres, and it is intended to fix four belts in each subway.

The quays are provided with a crane road and two running roads, and are paved to a width of 37 feet from the quay wall with Haslingden setts.

On the northerly side of the dock is an open quay for timber and other rough cargoes.

The easterly end of the dock will be occupied by a grain elevator with a capacity of 40,000 tons, the foundations of which are already constructed. The designs of the elevator have been worked out by the John S. Metcalf Co. of Chicago.

On the southerly side of the dock five transit sheds have been erected, four 425 feet and one 450 feet in length. The total length of the sheds is 2,150 feet and the width 110 feet, each shed having four floors, including the flat roof. The area of the floor space in the sheds is about 22 acres.

The sheds are divided by a roadway 25 feet wide, and are connected by gangways between each floor. In addition, the sheds have a fire resisting partition with steel sliding doors down the middle. The height of the ground floor, 16 feet 6 inches; the upper floor 10 feet 6 inches, floor to floor. The front of the shed is closed with steel sliding doors, the back of each shed being provided with five loading-out teagles fitted with electric hoists, and all the windows are glazed with wire glass ("Mississippi" process), manufactured by Pilkington Bros., Ltd., St. Helens, Lancashire.

SESSIONAL PAPER No. 21c

The loading-out teagles are carried on a verandah, enabling trucks to be loaded or unloaded under shelter from the weather.

The sheds have been constructed of reinforced concrete and were completed in 18 months; the strength of floors for a working load of 3,000 pounds per square yard tested to 4,500 pounds.

The docks and sheds are equipped with electric machinery, electric cranes being used on the quay side with jibs capable of lifting 3,000 pound loads from a vessel's hold to all the floors.

At the corner of each roof a 3,000 pound fixed electric crane is provided, and each shed has an electric hoist fitted in each of the teagles. The floors of the sheds are covered with asphalt.

The total cost of the dock was about \$2,500,000.

The engineer was W. Henry Hunter; the contractors were Henry Lovatt, Ltd., Wolverhampton and London, for the docks, and Henry Lovatt, Ltd., Wolverhampton, and M. Victor Brueder, of Paris, for the sheds.

XIV.—GENERAL IMPRESSIONS.

Directly following the development of the Manchester Ship Canal and the port itself, enterprising landowners saw the wonderful opportunity for attracting the investment of capital in industrial undertakings, with deep water access in addition to rail communication. The property of Sir Humphrey Trafford adjoining the canal was acquired by a real estate company, which has resold sites to the following firms:—

Morrison, Ingram & Co., Limited, sanitary engineers.
 Edmund Nuttall & Co., contractors.
 Sandars & Co., maltsters.
 J. W. Southern & Son, timber merchants, saw mill.
 Trafford Park Dwellings, Limited, cottages.
 James Gresham, engineer.
 W. T. Glover & Co., Limited, electrical engineers.
 Trafford Power and Light Supply, Limited, electric power and light.
 Morrell, Mills & Co., shipwrights.
 N. Kilvert & Sons, Limited, lard refiners.
 Liverpool Warehousing Co., Limited, warehouses.
 Manchester Brewery Co., Limited, brewers.
 Pickfords, Limited, carting agents.
 Leyland, Barlow & Co., engineers.
 Lancashire Dynamo and Motor Co., Ltd., dynamo manufacturers.
 R. Baxendell & Son, millers.
 Manchester and Liverpool District Banking Co., Limited.
 Manchester and County Bank, Limited.
 W. H. Bailey & Co., Limited, engineers.
 British Westinghouse Electric and Manufacturing Co., Limited.
 James B. Lloyd, chemical manufacturer.
 Hall & Pickles, iron merchants.
 Kirkpatrick Brothers, stone polishing.
 Trafford Park Steel Works Company, engineers.
 Thomas E. Russel, patent fireproof flooring.
 R. S. Dawson, packing case maker, saw mill.
 F. E. Gill, joiner and builder.
 Skipwith, Jones & Lomax, Limited, engineers.
 Isaac Bentley & Co., Limited, oil refiners.
 General Petroleum Co., Limited, oil importers.
 Homelight Oil Co., oil importers.

General Oil Storage Co., Limited, oil importers.
 Williams Deacons Bank, Limited.
 Co-operative Wholesale Society, Limited, bacon warehouses, &c.
 Manchester Ship Canal Co., storage warehouses.
 Redpath, Brown & Co., Limited, engineers.
 Acme Lathe and Products Co., Limited, engineers.
 H. Newsum, Sons & Co., Limited, timber merchants.
 Joseph Griggs & Co., Limited, timber merchants.
 The United Electric Car Co., Limited, tram car builders.
 Royce, Limited, dynamos.
 Baxendale & Co., lead pipe factory.
 Howard Conduit Co., Limited.
 William Higgins & Son, brickyard.
 Lancashire and Yorkshire Railway Co.
 London and North Western Railway Co.
 Cheshire Lines Committee.
 Illingworth, Ingham & Co., Limited, timber merchants, moulding mill.
 Cooke, Laidman & Leech, Limited, timber merchants.
 Imperial Lumber Co., Limited, of Toronto, timber importers.
 Hovis Bread-Flour Co., Limited.
 W. & R. Jacob & Co., Limited, biscuit manufacturers.
 T. Hulbert & Sons, millers.
 Liverpool Storage Company, Limited.
 E. D. Pochin.
 Key Engineering Co., Limited, conduits.
 Colley & Cureton, engineers.
 Trafford Park Enamelling Co.
 McKechnie Brothers.
 American Car and Foundry Co., railway cars.

This speaks more eloquently than words as to the policy of wise and courageous work in port development and its results.

PORT OF BRISTOL.

I.—INTRODUCTION.

Bristol's prestige as a port extends back more than a thousand years, and her merchant princes of to-day are proud to acknowledge that almost the first ocean trail blazed across the Atlantic started from the ancient city of Bristol, when John and Sebastian Cabot left its shores. It will be recalled that this trail led to the St. Lawrence River, and is still being used by the liners that ply between Canada and Bristol.

II.—OCEAN BUSINESS.

The principal imports from Canada, United States, Black Sea, Argentine, and East Indian ports are grain and barley, general merchandise, wood goods, flour, meal, provisions, oil, cocoa, wines, phosphates, ores, iron, fruit, leather, and rosin.

The exports are chiefly iron goods, machinery, tin plates, chemical products, railway wagons, coal, coke, salt, spar, and manufactured oils.

As a passenger port, on the completion of the Royal Edward Dock at Avonmouth, she will be able to land passengers in London within two hours of their arrival from the sea.

III.—FEATURES OF SUCCESS.

Bristol's development has been achieved at very considerable sacrifice and cost. As early as 1803 a new course for the river was deemed necessary. For this purpose, $2\frac{1}{2}$ miles of the Avon were converted into a floating harbour, at a cost of \$3,000,000, with a maximum depth of 23 feet. In turning the old course of the River Avon into a closed dock, a new bed had to be found for the river. This was done, and the old waterway became a floating harbour lined with wharves, &c., affording advantageous sites for industrial development.

The port of Bristol occupies a strategic trade point, which geographically places her in, perhaps, the most advantageous position of any port of the Kingdom. Trade routes leading to Canadian (and American) ports are shorter than from London or Liverpool, while at the same time the rail haul to the centre of the Birmingham District and South Wales is 35 miles nearer the former and 141 miles nearer the latter than Liverpool.

Within a radius of 100 miles there is a population of 9,500,000, and London is only two hours away. These splendid natural advantages are largely idle as yet, but the new dock extension at Avonmouth, which is not surpassed in design and construction by any in the Kingdom, will afford advantages which cannot fail to attract shipping and through traffic.

IV.—TYPES OF PORT BUSINESS.

(a) *Ocean Ship to Coasting Ship.*

A very large coastwise business is done to and from British and Continental ports, regular coasting lines being established for this purpose.

(b) *Ocean Ship to Railway direct.*

This handling method is developing more and more, and facilities are being increased to meet the demand.

(c) *Ocean Ship to Warehouse.*

A fair proportion of the port's business is handled in this way.

(d) *Ocean Ship to Warehouse by Lighter or Canal Barge.*

Bristol's connection by inland waterway with all important canal systems makes this a popular method of enhancing distribution.

V.—PORT TYPES.

The port consists of three different centres, the oldest of which is known as the City Docks, within the city itself, and approached by the River Avon. All three are systems of wet docks. Vessels 325 feet long with a maximum draft of 22 feet enter the Bristol City Docks, vessels with deeper draft being lightered in the Basin. These docks are considered reachable by any vessel drawing not more than 22 feet of water.

At these docks the depth of water on the sill is—

Mean spring tides.....	33 feet.
Mean neap tides.....	23 feet.

The length of entrance is 350 feet, and width 62 feet.

7-8 EDWARD VII., A. 1908

Portishead Docks, situated at the mouth of the Avon, have a water area of 12 acres, a quay length of 943 yards, and a shed area of 51,000 square yards. This dock is specially fitted to handle the grain and timber trade and wood goods. Twelve acres of specially equipped stacking ground for timber alongside these docks make the handling of timber rapid and economic. Five hundred and seventy-five standards of timber have been unloaded here inside of 40 hours.

Avonmouth Docks, seven miles from the city on the north bank of the river at its mouth, are the most important. Separated from the open sea by massive sea gates and lock entrances, these docks provide transhipping facilities for the largest ships, both passenger and freight.

The walls of the Royal Edward Dock have been built of concrete, lined with brick, and, with its granaries, two-storey concrete transit sheds, and their crane and conveyer equipment, together with an immense dry dock, will cost \$15,000,000.

VI.—DRY DOCKS.

One of the largest dry docks in England at Avonmouth, with an entrance of 100 feet wide and a clear length of 914 feet, is nearly completed.

The City Docks are equipped with a dry dock 319 feet in length, an entrance of 48 feet wide and with 11 feet 6 inches of water on the sill.

There are in addition two dry docks privately owned: one 540 feet, with an entrance 52 feet wide and 14 feet 6 inches depth of water on the sill; the other 300 feet long, 57 feet wide, and 12 feet 3 inches depth of water on the sill.

VII.—APPROACH CHANNEL.

The Bristol Channel is a broad clear waterway on the southwest coast of England, leading direct to the ocean. It is the estuary of the River Severn, and affords safe navigation right up to Kingroad, one mile from Avonmouth Docks, where ships of all sizes and at all stages of the tide can find good anchorage.

VIII.—ACCOMMODATION FOR SHIPS.

	Quay Length.	Water Area.	Shed Area.
	Yds.	Acres.	Sq. yds.
City Docks.....	4,898	83	66,230
Portishead.....	943	—	51,000
Avonmouth.....	3,277	49	150,000

This will give Bristol—

9,118 yards quay.

144 acres wet docks.

267,000 square yards shed area.

IX.—PORT EQUIPMENT.

Around the City Docks at intervals are placed single and double-storey sheds, the newest type of which being double-storey, flat roofed, with cranes on the roof. The shed accommodation around these docks has an area of about 20 acres, and are approached by railway service between the edge of the shed and the water.

SESSIONAL PAPER No. 21c

Net Area.			Length.	Width.	HEIGHT.	
					Ground Floor to under side of Joists.	Upper Floor to Ceiling or Tie Rods of Roof.
	Sq. ft.	Sq. yds.	Ft. ins.	Ft. ins.	Ft. ins.	Ft. ins.
Y shed.....	49,437	5,493	275 0	112 9	15 0	12 5
Z shed.....	32,778	3,642	200 0	93 0	15 0	12 5

They are equipped with electric cranes with a lifting capacity of 2 tons. Each has a flat roof upon which the cranes are erected, and on which any ordinary rough cargo can be temporarily stowed. Re-delivery from upper floors is chiefly effected by means of chutes, gantries being provided for heavy goods.

A grain elevator is also provided with a capacity of 58,000 quarters, and special warehouses have been built by the City for the reception of tobacco. These warehouses are the finest of their kind seen anywhere; one is built of stone, brick, cement mortar throughout; the other is built of reinforced concrete entirely.

The dimensions of these warehouses are:—

Net Area.		Length.	Width.	Height.
Sq. ft.	Sq. yds.	Ft. ins.	Ft. ins.	Ft. ins.
197,380	21,931	213 8	103 1	11 5 basement. 14 5 ground floor. 7 5 upper floor. 10 0 top floor.

The equipment of each consists of two electric goods lifts with a capacity of 35 cwts. each, a passenger lift, and a hydraulic press for packing purposes, and each has a nominal capacity for some 11,000 casks of tobacco.

The second one in course of construction and nearly completed will be similarly equipped.

In the first tobacco warehouse visited there was in operation a single rail man drive transporter electrically equipped, running overhead suspended from a beam, running the entire width of the ground floor and passing out over the driveway about 30 feet, enabling the taking of goods from the floor of the warehouse and delivering outside to trucks, or *vice versa*.

Hydraulic, electric, and steam cranes of different capacities line the walls of this City Dock development, and cold storage is also provided.

The grain elevator at Avonmouth has a capacity of 50,000 quarters, and is situated away from the dock, but is connected with it by an underground passage containing the conveyer belts, carrying the grain from the vessels discharging at the sheds.

Each double-story shed will have six movable cranes with a capacity of a ton and a half each.

Railways will completely surround the dock, leading to an extensive shunting yard for the sorting of freight.

Special fruit warehouses have been erected to take care of the West Indies banana trade. From nothing in 1901 this trade now keeps busy a regular line of steamers with a weekly cargo of 31,000 and a season's business of 1,625,000 bunches.

General warehousing facilities afford over 19,000,000 cubic feet of storage close to the docks.

7-8 EDWARD VII., A. 1908

The Severn Canal system connects Bristol inland with the waterways of Great Britain.

Railways within the Dock Estate are operated by the Dock Authority.

X.—PORT ADMINISTRATION.

The controlling authority of the port is vested in the Corporation of the city of Bristol, and the docks are all owned and managed by the Corporation, under a committee of 19 members elected annually.

The Corporation is also the authority for the lighting and buoying of the river and approaches.

Pilotage is compulsory, and is in the hands of a committee of the Corporation, to which shipowners and pilots are elected.

XI.—PORT CHARGES.

Charges against the Ship.

The charges against the ship consist of tonnage dues on vessels entering the port, and range from 25 to 26 cents per registered ton for vessels trading with foreign ports, including the Mediterranean Sea, to 10 to 18 cents per registered ton from other European ports.

Vessels using the transit sheds pay 2 cents per ton of cargo intended to be discharged additional, and in addition any vessel remaining in the docks longer than one lunar month pays 2 cents per registered ton per week for the first month, and 4 cents per registered ton for every week thereafter.

Charges against the Goods.

With the few exceptions pointed out in the tariff, dues on goods are payable according to the two following classifications:—

Class I.—All articles of foreign growth or importation direct from foreign or brought coastwise.

Class II.—All articles of British origin or manufacture brought coastwise.

And range from 2 cents per ton to \$1 per ton.

Outward rates as per tariff are separated into foreign and coastwise, and vary from 2 cents to 30 cents per ton.

The charges on the ship are payable on entry within the port; on goods inwards before the landing thereof, and on goods outward before the shipment.

XII.—FINANCIAL SITUATION.

The investment of capital in the development of the port by the Corporation amounts to \$27,500,000.

The revenue for the year ending 30th April, 1907, was \$1,170,000, of which \$315,000 was from tonnage dues on ship, \$175,000 from dues on goods from foreign ports, and \$60,000 from dues on goods from coastwise ports. The expense of working amounted to \$765,000, leaving \$405,000 to meet the interest charges.

XIV.—GENERAL IMPRESSIONS.

When the Royal Edward dock is opened early in 1908, special facilities will be offered to induce the large passenger lines to frequent the port, and it is expected that in the near future these facilities will recommend themselves to both railways and steamship companies.

SESSIONAL PAPER No. 21c

The fact that the Great Western, Midland, London and North Western, London and South Western Railways have direct access with the Bristol City Docks, while the Avonmouth Docks are in immediate communication with the Great Western and Midland Railways, ought to be the means of developing traffic arrangements for the handling of through business that will keep the new docks at Avonmouth busy, and Bristol will be in a position to take care of it economically and with despatch.

PORT OF CARDIFF.

I.—INTRODUCTION.

Cardiff, the great coal port of Wales, is situated at the head of the Bristol Channel on the eastern bank of the River Severn.

Population, 175,000.

II.—OCEAN BUSINESS.

In 1894	the number of vessels using the port was	9,907.
In 1904	“ “ “ “	8,483.
In 1894	the net tonnage was	4,428,436 tons.
In 1904	“ “ “ “	4,290,706 “

III.—FEATURES OF SUCCESS.

A commanding position on the open sea, harmony of control, enlightened management, together with her proximity to vast coal areas, have combined to make Cardiff the largest exporting port for Welsh coal in the Kingdom.

IV.—TYPES OF PORT BUSINESS.

The principal imports of Cardiff are iron ore, pig iron, timber and deals, pit wood, grain and flour, general merchandise, the total of which in 1906 amounted to 2,108,000 tons.

Her exports consist of coal and coke, patent fuel, iron and steel rails and general merchandise, of which she exported in 1906, in round figures, 11,000,000 tons.

V.—PORT TYPES.

The port of Cardiff is a wet-dock development exclusively, owing to the great range of tide prevailing in the Bristol Channel.

The depth of water in the different docks ranges from 13 to 32 feet, there being—

8,800 feet of	13 feet to 19 feet depth.
9,360 “	25 “
15,000 “	32 “ to 37 feet depth.

The length of entrance lock ranges from 152 to 850 feet, and the width of these locks varies from 36 to 90 feet. The depth of water on the lock sills at low water ranges from 2 feet to 15 feet 6 inches; at high water from 18 feet 9 inches to 32 feet.

VI.—DRY DOCKS.

Thirteen dry docks serve the business of the port, the largest of which is 600 by 60 feet wide, and the depth on the blocks at high water is 27 feet.

VII.—APPROACH CHANNELS.

As Cardiff is practically approachable from the open sea through the Bristol Channel, the length and width of the channel are practically unlimited. The depth, however, at the entrance channel leading to the docks at low water is only 2 feet, and the range of tide between high and low water is 36 feet.

The tide runs from $3\frac{1}{2}$ to 4 knots.

The river bed is sand and mud, which silts on the locks at the rate of $\frac{1}{4}$ inch each tide.

Dredging of the entrance channel is under the control of the Cardiff Railway Company and is constant.

VIII.—ACCOMMODATION FOR VESSELS.

The development of the harbour dates from 1839, and now has a water area of $161\frac{1}{4}$ acres, and a total length of quays of 35,630 feet or $6\frac{3}{4}$ miles.

In addition to the above-described dock development there are 24 acres of timber ponds with a depth varying from 6 to 8 feet.

IX.—PORT EQUIPMENT.

The port of Cardiff, tapping as it does the immense Welsh coal areas, has become practically an exporting port for coal, and there are 60 fixed and movable cranes specially built for the purpose of handling efficiently and economically this business. The cranes have a capacity of 350 tons an hour. Such is their efficiency that 6,700 tons have been loaded into a single steamer in 11 hours.

The method employed is a system evolved and patented by Messrs. Lewis and Hunter of Cardiff. Each car load of coal is automatically tipped into the cage carrying 10 tons. This cage is lifted bodily by the crane and lowered into the hold of the ship, where, by further mechanical contrivances the bottom of the cage, which is conical, slips down, and the weight of the coal goes out in four different directions, practically trimming itself in the hold. Through this method of handling, the coal does not undergo breaking up in the loading and preserves very largely its quality and form. The claim is made that this method of handling Welsh coal, as compared with other methods, saves at least one-third its efficiency as fuel.

Although Cardiff is now principally an exporting port, it is also the home headquarters of the London and North Western, Great Western, Midland, and Taft Railway Companies, all of which have access to the railway development on the docks consisting of 120 miles of track, the railway department of the Bute Docks Company operating 29 engines to take care of this dock traffic.

Cardiff, however, is planning to do a more extensive general business, and for this purpose certain transit sheds and warehouses have been provided alongside the docks. These transit sheds are of two types, single storey and double storey, are about forty feet away from the ship, with four lines of railway between the shed and the water, concrete floors and foundations, corrugated iron sides and roofs, with light structural iron trusses and skylights of glass; floor level 3 to 4 feet above the ground. Team traffic is served at the ends of the sheds only, no teams coming into the sheds. The double-storey sheds have wooden floors, the upper storey accommodating flour, lard, lumber, bacon, and fruit; openings in the floor every 20 feet in two rows for sliding down the cargo from the upper storey. Large hydraulic cranes on the water side between the shed and the ship for handling cargo from ship to shed and vice versa.

Loading of cargo from the upper storey was witnessed, and the only means used were ordinary wooden slips. Other handling devices on the quay consist of heavy hydraulic cranes and capstans for moving the cars.

SESSIONAL PAPER No. 21c

The Dock Company furnish their own light, their own hydraulic power, and have trackage accommodation for 20,000 cars at one time. There is a limited cold storage area with 125,000 cubic feet, and some accommodation for cattle and chilled beef.

Cardiff prepared itself to take on the cattle trade and develop it, building cattle lairs and chilled floors for meat, and tried it for three years without success. Canadian cattle were too young and not matured, and unsuitable for the British trade. Baltimore cattle were also tried, but without accomplishing the desired end, the reason being that Liverpool competition in dead meat was too severe.

Cardiff has a splendid communication with all the railways of Great Britain.

The ship's responsibility ceases when the goods pass the ship's rail. Ships are loaded and unloaded by cranes owned by the Cardiff Railway Company, and by stevedores under their employ.

In the case of pit wood, which is used for propping up the galleries in the coal mines, most of which comes from Sweden and France, in lengths of 6 to 12 feet and 3 to 6 inches through; this is discharged by labour employed either by consignee or shipowner under special agreement.

X.—PORT ADMINISTRATION.

The dock development has been the result of the investment of private money, the entire docks at Cardiff being under the control and management of the Bute Docks Company, being the property of the Cardiff Railway Company since 1879, in which the Marquis of Bute holds the controlling interest.

The lighting and buoying of the channel is carried out by the Cardiff Railway Company.

Pilotage is not compulsory, but is under the control of a separate board, consisting of representatives appointed by the Cardiff Corporation, the Cardiff Railway Company, Shipowners, Canal Company, and two other railways.

XI.—PORT CHARGES.

The charges against the ship consist of tonnage rates on all shipping varying from $1\frac{1}{2}$ cents to 18 cents per registered ton, according to the size of the vessel and the length of its voyage.

In addition to these tonnage rates payable on shipping, there is a further charge made for vessels remaining at the dock for a longer period than 14 days, at the rate per ton per week for the first seven days of 2 cents, for the second seven days of $1\frac{1}{2}$ cents, and for every week beyond the second week 6 cents.

The use of barges can be had at the rate of 8 cents per ton

Towage rates within the dock on vessels of 50 tons burthen to 2,000 tons burthen range from 90 cents in the first class to \$16.75 in the latter, and 90 cents for every additional 100 tons or part thereof.

Wharfage rates are levied against the goods and range from 6 cents to 60 cents per ton.

Terminal charge is made under a regular schedule of rates per ton. All coal, however, is moved free, the tariff charges being against general cargo only. The total rail rate is charged and collected by the railways, including the terminal rates, and the Railway Clearing House in London refunds the proportion to each.

XII.—FINANCIAL SITUATION.

The amount of money invested in the development of Cardiff Docks cannot be accurately ascertained, but the capital of the Cardiff Railway Company controlling these docks is \$35,000,000, and the Queen Alexandra Dock, which has lately been constructed by money specially borrowed, cost \$11,250,000.

PORT OF NEWCASTLE-ON-TYNE.

I.—INTRODUCTION.

“Bringing coals to Newcastle” has become a familiar proverb. In actual practice, however, *the coals have brought the business*; the huge coal areas extending for miles beneath the hills that slope to the river are responsible for the development of the port.

II.—OCEAN BUSINESS.

It is visited annually by 14,455 vessels, with a net registered tonnage of 11¼ million tons.

As a shipbuilding port it rivals Glasgow, and sends its products to all parts of the world, while as a port of call for coal supplies it is conveniently situated, with access to the North Sea.

III.—FEATURES OF SUCCESS.

The development of this river power, which had its beginning in the early fifties of last century, is particularly interesting. The administration of the port by the Corporation of the town of Newcastle, whose control over the River Tyne for centuries had retarded development, was the cause of a new authority being brought to life by Act of Parliament. From the 12th century the town of Newcastle was the sole authority of the port, and held its destiny in unbroken control until the year 1850. During these centuries, however, the Corporation failed to realize the possibilities that lay hid in the small, narrow tortuous reaches of the river. They were content to place on record as their policy the maintenance of the river in its natural condition, and felt convinced that their duty had been accomplished when they prevented it from getting worse. Their action during hundreds of years stands out in bold relief with what has been accomplished during the last half century under enlightened and continuous administration by the present Commission and their predecessors.

The depth of the river on the bar in 1723 was 7 feet at low water and 21 feet at high. In 1813, nearly a century later, the depth was recorded as 6 feet at low water, and a minimum depth in the fairway channel to Newcastle of 4 feet at lowest tide. The Corporation of Newcastle had, therefore, accomplished in 100 years the astounding work of lessening the minimum depth of the channel by several feet. This fact, and the energy of the people on the Clyde in developing their river by steam dredging, prompted the people of the Tyne to wake up, as an immediate consequence of which the present organization of the port came to life.

The largest class of vessel using the Tyne in 1850 did not exceed 400 tons register, and the problem that faced the new Commissioners 50 years ago was the task of laying down a design of river improvement that would permit the vast wealth of the neighbouring coal areas, long worked for little else than home use, to be made available for shipment to all parts of the world. They set themselves resolutely to the task, and worked out a scheme whereby the River Tyne has practically been turned from an insignificant shallow stream into a river of commanding importance among the waterways of Great Britain. To do this the river itself had to be widened, the enormous curves in it modified, the obnoxious points removed, and the banks retained by massive walls of masonry and timber wharves, the cutting of an entirely new channel and the formation of training walls to guide it. To protect the entrance of the river two long crescent-shaped masonry arms stretch themselves out into the North Sea, one of these piers being nearly a mile long, and the other considerably more than half a mile long, leaving an opening into the harbour between the two pierheads of 1,100 feet wide.

SESSIONAL PAPER No. 21c

Some idea of the enormous difficulty of building sea walls to withstand the violent storm and water pressure may be inferred from the fact that the foundation stones of these piers were laid in 1854, and the piers completed only in 1895, the total cost of this protective work at the mouth of the river alone amounting to \$7,500,000. The seaward end of the north pier has been entirely reconstructed since 1899.

Newcastle stands about midway between the mouth of the River Tyne and the inland limit of the Port Authority's jurisdiction, 19½ miles from the North Sea.

IV.—TYPES OF PORT BUSINESS.

Shipbuilding, coal, export, and a general cargo and timber business are all handled with the latest appliances.

V.—PORT TYPES.

There are no jetties or piers into the river. All the development is that of wet docks, riverside quays, and tiers of moorings or water berths similar to those in Hamburg and Antwerp, which provide water moorings for the vessels. As many as nine abreast were seen moored.

Each of these moorings consists of two floating cast-iron buoys so many feet apart according to the length of berth required, connected by means of mooring chains to screws let into the bed of the river. They are practically stationary and do not drag. The top portion or floating buoys, however, may be removed at will. Ample mooring accommodation is thus provided by the Commissioners for all vessels entering the river and requiring it.

In addition to the river development itself there are several wet docks or tidal basins, with an entrance from the Tyne.

Belonging to the Tyne Improvement Commission—

Albert Edward Dock, 22½ acres in extent, situated near the entrance of the river, and well equipped with steam and hydraulic cranes and a jetty, provided with warehouse and other storage accommodation for all kinds of merchandise.

Northumberland Dock, 50 acres in extent, well equipped with steam cranes and spacious warehouses for the storage of merchandise.

Belonging to the North Eastern Railway Company—

Tyne Dock.—Water area 50 acres in extent (exclusive of timber ponds).

Tidal basin, 10 acres. Situated near the entrance of the river.

Staith Accommodation for Coaling Vessels—

Albert Edward Dock Staith, belonging to the Tyne Improvement Commission.

Whitehill Point Staiths (5 in number), belonging to the Tyne Improvement Commission.

Northumberland Dock (11 private staiths).

Tyne Dock Staiths, belonging to the North Eastern Railway.

Dunstan Staiths, belonging to the North Eastern Railway.

Many private staiths in the river.

Timber Ponds—

Belonging to the Tyne Improvement Commission, Jarrow Slake, 76 acres in extent.

Belonging to the North Eastern Railway Company, Tyne Dock, 35 acres in extent.

Quays—

North Shields (belonging to the Tynemouth Corporation).
South Shields (belonging to the South Shields Corporation).
Newcastle Quay (belonging to the Newcastle Corporation).
Gateshead Quay (belonging to the Gateshead Corporation).
And others.

VI.—DRY DOCKS.

Being a shipbuilding port there are innumerable dry and floating docks owned by private firms or companies, the largest of which has a 90-foot entrance, is 675 feet long, and has a depth of 28 feet.

VII.—APPROACH CHANNELS.

The port of Newcastle, with its population of 200,000 souls, is situated 12 miles from the North Sea, on the River Tyne.

The River Tyne is navigable from Hedwin Streams to the North Sea, a distance of $19\frac{1}{2}$ miles. It has a channel depth varying from 25 feet at low water to 35 feet at high, and the approximate widths of the channel vary from 150 feet at Newburn to 700 feet at Shields Harbour.

The following lighthouses mark the harbour and river:—

High and low lighthouses (North Shields).

North Pier lighthouse (85 feet high).

South Pier lighthouse.

Groyne lighthouse.

The whole of these lighthouses are under the control of the Commissioners, who are the lighting and buoying authority of the port.

The range of tide varies from 14 to 15 feet at ordinary springs.

The river bed consists of soft sand and mud with stretches of solid rock.

An enormous amount of dredging has been required to bring about this wonderful transformation in the river itself. From the year 1850, when the river depth at the bar did not exceed 6 feet at low tide, up to the end of 1907, a total of over 120,500,000 tons had been raised by dredging, towed out to sea, and deposited far enough from the entrance to prevent of its ever becoming a menace to navigation.

To carry out this dredging the plant in use has been—

6 ladder dredges.

8 tug boats.

13 steam hopper barges.

24 dummy hopper barges, and other craft.

And the cost to date of the dredging alone of the River Tyne amounts to about \$13,750,000.

VIII.—ACCOMMODATION FOR VESSELS.

Both the riverside quays, water moorings, and docks afford ample accommodation for vessels to lay up.

IX.—PORT EQUIPMENT.

The docks are all supplied with cranes, coal staiths, or pier-heads for the shipment of coal. The coal for the Commissioners' staiths is brought down in cars by locomotive or hydraulic capstan from the standage sidings on to the staith-head, and from thence automatically to the tipping point. The empty cars return automatically from the tipping point along empty wagon sidings provided for the purpose.

SESSIONAL PAPER No. 21c

Each car, fitted with a hopper, is received at those staiths of the Commissioners which are fitted with hydraulic hoists at the tipping point into a hydraulic cradle, which is elevated and the coal teamed into the hold of the vessel through a steel spout at the rate of 500 tons an hour. The Commissioners' staiths so fitted are specially built for loading at great heights.

Grain warehouses and general receiving dépôts for mixed cargoes are also provided. The grain warehouses are privately owned and controlled, and there are 14 large warehouses and sheds for the storage of grain and other cargoes.

X.—PORT ADMINISTRATION.

The Port is under the jurisdiction of a Commission, called the Tyne Improvement Commission, consisting of 2 life Commissioners, 15 Commissioners elected by Corporations from the different Tyne ports of Newcastle, Gateshead, Tyne-mouth, South Shields, and Jarrow, and 15 elected by the payers of Tyne dues representing the shipowners, coalowners, and traders.

In addition to possessing authority over the river traffic, this Commission also is the owner of docks and staiths enumerated above, the river police and fire authority, the lighting authority, the owner of three ferry services, and wrecking authority within the limits assigned it under the original Act of 1850 and subsequent Acts.

The Chairman of this Commission is Sir William Haswell Stephenson; the Secretary, Mr. J. McDonald Manson; the Chief Engineer, Mr. James Walker.

The Trinity House of Newcastle-on-Tyne has three representatives on the Commissioners' Committee, which deals with the lighting of the port.

Pilotage is under the control of the Tyne Pilotage Commissioners, and is not compulsory.

XI.—PORT CHARGES.

Charges against the Ship.

The revenue of the port is derived from 13 different classifications of rates and dues levied as follows:—

Pier rates, tonnage rate for moorings, river tonnage rate, ballast dues, River Tyne export dues.

1. Pier rates vary from 2 to 4 cents per registered ton and are paid by the ship.

2. Tonnage rate for moorings $\frac{1}{2}$ cent per registered ton charged against every vessel receiving, discharging, or delivering cargo within the port.

3. Additional rates for using the moorings after first eight weeks of $\frac{1}{2}$ cent per registered ton per month during the next succeeding four months, and 1 cent for each month or part of month beyond this period per registered ton.

4. Ballast dues against the ships loading or discharging solid or liquid fuel or ballast from 2 to 4 cents per registered ton.

5. River tonnage rate of 3 to 6 cents per registered ton.

6. Ballast dues for conveying or receiving ballast within the port, 33 cents per ton.

7. Ballast conveyed to sea, 37 cents per ton.

8. Dues on vessels entering or leaving the port without receiving or delivering or discharging cargo, 5 cents per registered ton.

9. Bridge dues on every vessel passing either way through the opening or swing bridge, 4 cents per registered ton.

10. Dues on river steamboats \$1.00 per horse power per annum for towing vessels or vessels carrying local passengers or goods.

7-8 EDWARD VII., A. 1908

10. Harbour light dues range from 22 cents to 35 cents on every vessel leaving or entering the port according to the tonnage.
11. Buoys and beacon dues from 8 cents to 31 cents for every vessel entering or leaving the port according to the tonnage.
12. Export dues 2½ cents on every ton of coal cinders or coke carried.

Charges against the Goods.

Dues on goods are paid according to published tariff, and vary according to classification.

XII.—FINANCIAL SITUATION.

The expenditure by the Tyne Improvement Commissioners in the river and dock improvement at the end of 1907 amounted to nearly \$83,500,000.

The total revenue of the Tyne Improvement Commissioners for 1907 amounted to over \$2,186,000.

XIII.—GENERAL IMPRESSIONS.

The Commissioners are proceeding to create a still deeper waterway, and on the 8th January, 1903 determined, on the recommendation of their engineer, Mr. James Walker, to continue deepening the channel so as to ultimately obtain a minimum of 30 feet at low water instead of 25, their policy being to dredge the river to a depth in advance of the size and draft of vessels frequenting it.

The River Tyne, through the foresight and energy of the Commission established in 1850, has made possible the launching of the greatest battleships and the greatest transatlantic liners built in the world. From a river narrow, tortuous, and full of navigation difficulties with a depth of 6 feet, it has been changed into a broad commercial avenue of trade permitting the launching of the mammoth "Mauretania" from the yards of Messrs. Swan, Hunter and Wigham Richardson, Limited. The river from Hedwin Streams to the sea, a distance of 19½ miles, has become a main thoroughfare on whose banks have been built up a continuous industrial development hardly rivalled the world over. Among these great industrial works are the famous shipbuilding and armament works of Sir W. G. Armstrong, Whitworth Company., Limited, at Elswick.

The investment of so large an amount of money in protective and development works on the river has, however, been amply justified by the great development in the port's business, which principally consists in coal for export and timber for import. Last year's, 1907, export of coal amounted to 17,850,000 tons.

This import and export business of raw material is of course aside from the tremendous industrial development that has sprung up almost throughout the entire length of the navigable portion of the river. The shipbuilding yards of Messrs. Swan, Hunter and Wigham Richardson, Limited, established on the Tyne are among the most important in Great Britain, as are also the huge steel armament works of Sir W. G. Armstrong, Whitworth Co., Limited, at Elswick.

Both banks of the river are lined with industries, the chief among these being the following:—

1. Shipbuilding.
2. Ship repairing.
3. Chemical manufactories.
4. Cement manufactories.
5. Ordnance works.
6. Lead works.
7. Brick works.

SESSIONAL PAPER No. 21c

8. Paint and colour works.
9. Chemical manure works.
10. Creosoting works.
11. Iron and steel manufactories, engineering and boiler-making shops.
12. Timber yards and saw mills.
13. Corn mills.
14. Blast furnaces.
15. Hemp and wire rope works.
16. Grindstone manufactories.
17. Potteries, &c., &c.

PORT OF HAMBURG.

I.—INTRODUCTION.

Hamburg is situated on a tidal river, 76 miles from its mouth, the farthest inland ocean navigation point on the River Elbe. Meeting this ocean traffic is a canal and river system of water distribution. Main lines of railway running throughout the German empire also converge here, making the study of her development very interesting from her likeness in point of situation to the port of Montreal.

The German empire, in Europe, is a confederation of states or provinces, each presided over by a local government.

Hamburg is one of these states, and not only includes the city but a surrounding area of considerable extent.

The city has a population of 850,000, and until 1888, when she joined the German Customs Union, was the largest of the towns belonging to the Hanseatic League.

In the 13th century an alliance of the great commercial towns of North Germany was formed, which has since been known to the world as the Hanseatic League. The object of this association was to protect German trade against Danish enterprise in the Baltic Sea. This League, ostensibly formed for trade purposes, only made war against Sweden and Denmark, and garrisoned several important places in those countries, becoming so powerful at the end of the 14th century that it actually elected the King of Denmark. Eighty cities were included in the Hanseatic League from Revel to Amsterdam, and Cologne to Cracow. With the rise of English sea power, and the creation of new commercial relations between Europe, America and India, the prestige of the League declined.

Towards the middle of the 13th century Hamburg's prosperity began to return, largely due to the enterprise of her citizens and the establishment of direct communication with America.

Beginning with the year 1881, a settled purpose makes itself manifest in the steps that were taken to establish a great world port, and for the seven succeeding years enough land was quietly acquired by the state to carry out its plans. Whole districts containing streets, warehouses, dwellings, &c., were expropriated in anticipation of this development.

II.—OCEAN BUSINESS.

Being the distributing point for a large over-ocean trade, the business coming to Hamburg by ship comprises nearly all the articles known to commerce. The Hamburg-American Company, one of the largest and most influential shipping companies in the world, finds its headquarters here and occupies a considerable

7-8 EDWARD VII., A. 1908

part of the harbour exclusively for its own business. All types of vessels trade with Hamburg.

The number of vessels entering the port of Hamburg has increased from 13,000 to 15,000 in five years, and the tonnage in the same time from 8,000,000 to 11,000,000 tons. In addition to this, the inland trade amounts to 8,500,000 tons a year, and the tonnage of the vessels discharging at the mooring buoys in the stream is said to be two-thirds of that discharged at the quays.

The ownership of the port, so far as the wharves, transit sheds, and terminals are concerned, is vested in the state of Hamburg, which is also the authority for the dredging and maintenance of the navigable channel, the annual cost of which within and without the docks, including the expenses of maintaining the dredging machinery and plant, amounts to \$225,000. The plant now in service consists of six dredges from 85 to 750 tons. The material dredged has to be taken away a distance of $6\frac{1}{2}$ miles, and the annual amount dredged during the last 10 years has been 1,140,000 cubic metres.

III.—FEATURES OF SUCCESS.

The state owns the entire harbour area outright, and has provided considerable reserve areas for future development.

The bounties offered by the German government for the cultivation of beet root, producing as it has large quantities of beet-root sugar, sends to Hamburg a large part of its exports, which are carried away in ship-loads to other countries. This, together with the great increase in manufactured products destined for foreign markets, provides a large part of return cargoes leaving the port.

Auxiliary Port.

Two special features in the scheme of development stand out as peculiar to the port; the first is the establishment of an auxiliary port, 56 miles away, at the mouth of the River Elbe, for the express accommodation of deep-draft Atlantic liners, whose size prevents their coming up the river without first discharging a portion of their cargo to reduce their draft.

Free Port.

By far the most important feature, however, in the port's development consists in its free customs harbour or bonded warehouse district. This free harbour is cut off from the rest of the water area by floating palisades in the river itself, and the customs canal on the city side. Into this harbour vessels come and go, discharge their cargoes in part or whole into the warehouses with which it is provided. These goods may be remanufactured and reshipped out again to foreign countries without the application of a customs tariff, or may remain in store until wanted within the German empire, and upon which the duty is only paid when delivery out of the customs district is made. In the case of reshipment inland by canal or river barge, this customs duty is paid at the point of destination. Ships may be extensively repaired within this free district, employing home-made material and home labour without the exercise of the German customs tariff. This has made it possible for Hamburg to become a collecting port for distribution of large cargoes all over Europe, and the advantage of being able to store whole cargoes and redeliver in small parcels to suit customers and destination has created a very valuable additional harbour business.

Warehouses.—The warehouses within the free port have been built by a private corporation known as the "Freeport Warehousing Company," with the state of Hamburg as a partner, the state also taking part in the administration

SESSIONAL PAPER No. 21c

and a share in the profits. The warehouses have been built, however, and are maintained by the company, who operate them under regular rules and tariff, having leased from the state for 50 years the ground on which they stand. At the end of 50 years the state has the option of becoming the owner of them.

In the free port district warehouses of modern type line the water inlets leading to them. They are built of stone and brick, rest on pile foundations, and range from 6 to 12 storeys high. Into these is possible the direct removal of cargoes which have first been deposited in the quay sheds, there sorted and lightered to the warehouses.

IV.—TYPES OF PORT BUSINESS.

(a) *Ocean Ship to Coasting Ship.*

A very large and extensive grain trade is done in Hamburg from the Baltic ports in coasting vessels, or is shipped from the large liners bringing grain from the Argentine and America into small coasting ships for distribution to other ports. The Hamburg-American Line themselves own several improved pneumatic floating elevators for purposes of this trade.

(b) *Ocean Ship to Railways direct.*

As all the railways leading to the port are owned by the state, this puts under one single control the port, the canals and the railways. In her development Hamburg has provided railway communication of the most modern type to and from the piers in the harbour, all of which is being more and more appreciated by merchants and shipowners.

(c) *Ocean Ship to Warehouse by Vehicle.*

Only a small amount of carrying trade is done from ship to warehouse by vehicle.

(d) *Ocean Ship to Warehouse by Lighter.*

A very large proportion of the port's business is handled from ship to warehouse by lighter. The splendid warehousing development lining the different water approaches to the harbour makes this a very desirable and economic method of handling goods.

(e) *Ocean Ship to Canal Barge.*

One thousand four hundred inland craft and 5,000, river barges are devoted to this trade, which is growing every year in favour, much increasing the efficiency and despatch of the port.

The barge traffic of the port is among its prominent features. There are as many as 5,000 of these barges varying from 100 to 1,500 tons, owned by private individuals or shipping companies. Against these barges no charges are imposed.

About 22 per cent of the port's business is done by rail, 40 per cent by river boats, 10 per cent by inland waterways and about 25 per cent on to cars through the different sheds.

V.—PORT TYPES.

Hamburg is a tidal basin port, all her berths being approachable direct from the river without the necessity of locking in. This character of development

7-8 EDWARD VII., A. 1908

has been decided upon no doubt on account of the range of tide not exceeding 6 feet, and while there are gates which separate the different parts of the harbour all the basins have free access to the river.

The wharves used for sea-going traffic are nearly all equipped with sheds for depositing, collecting, distributing and despatch of cargoes.

From the harbour, stretching out through different parts of the city, are a series of small waterways running direct to innumerable warehouses and factories. This affords one of the cheapest means of transport, and facilitates the distribution of the large warehouse merchandise from time to time.

VI.—DRY DOCKS.

Hamburg possesses only one graving dock built as a basin out of masonry, having adopted floating dry docks, of which she possesses 11, the largest of which now takes a 17,000-ton ship. Another floating dry dock is under order of 35,000 tons capacity. The description of docks here follows, and all of them are owned and operated by private individuals or corporations.

Name of Owner.	Length over all.	Breadth at Entrance.	Depth on Sill at High Water, Ordinary Springs.	Remarks.
	Feet.	Feet.	Feet.	
1. Blohm and Vofs (floating).....	320	52	18	} To lift 4,000 tons.
2. " " ".....	355	52	18	
3. " " ".....	Dimensions	not known, but not large.		
4. " " ".....	560	88	30	To lift 17,500 tons. Can be sunk in ten minutes and raised in fifteen minutes; can be towed to Cuxhaven.
5. Hamburg American Steamship Company.....	400	50	18	
6. P. Wincke.....	260	50	14	
7. A. G. Stulekin (floating).....	269	39	13	
8. " " ".....	210	45	14	
9. Reiherstieg Company (floating).....	330	85	20	
10. Brandenburg (floating).....				To lift 5,000 tons.
And at Altona, Rode Brothers (floating)....	150	41	17	To lift 3,600 tons.
And six patent slips for vessels from 400 to 1,150 tons.				To lift 600 tons.

There is no tariff of charges for the use of the docks, the remuneration for their use being fixed by private arrangement as circumstances warrant.

Repairing Shops.—In connection with the floating dry docks are well equipped repairing shops, all necessary appliances for repair work to ships, also under private authority and management.

VII.—APPROACH CHANNELS.

The channel of the River Elbe may be said to begin at Cuxhaven, 56 miles below Hamburg proper, and is stated to have a minimum width and depth at low water of 650 feet and 26 feet respectively. The range of tide is spring 6' 16 feet, neap 5' 80 feet, and the flow of the river averages 4 miles per hour.

The bed of the river is principally sand, and there are numerous bars collected at different points between Hamburg and the sea; upon one of these, off Schulau, the mean low water depth is 16½ feet in the navigable channel.

The larger vessels of the Hamburg-American Steamship Line unload part of their cargo at Cuxhaven, and all the largest vessels have to wait for high water before entering Hamburg.

SESSIONAL PAPER No. 21c

From time to time the navigation of the river is made difficult by ice floes in the river, when the pilotage rates are doubled and ice-breakers are employed.

VIII.—ACCOMMODATION FOR VESSELS.

The harbour of Hamburg has room for 450 sea-going vessels, and consists of a series of ten tidal basins, which, together with the remaining area of water in the harbour available for sea-going ships, cover a total superficial area of 332 acres. River craft have an additional area of 132 acres, and the small canal and inlets leading to different parts of the town amount to 485 acres more. Three new basins are being built with an additoinal water area of 133 more acres, making a total water acreage in the harbour of Hamburg of 1,082 acres, and the quay mileage for sea-going ships is in round figures fifteen miles. For river craft and light draft vessels there are seventeen miles of wharf accommodation more.

In addition to the piers and shore wharves lining the different basins are parallel rows of water berths or anchorage dolphins, consisting each of a group of fifteen wooden piles driven into the bottom of the basin and firmly chained and anchored together. These rows of water berths take the largest ships, and ships tying up at these dolphins pay no wharf dues.

This system doubles the berth accommodation of the port.

IX.—PORT EQUIPMENT.

Shed Accommodation.—The sheds are all one-storey sheds of cheap wooden construction, about 130 feet wide and varying from 360 to 1,000 feet in length, standing on piers, the quay walls of which are sixteen feet above the level of low water. The floor level is about four feet above the quay pavement. The length of all these quay sheds is six miles, and they enclose an area equal to eighty-two acres. The sheds are so built as to be high and light and are made to burn. From without they look like a three-storey shed. They are invariably set back from the water side, there being room between the quay wall and the shed for railway tracks, driveway, wooden platform, or a combination of the three. The sheds are wooden, with corrugated iron sides, with iron plate alley ways at regular intervals running at right angles to each other, upon which the trucking is done. The goods are sorted to mark, each post of the shed being numbered with a small black disc with white painted figures. The name of the consignee and the place of departure in the case of imported goods and the point of destination in the case of exported goods are written in white chalk letters on a blackboard sign suspended from a wire so that each lot of goods can be quickly and easily found.

The electric light and power wires run along the roof of the sheds at either side conveying power to the cranes and the light to the lamps.

There is no fire protection of any kind, no hose, no hydrants, no water. In justification of the absence of fire appliances within the sheds it was stated that all the ferry boats and tugs are supplied with fire pumps.

There are in all fifty-two transit sheds with a combined area of about eighty-two acres, while in addition the total warehouse area for storage purposes is 106 acres.

The transit sheds owned by the Harbour Authority are leased by the year or by the day. The Hamburg-American Line leases for twenty years seven sheds with an aggregate area of 115,000 square yards, and pays an annual rental of \$325,000. This sum includes the railway equipment of tracks alongside the sheds and the installation and use of the cranes also. The Hamburg-American Company has leased a power station from the Harbour Authority and generates the power necessary for the lighting of the sheds and running of the cranes, which power is paid for in addition to their rent.

7-8 EDWARD VII., A. 1908

Handling devices within the harbour, under the control of the Harbour Authority, consist of tugs, dredges and fire boats.

Handling devices on the quay—cranes, the number and power of which are as follows:—

On 'Krahnhoft'—

1 large working steam crane, lifting 150 tons.

1 " " " 50 "

1 " " " 12½ "

1 " hand " 40 "

Inside buildings or fixed to outer walls of same:—

Warehouse 'A'—

4 hydraulic cranes, lifting 3,000 lbs.

4 hand cranes, lifting 2,000 lbs.

4 hydraulic lifts, lifting 2,000 lbs.

Warehouse 'B'—

8 friction winches, lifting 1,500 lbs.

2 hand cranes, lifting 2,000 lbs.

1 lift.

Collecting shed, Magdeburg Quay—

17 fixed hydraulic cranes, lifting 4,000 lbs.

Export shed, Hamburger Strasse—

6 fixed electric cranes, lifting 5,000 lbs.

1 hand crane, lifting 5,000 lbs.

Fruit shed "A"—

1 fixed electric crane, lifting 5,000 lbs.

Fruit shed "B"—

1 fixed hand crane, lifting 5,000 lbs.

Shed No. 16—

2 fixed hand cranes, lifting 5,000 lbs.

For transporting heavy goods } 42 hand cranes, lifting 5,000 lbs., some travel-
from the quay to railway } ling, some fixed, outside of quay sheds on
trucks or carts..... } land side.

For loading or discharging } 442 travelling cranes, partly worked by elec-
ships on the dock side of } tricity, partly by hand, partly by steam,
quay sheds..... } viz.:—

263 worked by steam, lifting 3,000 to 5,000 lbs.

84 " electricity, lifting 5,000 to 6,000 lbs.

95 " hand, lifting 2,000 lbs., and

1 fixed steam crane, lifting 15,000 lbs.

1 " " 6,000 "

1 " " 2,000 "

3 " " 10,000 "

The use of cranes is included in the ship's dues charged against the ship.

Railways.—Direct railway connection with all the railways running from Hamburg is made with the transit sheds, the management of the harbour and quay railways being in the hands of the Prussian Railway Administration.

Lighting.—The lighting of the State piers and sheds is done by the Port Authority, and is partly gas and partly electricity.

Elevators.—There are no grain elevators owned and operated by the Port Authority. The Hamburg-American Steamship Company own and operate four pneumatic floating elevators with a capacity of 100 to 130 tons per hour, the type of which is a modification of the Duckham system in use at the Millwall Docks in London. These elevators are said to cost in the neighbourhood of \$50,000 to \$60,000.

SESSIONAL PAPER No. 21c

Timber Space.—Special facilities for the storage of timber is provided by private authorities.

Special facilities for cold storage and live stock are provided by the Dock Authorities.

Four ice-breakers are used during winter months between Hamburg and the sea.

X.—PORT ADMINISTRATION.

The controlling authority of the port of Hamburg is vested in the Central Government of the State of Hamburg, consisting of a Senate and a Lower House. The Lower House consists of 160 members, half of whom are elected by popular vote of all qualified citizens. A qualified citizen is one who is a native of or has been naturalized in the State, and who has paid an income tax for five years on an income of \$300.00 per annum. Of the remaining 80 members of the Lower House half are elected by the judges, members of deputations, commissions, and courts of law, and the remainder by proprietors. The members of the Lower House are elected once every six years.

The Senate, on the other hand, consists of 18 members elected by all qualified voters for life. They are paid for their services, those who happen to be lawyers by profession getting \$6,000 a year, merchants \$4,500, and nine out of the 18 members of the Senate must be lawyers. The meetings and business of the Senate are transacted in private. Vacancies in the Senate are filled in the following manner:—

A Committee of Selection, numbering eight, four elected by the Lower House and four by the Senate. These eight members meet and select a list of four candidates for the vacancy, and from this list of four, after presentation to the Senate and Lower House, two are selected, one by each House. The initiative lies with the Senate, who presents laws after approval to the Lower House, and no law is sanctioned unless it receives the concurrence of the two Houses. In case of difference of opinion the two bodies select a commission to settle the matter.

The members of the Senate are the exclusive heads of the different Departments, known under the name of Deputations. That having authority over the port and its operation is called the "Deputation for Trade, Navigation, and Commerce," and consists of 16 members. The senior Senator presides over the Deputation. The Deputation presents reports to the Senate and the Senate, if necessary, to the Lower House. To facilitate executive efficiency the President of the Deputation is furnished with four expert officials. The Lower House votes all the money.

The Hamburg Port Authority appoints all the port officials, consisting of chief harbour-master, assistant harbour-masters, harbour pilots, and harbour inspectors. Allied with the Hamburg Harbour Authority, and in close executive relationship, is the Harbour Police Authority, who appoints the Captain of the Harbour police, Chief Commander, Commanders, and officers, and work in harmony with the officials of the port.

The executive staff consists of 1 superintendent harbour-master, 4 harbour-masters, each for a given district, 5 assistant harbour-masters, 2 harbour inspectors, 26 harbour pilots, 2 quarter-masters, 2 bridge masters, 2 crane masters, 2 bridge attendants, 2 assistants, and 15 sailors.

Pilotage is controlled by the same authority as the port. It is not compulsory, but vessels of 135 tons burthen and over must pay pilotage dues, whether they use the pilots or not.

The fire and police protection of the port are administered by the Port Authority.

XI.—PORT CHARGES.

The following dues are levied against the ship:—

- (a) Harbour-master's fee of \$1.25 on each ship drawing not more than 6½ feet each time the ship enters the port, and \$1.25 extra for every three additional feet. (There are certain special exemptions from the above charges, as in the case of yachts and pleasure boats or ships.)
- (b) A tonnage due on sea-going vessels of 8 cents per registered ton. (This rate is again subject to certain variations in certain cases.)
- (c) A charge for the use of the wharves of 12 cents per registered ton.
- (d) A charge of 25 cents per ton levied against the goods loaded or unloaded on the wharves, $\frac{7}{10}$ ths of which the ship pays, and $\frac{3}{10}$ ths paid by the cargo; the whole, however, is paid by the shipowner, who collects the $\frac{3}{10}$ ths from the merchant.
- (e) The pilotage dues are as follows, and are charged according to the draft of vessels, viz.:—

Table of Pilot Dues.

—		Summer Tariff.	Winter Tariff.
Ft.	Ins.	\$ cts.	\$ cts.
2	3½	6 10	8 55
6	9½	8 55	11 05
9	10	11 05	15 90
13	1	17 15	24 50
16	4	28 20	38 00
19	8	44 15	58 80
22	11	60 00	80 85
26	3	70 00	96 50
29	6½	78 40	107 50

The following discounts are allowed:—

	Per Cent.
For vessels going only as far as Cuxhaven.....	25
If vessels take a pilot not before Cuxhaven.....	75
If vessels come in empty or in ballast.....	50
If vessels clear out to sea from Cuxhaven.....	50
After twelfth voyage in a calendar year of same vessel made with a Cuxhaven Government pilot.....	10
After twenty-fourth voyage under above-mentioned conditions.....	20
After thirty-sixth voyage under above-mentioned conditions.....	30
Extra fee if pilot takes the vessel to an Elbe port further than Gluckstadt	50

NOTE.—In case the river is full of drift ice the pilot is entitled to charge double the above stated dues.

The pilot due from Bosch Station to the Hamburg port is about 90 cents per foot draft of vessel.

The harbour pilot due is \$2.40 per vessel.

There are no dues levied directly against the goods, and there is no intention on the part of the harbour authorities to change the method of raising revenue.

When the sheds are leased to different people temporarily the charge is 4¼ cents per cubit foot for the first five days, and ¾ cent per cubic foot per day for every day thereafter.

SESSIONAL PAPER No. 21c

XII.—FINANCIAL SITUATION.

It can be therefore stated, although authoritative figures are not available, that the harbour of Hamburg, with its auxiliary Cuxhaven, has cost the State of Hamburg to date a little short of \$100,000,000, and that the dues collected do not nearly pay the expenses of the port, and that the deficit is covered from other sources out of the general income of the State.

XIV.—GENERAL IMPRESSIONS.

Port Extension.—Starting with the year 1888 with a well-defined scheme of port extension and development under an expenditure on river docks and harbour of \$75,000,000, 2,500 acres of acquired property were consecrated to the provision of adequate water and pier areas equipped with transit sheds, cranes, and warehouses that have made Hamburg what she is to-day, the greatest Continental port, and puts her on the road to becoming the first port of the world.

Situated at the head of ocean navigation on the River Elbe, 76 miles from the North Sea lightship, Hamburg is met by a vast network of inland canals and small rivers which give her water access for distribution of her trade with a maximum depth of 6 feet, and a distribution area extending to Austro-Hungary, and covering Northern, Central, and Southern Germany. This stupendous expenditure on harbour and terminal development at the point where the farthest ocean inland navigation meets a system of inland waterways is unquestionably its justification. The fact that the River Elbe is tidal and of a sandy nature, with varying channel depths and compulsory continuous dredging, is the best assurance that if Montreal would adopt a similar courageous policy of development she, too, would command a trade future of which no power could rob her.

Notwithstanding this money already expended, the trade is pressing hard for further development, and a new dock basin of 34 acres extent, thoroughly equipped for ocean traffic, has been sanctioned and is under way at a further expenditure of \$6,000,000.

THE PORT OF ANTWERP.

I.—INTRODUCTION.

The extraordinary development of the harbours and maritime commerce of Germany, Holland, and Belgium, in the last few years merits a study of the geographical, economic, or other conditions which have led to this wonderful improvement to the shipping and trade of Northern Europe.

The harbours of Germany, Hamburg, and Bremen, have not been developed to the least degree faster than the resulting increase in German shipbuilding and ocean trade.

The making of a great port of Rotterdam has been followed by an immense increase in Dutch tonnage.

The great seaport of Belgium is Antwerp. It has been claimed for it that it is the best port in Northern Europe; and as about half of its shipping flies the British flag, it has been called a British port.

Unfortunately for Belgium, the greater length of the entrance up the River Scheldt is through the Netherlands. This is probably one of the reasons why the shipping of Belgium has not advanced with its harbour, the advantage going to other flags.

It is, however, an invariable rule that the harbour development on modern lines, is immediately followed by new shipping and increased trade.

In Germany and Holland, therefore, any sacrifices made for the good of the ports result in increased trade and advances in shipbuilding and the maritime fleet.

In Belgium, the benefits are increased Belgian trade, and increased foreign trade through Belgium, both of immense benefit to the city of Antwerp and the country generally.

The population of Antwerp, including suburbs, is about 400,000, and it is in the centre of a very productive and prosperous district.

II.—OCEAN BUSINESS.

The greater part of the ocean business to Antwerp is foreign.

The passenger emigration business through the port of Antwerp is very large, amounting annually to as many as 100,000, including those returning.

The following is the number of ocean vessels which entered the port of Antwerp in 1904:—

	Net tons.
Under 1,000.....	3,141
1,000 to 6,000.....	2,616
6,000 " 9,000.....	82
10,000 tons.....	13
	<hr/>
	5,852

Of this number, 3,107 were British, 1,099 German, and 388 Belgian.

The total tonnage entered was 9,400,335.

The number of vessels, with their tonnage, from some of the principal countries during 1904 shows the widespread ocean business conducted through the port of Antwerp:—

Arrivals from—

Country.	No. of Vessels.	Tonnage.
Great Britain.....	2,248	1,816,593
Germany.....	705	1,862,879
India.....	168	543,598
Argentine Republic...	181	464,617
United States.....	240	1,036,452
Canada.....	36	193,260

The number and tonnage, combining the arrivals and departures of ocean vessels for 1904 were as follows:—

Number of vessels.....	11,683
Tonnage.....	18,719,140

The chief imports are grain, animal products, coal, ore, and timber.

The exports are chiefly manufactured articles, metals, coal, and mineral matters.

III.—FEATURES OF SUCCESS.

Situation.—The harbour of Antwerp, situated at the head of ocean navigation, on the direct line of one of the trade routes of the Continent, and having splendid inland communications both by canal and by railways, is very similar to Montreal.

The River Scheldt is a small river compared with the St. Lawrence, and yet it is considered so good a maritime highway, that a harbour development at a cost of \$100,000,000 has been made or authorized.

SESSIONAL PAPER No. 21c

The more important features of success are that it is on the line of a great route, and the ocean navigation probably penetrates inland nearer to the centre of European business than at any other port. A radius of 100 miles takes in the whole of Belgium, the greater part of Holland, and a slice of both Germany and France.

Geographically, it is in nearly the same latitude as London, and only 30 miles further on the ocean route through Dover Strait. The length of river navigation is also approximately the same as compared with the port of London.

With natural and physical advantages, and an exceptional situation and good port facilities, Antwerp possesses one of the most successful and progressive ports of Europe.

The neutrality of the country also puts confidence in its stability as a port.

IV.—TYPES OF PORT BUSINESS.

The port business of Antwerp and of Montreal are very similar. * The railway connections to the wharves are very good. The inland canal system and the ocean navigation meet in the harbour. Both cities are large markets for the interior, and goods are stored in warehouses as collected from interior points, or for distribution in return.

The three types of business in Antwerp are, therefore, as follows:—

- (b) Ocean ship to railways.
- (c) Ocean ship to canal barges.
- (d) Ocean ship to warehouses by carts.

About half the freight of the port is by canal barges. A large proportion of this is loaded or unloaded direct. As, however, much of the goods has to be examined and sorted, the barges and the railways alike deposit or receive most of their traffic to or from the sheds.

This requires very large sheds and the best of handling equipment, as the barges have no derricks.

In this port the coasting traffic is very small, but the sea-going business with London, England, is very large, much of the foreign goods passing through that port.

V.—PORT TYPES.

The port of Antwerp may be classed under two distinct types, as follows:—

- (a) Riverside quays or jetties.

- (b) Wet docks.

(a) The city front along the river is all lined with quays, which were originally the type of accommodation afforded for ocean vessels. The total length of wharfage along the city front is about $3\frac{1}{2}$ miles. The depth varies from one or two berths of 33 feet, up to just sufficient for the steamers.

The width of the river opposite the city is about 1,400 feet. The port of Antwerp does not take in the opposite shore, which is almost entirely undeveloped.

These riverside quays were built by the government, and then handed over to the Port Authority to equip and administer.

They were practically all built between 1880 and 1902. As an ocean port, therefore, Antwerp is of recent development.

(b) In the accommodation for ships, there are in the wet docks system eight important basins, with their auxiliary entrances and connections. Three other small basins of the same type are available for barges and small vessels.

There are also two large wet docks just about completed and ready for sheds and equipment. These basins are in use, although the large main entrance from the river is not completed.

The extent of wharfage in the wet docks is nearly 11 miles, of which about 9 miles is suitable for sea-going vessels.

7-8 EDWARD VII., A. 1908

All of the large new development authorized and under construction is of this wet dock type, the estimated cost being \$55,000,000, not including the proposed new cut for the river.

VI.—DRY DOCKS.

There are six graving docks in connection with the port, all opening into one of the large basins.

The largest is 508½ feet long. Two other graving docks are situated on the opposite side of the river in connection with a shipbuilding yard.

There are no floating docks directly in the harbour, excepting one in connection with a shipbuilding yard a short distance up the river, at Hoboken, where there is also another dry dock.

VII.—APPROACH CHANNELS.

Antwerp harbour is situated at the head of ocean navigation on the River Scheldt, a distance of 55 miles above the entrance from the North Sea.

In ascending the river the first 40 miles are through Holland, or the Netherlands. Two countries are therefore connected with the approach channel to Antwerp harbour.

Unfortunately the worst part of the river for navigation passes through Holland, the government of which country may not be expected to interest itself in improving, for the benefit of a rival port to Rotterdam.

It is reported that the two governments have recently come to an understanding with regard to very necessary improvements to the river, and to the aids to navigation.

There are two pilotage authorities. The Belgian pilots may conduct ships through Holland, and the Dutch pilots may take ships up to Antwerp, but not into the docks.

The drawback of the approach channel passing through a foreign country must be very serious in connection with a river, the channel of which requires a very great deal of improvement.

In comparison with other rivers, very little dredging has been done up to the present. If, however, the future of the harbour is to be preserved, not only very great improvements are required, but, on account of the unstable character of the river bed, continuous work will be necessary.

The bends or curves are something remarkable. From Antwerp down the river in a distance of about 6 miles, there are three curves of a radius of about ½ mile, each being nearly a mile long and having arcs of from 90 to nearly 120 degrees.

The standard curves in the River St. Lawrence Ship Channel are 1½ to 2 miles radius, and none of them make anything like a right angle.

The current of the Scheldt (or Escaut, as it is locally named) is about 3 miles per hour, about the same at the St. Lawrence at Quebec, and similarly changing with every tide.

The tides are slightly less than at Quebec, spring tides having a range of about 15 feet. There are no great variations in water level due to floods.

Along each bank there are dykes, the bed of the river having raised by silting up, with the resulting raising of the level of the water.

Fogs are very prevalent in winter, and considerable difficulty is sometimes occasioned to navigation by floating ice.

All navigation of trans-oceanic vessels is with the tide. Vessels frequently do not complete the distance in one tide. Anchorages are frequent and nothing is thought of delays for tide.

SESSIONAL PAPER No. 21c

In case of a wreck resulting in a vessel filling, there is stated to be very little hope of saving the vessel, which settles rapidly in the sand.

While groundings are reported to be frequent, the damage is not usually serious.

There are over 50 tugs in connection with the river and harbour of from 20 to 650 horse-power.

The aids to navigation have neither the efficiency nor permanence of those in the St. Lawrence. The landmarks are far between, and the system of range lights is not developed to the same degree.

There are a large number of buoys, but none of the gas buoys can be compared with those adopted in the Canadian navigation.

Taking it altogether the Scheldt has neither the present navigable facilities nor the future possibilities of the St. Lawrence to Montreal. It is impossible to estimate the advantage of the permanence of the St. Lawrence channel and of its being under one authority.

The organization also, for the improvements, maintenance and control of navigation on the St. Lawrence are also considered infinitely superior to anything seen in any of the rivers approach channels in Europe.

There is always the possibility of delays and danger by ice in winter, as in 1894-95, but this danger is shared by its competitors.

VIII.—ACCOMMODATION FOR VESSELS.

The total length of wharfage front in Antwerp harbour is as follows:—

Riverside quays.....	3½ miles..
Docks front.....	10½ “
	<hr/>
	14 “

The riverside wharves alone can accommodate nearly 40 vessels. A large share of this, however, is reserved for channel and Baltic steamers and barges.

The docks accommodate an enormous number of vessels of all descriptions from small river open sail boats to splendid canal barges of 2,000 tons and large ocean ships; the estimated number of ocean ships in port at one time being 250.

The average tonnage of the ocean ships is about 2,000 tons, showing the large proportion of channel and Baltic vessels.

Judging by the number of vessels using the unfinished docks, and the few unoccupied berths, the port business is increasing equally with the accommodation.

IX.—PORT EQUIPMENT.

Sheds.—The shed accommodation in the port of Antwerp is remarkable. The government having placed the riverside quays at the disposal of the Port Authorities, there is only one authority, and splendid facilities for the store and handling of freight have been furnished.

Single storey sheds are the rule. The wharves are of ample width, and therefore a single storey shed, 196 feet wide, has been adopted, instead of a narrow shed with two or more floors.

The shed area in the port amounts to the extensive total of about 75 acres. The construction is not of the permanent type of the new Montreal sheds. The floors are paved with rough stone blocks, and trucking is very difficult.

Promenades.—In the central part of the city a promenade has been constructed on the top of the sheds, overlooking the ships. This forms a very convenient and popular walk for the public.

7-8 EDWARD VII., A. 1908

Cranes.—Hydraulic cranes to the number of over 400 line the quays everywhere. These have a capacity of from $1\frac{1}{2}$ to 2 tons. The newer cranes are designed to allow of four railway trucks running underneath, the front wheel of the crane running on the outside rail and the back wheel on a rail on the side of the shed. There are 9 or 10 powerful cranes of a capacity of from 10 to 120 tons.

Warehouses.—A large grain elevator of a capacity of 900,000 bushels, very much of the American type, is built by a company on land granted for a long term. There are six warehouses owned by the city, two of them being of four storeys and modern construction. They are not operated by the city, space being rented by the month at so much per square foot, the rental varying from 2 cents per square foot per month at the ground floor to one-fifth that rate for the upper floor.

Inland Canal System.—The Belgian canal system is immense. It is reported to have a combined length in Belgium alone of over 1,200 miles. The direct canals connecting the Rhine and other large waterways are large enough to admit of the navigation by large barges of 1,200 tons.

The interior barge traffic amounts annually to over 7,500,000 tons.

Railway Communications.—Besides being excellently situated as regards communication with the interior of Northern Europe by water, Antwerp has direct railway lines to the important centres of Germany, Holland, Italy and France. These, connecting with a splendid system of harbour railways, makes the exchange of merchandise between the *outré-mer* and the interior very advantageous.

X.—PORT ADMINISTRATION.

The River.—The improvements and general care of navigation is under the care of the governments of Belgium and Holland, no charge or tonnage dues being made for the dredging required.

Pilotage.—The pilotage of ships is obligatory.

The rates are fixed by treaty between the two governments. It is considered that the Belgium pilotage system is equal to any in the world. Certificates of master are necessary, and there are several grades before reaching that of pilot of a large ship.

Aids to Navigation.—These are also maintained by the government.

The Port.—The governing authority of the port is the *Conseil Communal d'Anvers*, consisting of 39 elected members, and the burgomaster, appointed by the King.

A *College*, or committee comprised of the burgomaster and five aldermen, acts as an examining and advising commission.

An alderman, called *l'Echevin du Commerce*, has charge of the administration of the port and the marine police.

Another, having charge of works, construction, &c., is called *l'Echevin des Travaux public*.

A permanent consulting Commission, composed of five officials presided over by the Alderman of Commerce, meets once a month to consider and report on public matters.

The city owns all the principal basins and the port equipment.

SESSIONAL PAPER No. 21c

The Government owns the quays on the river, and three small basins, which have been equipped by the city. It has confided the maintenance and administration of these sections of the port to the city under an agreement and a division of the proceeds.

In this way there is only one Authority in the workings of the port, not, however, including its channel approach.

XI.—PORT CHARGES.

The port revenues are obtained as follows:—

From tonnage dues on ships.
Leases of land and other property.
Warehouses.
Dry docks.
Cranes, &c.

There are no port rates charged on goods, and, except when leased, no charge for use of sheds.

Goods remaining longer than five clear days are subject to a warehousing charge.

The charges against the ships vary according to the berth.

In the docks the rates are—10 cents per net registered ton.

At the riverside quays, or at anchor in the stream, the dues are:—

6 cents per net registered ton for each of the first ten voyages per annum, with a reduction for subsequent voyages.

Inland craft pay from 1 to 5 cents per ton for dock charges in the basins, but they are free in the river or at the riverside quays, or alongside ships outside.

The docks are not assessed for city taxes.

The charge for the use of cranes is \$4 per day, including power and operator.

There are two pilotages, from the sea to Flushing and from Flushing to Antwerp. Each has an increased tariff in winter, but all are very moderate.

XII.—THE FINANCIAL SITUATION.

The total capital expenditure on the construction and equipment of the port is approximately as follows:—

Riverside quays and equipment.....	\$22,000,000
Docks and their equipment.....	23,000,000
Entire capital cost of port to date	<u>\$45,000,000</u>

A scheme of new development on the line of an extensive system of Wet Docks has been sanctioned by the Government and entered upon by the city. The land has been secured, and the work commenced. The plan includes a canal having nine large docks opening upon it.

The scheme is estimated to cost about \$55,000,000. A further scheme of diverting and straightening the river has been proposed, but not so far sanctioned.

XIII.—PORT DESIGN AND CONSTRUCTION.

The former harbour was designed on the principle of Riverside Quays.

In all the later proposals for improvements and extensions the type is Wet Docks.

The reasons for preferring the docks is on account of ice in winter, the danger of collisions, and because further extensive development along the river front would take the wharves too far away from the city.

The silting power of the river current is also a question requiring consideration in a swift-running river and a sandy river bed.

The cost of the high walls in the river would be much higher, and their construction more difficult than walls in the dry, inland, before the basins are excavated.

The construction work is all done by contract.

The substantial provision for future enlargement, according to the approved plans, indicates confidence in the future navigability of the river, which presents many more difficulties than in the St. Lawrence to Montreal.

XIV.—GENERAL IMPRESSIONS.

The success of Antwerp should give confidence in the future to Montreal as a port.

Considering situation, inland transportation, and the River St. Lawrence as the approach from the ocean, Montreal has incomparable advantages.

THE PORT OF MARSEILLE.

I.—INTRODUCTION.

In view of its situation in relation to the south of France, Italy, the Black Sea, Morocco, Egypt, and even India, the port of Marseille has very great natural commercial advantages.

The products from North America are required for consumption and manufacture, and for distribution to these places, by the large shipping companies of Marseille, of which there are fifteen.

Return cargoes of fruits, wine, macaroni, soap, tiles, &c., are sufficient to afford a regular trade.

The new Trade Treaty should show distinct results between Canada and the port of Marseille.

Twenty years ago Marseille was one of the up-to-date ports with reference to sheds, facilities, and equipment.

Though it cannot be now classed with the well-appointed ports of Europe, authority has recently been given for a large development, which has in view the future enlargement of trade with the interior of France by means of a canal connecting the harbour with the River Rhone.

The project was designed in 1870 by Engineer Guérard, who has since held the highest professional positions in France, and, with very little modification, was adopted by the Government in December, 1903.

From the present harbour a temporary sea wall is to be constructed to make a protected passage several miles in length to the edge of the Rove Mountain, through which it is to pass by a tunnel $4\frac{1}{2}$ miles in length, and from there by a new canal nearly 20 miles long, to a junction with an existing canal which joins the Rhone 100 miles up, toward the interior.

The canal is designed for only small river vessels.

The proposed width is from 56 feet in the tunnel to 160 feet on the canal curves, and the depth $6\frac{1}{2}$ feet.

The amount authorized for the construction is \$14,200,000, of which one-half, \$7,100,000, is to be paid by the State, \$1,325,000 by the municipalities, \$1,325,000 by the City of Marseille, and the balance, \$4,450,000, to be provided by the *Chambre de Commerce* of the city.

SESSIONAL PAPER No. 21c

The project was adopted after long discussion, especially in view of the decline of commerce, due to the great recent development of the ports of Germany, Belgium, and Holland.

It would appear, in view of the difficulties in communicating with the interior of France, either by canal or railway, that the future of any successful shipping development at Marseille must be on lines of city trade and transshipment business between Mediterranean vessels and oceanic shipping, for which Marseille is well situated, rather than from extensive export and import business of France.

II.—OCEAN BUSINESS.

The port of Marseille is the home port of a very large Mediterranean fleet of vessels, mostly owned and operated by French companies; the business is largely the bringing of products from all points in Italy, Turkey, Russia, Austria, Egypt, and Morocco, for ocean distribution, and the re-shipment of trans-oceanic business to these same ports.

The trade is quite extensive. Transshipment takes place from ocean vessels to all sorts of craft, from the Italian felucca to the splendid Alexandria steamers, and to the numerous vessels of the Black Sea fleet.

There are at Marseille a considerable number of establishments for the manufacture of soap, macaroni, wine, tiles, cement, &c., which add to, and are developed in connection with the commerce of the port.

The vessels to be seen in the harbour are of every type except as limited by the draught of water and the harbour accommodation. The P. & O. Indian steamers do not all now call here, and the larger German ships go to Genoa.

The trade results of the port to the country, appear to be confined to an immense passenger business through France, *en route* to Mediterranean and Indian points. The freight business, by rail, with the interior, is limited by very inadequate railway accommodation as furnished by the one railway company.

The commerce is mainly responsible for what prosperity there is in the city of Marseille, and the ownership of the shipping is largely held throughout France.

III.—FEATURES OF SUCCESS.

The history of the port of Marseille is full of romantic incidents connected with the various epochs of southern European power and decline.

The remains of the Greek harbour still exists in much the same outlines as developed for the commercial and strategic requirements of the age of supremacy of Greece.

The present "Vieux Port" was built by the Romans, and for commerce and vessels of the types in vogue at the time of the Roman domination, it can still be pronounced marvellous.

The commencement of the modern development of the port of Marseille dates from 1853.

Owing to the fact that the bay is completely surrounded by rocky, mountainous, sloping shores, it was necessary to encroach on the sea for further harbour area.

The fierce frequent high winds, called the "mistral," made it necessary to take special precautions to render the new development a place of absolute shelter and safety.

Accordingly a massive sea wall was constructed parallel to the shore, at a distance of about a quarter of a mile. The first enclosure, Bassin de la Joliette, was made rectangular in form, 1,200 feet wide and 1,600 feet long, parallel to the shore. Cross walls with narrow entrances 75 and 200 feet in width connect with the shore quays, and a narrow canal in complete shelter, inside the entrance, connects with the Old Harbour.

In this basin all vessels either anchor or moor end-on to the quay. Every thing is lightered, or carried ashore on narrow gangways hanging from the stern of the vessels, which are tied up in rows about 10 feet from the quay walls.

Successive rectangular basins have since been constructed all of the same general type, except in one case, where the direction of the shore makes a triangular basin necessary.

The later docks have been made larger, the largest being 1,600 feet wide and 2,800 feet long. Three moles, or piers, make accommodation for ships which desire to berth alongside the quays.

The inside of the breakwater is finished as a longitudinal wharf, for waiting vessels, coal, or other bulk freight.

In the new harbour development there are now six basins, de la Joliette, du Lazaret, d'Arenc, de la Gare Maritime, National and Bassin de la Pinede.

They are each almost completely separated by means of cross walls, having narrow passes for vessels, which are crossed by swing bridges.

As the sea front was, before the construction of the breakwater, quite useless, being an exposed rocky shore, and everything being built out beyond the original beach, private ownership of land or water front did not here add to the difficulties, as frequently experienced in places long inhabited and improved. Even the quays along the shore were built on made land, giving ample width for wide streets and railways.

The situation of the harbour of Marseille is in a bay or gulf, surrounded on three sides by high sloping rocky banks, and completely exposed on the fourth side to the full force of the Mediterranean. There are also the fierce mistral winds down or up the valley of the Rhone, caused by the great changes in temperature between the African shores and the Alps; which at certain seasons of the year are almost constant.

Geographically, Marseille is splendidly situated as a connecting point or interchanging point between oceanic shipping and Mediterranean, Black Sea, and Indian vessels.

If good railway or canal communication could be obtained, the situation for southern French commerce would also be unsurpassed.

The various authorities all admit that the railway accommodation, except for passengers, is quite inadequate, and present communication with the Rhone waterway is almost impossible on account of the exposed 20 miles of coast line to be navigated, until the canal and tunnel now under construction is completed.

The extent of the shipping of the Mediterranean which could conveniently centre for distribution to the world at the port of Marseille is very great.

The south of France trade, with good transportation routes into the interior, would also be sufficient for the commerce of an important shipping centre.

The question of the establishment of a free port zone, as an inducement to make Marseille a point for the manufacturing and assembling of local and foreign products and the making of a great warehousing market, is a live one at present, in the hope of reviving the activity somewhat lost since the wonderful development by the Germans of Genoa.

IV.—TYPES OF PORT BUSINESS.

(a) *Ocean Ship to Coasting Ship.*

This is, owing to location and transportation facilities into the interior, the principal port business of Marseille.

Much of the work of interchange is carried on by means of lighters, as is also a considerable share between the quays and the ships.

SESSIONAL PAPER No. 21c

(b) *Ocean Ship to Railways.*

Owing to the position of the port, surrounded by heights, cheap railway freight transportation is exceedingly difficult. There also appears to be no competition, all railway business being carried on by one company, which caters almost exclusively to passenger and express freight business.

(c) *Ocean Ship to Warehouse by Carts.*

A considerable part of the business is carried on by great two-wheeled carts drawn by as many as five horses, tandem, between the quays and the warehouses and manufacturing establishments in the city. All sheds are open to carts.

As there are at present no inland canal connections, or city canals, there is no barge business.

V.—PORT TYPES.

The port of Marseille may be classified under the subdivision—

Tidal Basins.

There is a very slight tide, but the openings into the basins without gates, give free access to the sea.

The water of the Mediterranean is clear and free from sediment, so that the difficulties of keeping the depth once attained are not serious.

The quay walls, or wharves, are all low level, not more than 5 to 8 feet above the water.

The entrances to the system of docks, of which there are two, one at each end, are easy of passage if there is not too much wind, but frequently vessels, have to anchor under shelter of the hills and wait for the wind to fall, and the records of groundings are somewhat numerous.

All the basins are closed on the side next the sea, by the sea wall or breakwater. This is constructed of massive masonry, and further protected by immense blocks of concrete deposited irregularly. The length of this sea wall is about $2\frac{1}{4}$ miles. A magnificent promenade about 30 feet above the water extends the whole length, for foot passengers only, and is a popular resort for obtaining the beautiful sea air, a splendid view of the whole harbour being obtained.

VI.—DRY DOCKS.

There are six dry docks in the harbour of Marseille. These were constructed by the "Cie des Docks et Entrepôts," after having been given the sites, and a large proportion of aid by the State, as well as the usual concession.

A large yard, 2,400 feet long and 600 feet wide, is enclosed, containing a large basin into which the dry docks all open, and the shops, &c., for repairing vessels.

The system is an admirable one for vessels of medium size and draft. The largest dock is not quite 600 feet long and has an entrance depth of $22\frac{1}{2}$ feet.

In connection with the new basin authorized, a modern dock of ample size is proposed.

There are no floating docks in this port.

VII.—APPROACH CHANNELS.

From the Mediterranean Sea into the harbour of Marseille there are two entrances, the "Avant Port Sud" and the "Avant Port Nord." These avant-ports are practically sheltered by the breakwater, so that the passes into the

7-8 EDWARD VII., A. 1908

basins can, except under extraordinary conditions of weather, be safely made by the aid of tugs.

From the open sea into the avant-ports the entrances are respectively 1,400 and 1,900 feet wide, and the passes into the basin 236 and 350 feet wide.

The entrances from the sea are naturally deep and the courses of vessels absolutely unobstructed.

VIII.—ACCOMMODATION FOR VESSELS.

The available depth for vessels varies. In the centres of the basins there is 20 feet depth in the Old Harbour, and as much as 60 feet in the Bassin de la Pinède, recently completed. At the quays or wharves, however, the depth available is greatly less, being from 10 feet in the Old Harbour to $26\frac{1}{2}$, or a maximum of $27\frac{1}{2}$ feet, in the newest basin.

The total length of wharfage accommodation is about 10 miles, of which about 8 miles is suitable for the use of steamers. This, however, does not represent the available berths for vessels.

In the basins, a large number of vessels anchor to discharge and take cargo by lighters. As, however, there are no inland canals, the large number of lighters at the quays take up as much room as the ships would themselves. Vessels of greater than 28 feet draught require to anchor, on account of the depth alongside the wharves.

The total length of the breakwater is slightly more than $2\frac{1}{2}$ miles.

The widths of the piers vary from 280 to 400 feet, and the length from 400 to 1,200 feet.

The widths of the basins, between piers, vary from 400 to 700 feet.

Good wharf accommodation exists for vessels of from 25 to 28 feet draught to the number of from 25 to 35. Smaller vessels to about equal number may use the inside of the breakwater.

Others may double up, moor end-on, or anchor, all in safe shelter.

Shed accommodation exists for about 24 vessels.

Dolphins and mooring buoys are placed at convenient places for mooring ships while discharging or loading, without going to wharves.

The harbour occupies a water front of about three miles in length, all in close proximity to the city.

IX.—PORT EQUIPMENT.

Sheds and Warehouses.—Twenty years ago the sheds and equipment of the port of Marseille were remarkable as being in advance, in many features, of similar development elsewhere.

A concession having been granted to the Dock and Warehouse Company for a long term of years, that company had erected splendid sheds and storehouses, and equipped them with cranes and hoists of the latest inventions.

The later harbour developments having been carried out by the Port Authority, the Chambre de Commerce, sheds to the number of 12 have been erected, almost all single-storey. They are from 85 to 121 feet wide, the floors being on wharf level. One line of railway tracks extend between the shed and the ship, and two tracks behind the shed. On the edge of the quay an independent line of rails carry the cranes.

The floors of the sheds are paved with stone blocks, and heavy carts are admitted on defined longitudinal roads and transverse lanes.

It having been found that single-storey sheds, even of a width of 121 feet, was insufficient for taking the whole cargo of the larger modern vessels, the later developments are of the type of the Liverpool double-storey sheds.

SESSIONAL PAPER No. 21c

The columns are spaced 33 feet apart longitudinally and 23 feet apart across the sheds, the height of the ground storey being about 20 feet.

The second storey floor is calculated for a weight of 410 pounds per square foot.

The foundations are on concrete piles.

The upper floor is designed principally for inward cargo, discharged from the ship. It is lowered to wagons by chutes, or to cars by jiggers.

Freight, from the land side, to be placed in the upper storey, is taken up either by the cranes on the quay front or special cranes situated on the roof on the road-side.

The maximum capacity of this double-storey shed is calculated at 45 tons per running foot, which would be 22,500 tons for a 500-foot shed.

Freight Handling Devices.—The equipment of the port is also owned and operated in three different ways:—

The Docks and Entrepôt Company has—

Hydraulic cranes, fixed.

“ on rails.

Electric cranes on rails.

A floating crane, 20 tons.

A floating elevator.

The Chambre de Commerce has—

60 or more hydraulic cranes, on rails, of a capacity of from 1 to 3 tons, and many hand cranes.

1 large fixed crane for extra heavy weights.

30 electric cranes on rails (being installed).

In 1903 the cranes in operation were used on an average of 121 days out of the 300, or 40 per cent of the working time.

The various stevedores and contractors and private companies also own several floating elevators and a number of floating cranes of a capacity of 2 to 45 tons.

The new electric cranes now being installed are of the Liverpool type, one rail on the quay and the other on the shed.

Harbour Railway.—Almost all the wharves have railway communication direct to the sheds and ships. These connect with the railway company's terminal yards and stations, which are conveniently located.

Transverse carriages for moving cars from one track to another are located on the ends of all piers.

These harbour railways appear to be owned by three different corporations:—

A company having an old concession.

The Docks and Warehouse Company.

The Chambre de Commerce.

The Docks Company operate their own traffic on the wharves, the remainder is exploited by the P.L.M. Railway Company.

Tugs and Lighters.—Tugs to the number of over 60 are owned by private companies, some of them being of great power.

There are a great many small lighters and flat scows, for the transportation from the quays to the ships, which system does not recommend itself, except for ships of such great draught that they cannot approach the wharves.

Fire Protection.—In connection with the port there are maintained two powerful fire and wrecking vessels.

Police.—The police service is considered as for public security, and is attributed to the city. Being considered insufficient, the Chambre de Commerce

tried a special police service in 1901. This did not give the expected results and it was given up. It has been proposed to institute a special service for the outlying docks, of a steamer with a company of officers and men to live aboard, for regular police duties, at the expense of the *Chambre de Commerce*.

X.—PORT ADMINISTRATION.

The authorities engaged in the development of the port of Marseille appear to be as follows:—

- (a) The *Cie des Docks et Entrepôts*.—This company has a concession covering a large portion of the harbour, and the complete dry dock and ship-building establishments. Up to and including 1904, their share in the port expenditure amounted to about 25 per cent of the total.
- (b) The Government.—The expenditure directly made by the Government amounted to about 65 per cent.
- (c) The *Chambre de Commerce de Marseille*.—The balance, about 10 per cent of the total, mostly for equipment and sheds, was expended by the *Chambre de Commerce*.

The city of Marseille appears to have taken very little share in the port development.

The concession of the Dock Company, which dates from 1856, and which marks the beginning of Marseille as a large seaport, gives to that company practically complete authority and administration privileges over two out of the six large basins.

This company has also a concession covering the dry docks and yards, constructed partially at the expense of the company and partially by the State.

The *Chambre de Commerce*, since as early as 1859, is reported to have always taken a very considerable interest in the development of the harbour. The Government of France has, however, made the greater part of the contribution towards the development of the port.

The construction of the breakwater and of most of the piers, bridges, and permanent works were made directly by the Government.

The equipment and charge are delegated to the *Chambre de Commerce* acting under the "*Administration Supérieure*," represented by the *Ministre des Travaux Publics*.

XI.—PORT CHARGES.

Sheds.—At unreserved sheds, the dues on merchandise are at the rate of 10 cents per ton for periods of from 8 to 12 days, according to the amount of the cargo.

The time counts from the day the vessel completes discharging or from the day freight commences to be delivered.

After the expiration of the regulation period, a charge is made for the first three days of 10 cents per ton per day, and after that 20 cents per day.

In cases where goods are unloaded and removed within 24 hours, the charge is only 3 cents per ton.

Authority may be given for the renting of sheds for six month periods, at the rate of about 9 cents per square foot per semestre.

The total amount of freight reported as passing through the sheds in 1904 amounted to nearly 900,000 tons, or $1\frac{1}{2}$ tons per square foot of the floor area.

Cranes.—For cranes of $1\frac{1}{2}$ tons, including power and operator, \$6 per day of 10 hours is charged. For cranes of 3 tons, \$8 per day of 10 hours.

The total receipts from cranes alone, during the year 1904, amounted to nearly $\frac{1}{4}$ 40,000.

SESSIONAL PAPER No. 21c

Railways.—Charges made by P.L.M. Railway for transportation between quays and terminals, including the dues to the Chambre de Commerce:—

	Cents per Ton.
1. General merchandise.....	26
2. Grain, sugar, wines, &c.....	23
3. Bulk freight.....	20

Freight billed to ships is not charged this tariff.

All passengers arriving or departing by the special steamer trains are charged by the Chambre de Commerce a head tax of 5 cents.

In 1903 the Chambre de Commerce, after paying interest and all other charges, had a reserve from the charges for the equipment of sheds, railway tracks, cranes, &c., of \$37,262.40, which was added to the sums to be used for further ameliorations.

The railway company, out of its charges of from 20 to 26 cents per ton, pays a profit of about 5 cents per ton to the Chambre de Commerce. In 1904 this amounted to about \$20,800.

This rate of 5 cents per ton, *of profit*, would be at the rate of \$1 per car carrying 20 tons, and is included in the *railway company's charge* of \$4 to \$5 per car, of that capacity.

Besides the charges for equipment, the following are the port charges, for steam vessels, other than from Mediterranean or European ports, per registered ton:—

	\$	c.
Tonnage dues.....	0	20
Pilotage { Inwards.....	0	04.4
{ Outwards.....	0	03
Health Office dues.....	0	03
Sundry, surveying, weighing, Tribunal of Commerce, lifeboat, &c.....	0	05
Brokerage, for over 1,000 tons, per ton of cargo, loaded or unloaded.....	0	05

XII.—THE FINANCIAL SITUATION.

Expenditure.—From 1815 to the end of 1904, according to the admirable report of M. A. Batard-Razelière, Chief Engineer of the port of Marseille, the figures of expenditure were as follows:—

	\$	c.
By the State.....	18,970,929	00
Chambre de Commerce.....	3,151,908	00
Cie. des Docks et Entrepôts.....	7,317,088	00
City of Marseille.....	34,815	00
Total.....	29,474,740	00

Tonnage Returns.—From the same report, the tonnage for the five years to 1903 amounted as follows:—

Inward and Outward combined.

	1899.	1900.	1901.	1902.	1903.
Number of vessels of all classes.....	17,764	17,254	16,802	17,008	17,608
Tonnage.....	12,567,602	12,376,166	13,087,098	12,263,274	14,465,584
Weight of freight, tons.....	6,316,494	6,221,373	6,350,954	6,488,067	7,059,414
Average tonnage of vessels.....	700	710	780	720	820

The figures of tonnage are, however, somewhat misleading. When the same vessel enters and clears, the tonnage is recorded each way, and therefore double the returns, as by the Canadian manner of reckoning.

The weight of freight, however, and which is a very useful record, is the actual amount exchanged in the port, inward and outward combined.

XIII.—PORT DESIGN AND CONSTRUCTION.

Design.—The harbour is purely artificial, being built out into the sea, and protected by a massive breakwater.

Every effort has been made to concentrate the docks near the centre of the city. The protection works and many of the docks had therefore to be constructed in deep water.

The cost of the harbour, with its 8 to 10 miles of wharf front, has, therefore, amounted to the relatively high figure of over \$30,000,000.

The design is symmetrical. A magnificent promenade extends from one end of the breakwater to the other, overlooking the Mediterranean on the one side and the harbour on the other.

Construction.—From the protection works to the piers, dry docks, sheds, and cranes, everything is substantial and, as far as possible, permanent.

Splendid masonry, magnificent concrete work, and all fenced in by an artistic iron fence, gives a good idea of the character of this, the chief commercial national port of France.

The depth of water on the quays, however, is a matter of surprise, in view of the draught of modern vessels, the walls of latest pier having only been founded at a depth of about 29½ feet, with a depth of water of less than 28 feet.

Provision for the future.—This has been amply provided for, on the same symmetrical plan, the new basin, already authorized, to be 2,000 feet square, and designed to be an extension of, and to open into, the present system.

The estimated cost of the new basin, without equipment, is \$5,000,000.

The breakwater and piers are constructed departmentally by the Government, and the sheds and equipment for the *Chambre de Commerce*, by contract.

Foundations for the quay walls are brought up to the required level by rip-rap. On this the walls are built up, being tiers of massive concrete blocks, backed by a heavy sloping wall of rip-rap, the interior between the walls being filled up with excavations.

The water level not fluctuating to any extent, high quay walls are not required, and the concrete block walls are perfectly stable, and very much cheaper than those required where there is a tide or considerable inequalities in water level.

XIV.—GENERAL IMPRESSIONS.

Recognition as a National Port.—Although the trade is not largely of a national character, the large proportion being directly for the city or for transshipment into foreign vessels, the port has been developed by the Government to the extent of \$20,000,000.

Inland Water Communications.—A canal is now being made at great cost to obtain inland water communication with the interior. This canal will cost probably \$20,000,000 and then only give a depth of about 6½ feet, which indicates the value placed on inland water communication.

SESSIONAL PAPER No. 21c

Differences of Opinion.—Lack of harmony between the different port interests was in evidence, and general dissatisfaction appeared to exist as to the progress of the port.

Authorities.—The disadvantages were apparent of having three authorities and at least two administrative systems in the port, viz.:—

The Government;

The Chambre de Commerce;

The Cie. des Docks et Entrepôts.

The visible results of some features of policy with regard to harbour development and administration, may be seen by the transfer of business which formerly was done at Marseille, to Genoa, showing, that even with government support and a splendid natural situation, a port may be distanced by foreign competitors.

PORT OF HAVRE.

I.—INTRODUCTION.

Of all the French ports, Havre enjoys, from her prominent position on the English Channel, the right to look to the future with confidence. Just as soon as her port Authorities carry out the plans they have in view, her business must expand phenomenally.

II.—OCEAN BUSINESS.

Havre is the home port of the great ocean line of which France is so justly proud, La Cie. Transatlantique, which is rapidly developing into one of the strongest shipping companies in the transatlantic business.

It is the only French port on the English Channel to which Atlantic liners can reach the docks, and therefore is really the passenger port of France.

A large cotton trade is, however, developing, and every effort is being made to encourage the importation of raw rubber, and these efforts are meeting with gratifying success.

All types of steam, sailing craft are seen in the busy harbour, and her trade returns are growing year by year. Her tonnage is 8,837,978.

III.—FEATURES OF SUCCESS.

The River Seine, leaving Paris, winds its way through the fertile valleys of Normandy, passing the historic town of Rouen on its way to the sea, and empties into a large bay made by the projecting promontories of Capes Antifer and Barfleur, which are 55 miles apart. Past this great gateway flow the tides of the English Channel. The various currents in this curious area of the sea, seem to counteract the tide, so that the waters reaching Havre, France's great harbour at the mouth of the Seine, remain at high tide for three hours, whereas in ordinary cases the tide recedes as soon as it is high.

The natural depth of the bay and the character of the bottom lend themselves well toward any intended development. Geographically, no Continental port excels Havre in point of position. On the open sea, in the direct path of the great liners and the transatlantic steamers, the natural distributing point for central European trade, it is a matter of considerable wonder why Havre has not attracted a larger share of Continental business.

IV.—TYPES OF PORT BUSINESS.

- (a) Ocean ship to coasting ship.
- (b) Ocean ship to railways direct.
- (c) Ocean ship to warehouses by vehicle.

All are in operation.

V.—PORT TYPES.

The jetties of the outer port are all approachable from the sea. Her development consists principally of tidal basins and docks, of which there are ten.

VI.—DRY DOCKS.

The port of Havre has six dry docks, the largest of which will take a vessel 541 feet in length. The fact of Havre not possessing a larger dry dock has been the cause of sending the large boats away from the harbour to be refitted.

VII.—APPROACH CHANNELS.

The sea approaches to the port are marked by some of the finest lights in existence; the one on the Cap de la Heve has 2,500,000 candle power, and can be seen in clear weather for a distance of 52 miles.

The sea channel at the entrance has an outside width of 656 feet, with a high-tide depth permitting boats drawing 24 to 26 feet. There is another approach channel from the south-west 1,482 feet long by a minimum width of 328 feet.

VIII.—ACCOMMODATION FOR VESSELS.

The port itself consists of an outer and inner harbour, protected from the sea by long masonry arms.

The quay length of the outer port is about 1,600 yards. The water area comprises about 50 acres, and the quayage accommodation for the storage of merchandise about 5 acres.

The works now under construction will increase the water area and make a practically new outer harbour comprising an area of 175 acres, the entrance to which will be 656 feet wide, approachable by a channel having a width of 984 feet and a minimum depth of 29 ft. 6 in.

An ocean wharf 1,640 feet long, is under construction in the southern part of the new outer port, which will be accessible at all hours to boats drawing 29 ft. 6 in. of water. This will be particularly adapted to passenger traffic, and will be furnished with direct railway communication to all parts of the Continent.

An entrance lock to the inner harbour leading to the Eure Basin provides facilities for the largest vessels to enter during high tide, and for vessels drawing not more than 19 ft. 6 in. at low tide. This entrance will be 100 feet wide and have a length of nearly 800 feet. The port proper consists of 10 wet docks or basins as follows:—

King's basin, Barre basin, Eure basin, Citadel basin, Commercial basin, Vauban basin, Dock basin, Bellot basin, Canal basin, and a petrol basin.

The combined water area of these basins will be nearly 200 acres, possessing a quay length of 40,500 linear feet and a quay area of about 120 acres, after deducting the streets and the space occupied by railway track approaches.

In addition to these 10 wet basins is a tidal basin 1,100 feet in length, which will ultimately connect with the Bellot basin by an enclosed lock admitting the passage of vessels having a length of 600 feet.

These different basins are connected by 15 entrance locks, varying in width from 39 to 100 feet, and in depth from 22 to 35 feet.

SESSIONAL PAPER No. 21c

IX.—PORT EQUIPMENT.

The equipment of Havre by the Chambre de Commerce consists in the following, the use of which is charged for under tariffs of rates published from time to time;—

28	movable hydraulic cranes	1,500 to 2,500 lbs.
2	" " "	3,000 " 6,000 "
2	" " carriers	400 lbs.
2	" " "	2,000 "
14	" electric cranes	3,000 "
1	set of shear legs	120 tons.
11	movable electric cranes	3,000 lbs.
5	" steam cranes	3,000 "
6	floating steam cranes	2,500 "
1	" " "	8,000 "
1	" " "	20,000 " } fire pumps.

Power and attendance are furnished by the Chambre de Commerce.

The different quays are furnished with transit sheds of various sizes and depths, of which 26 have been erected by the Chambre de Commerce, having a total length of 9,000 feet, covering a space of 95,000 square yards. They vary in width from 20 to 200 feet, and in length from 125 to 700 feet.

Besides these there are others privately owned by—

The Dock Warehousing Company.

La Cie. Transatlantique.

Hamburg-American Line.

The best passenger sheds of any port visited are at Havre, and belong to La Cie. Transatlantique. Broad, spacious two-storey accommodation, the ground floor used for luggage freight and railway facilities. On the first floor are the waiting-rooms and passenger department, fitted up with every comfort.

X.—PORT ADMINISTRATION.

The controlling authority of the port is vested in the Chambre de Commerce, whose action is subject to revision by the State, through the Minister of Public Works.

Other authorities in the port with vested interests acquired from time to time are:—

The Dock Warehousing Company leases and operates 300,000 square yards, of which 170,000 are covered with warehouse accommodation with a capacity of 270,000 tons.

The General Warehousing Company have 152,000 square yards of covered shed space, with a storage capacity of 100,000 tons.

The Pont Rouge Dock Company controls 93,000 square yards, with a storage capacity of 92,000 tons.

The General Storage Company of Paris occupy 13,000 square yards, storing 31,000 tons.

The Tancarville Canal Company, 35,000 square yards, with storage facilities for 40,000 tons.

The Chambre de Commerce has, since 1818, taken a prominent part in the development of the port, under whose auspices in that year was formed "The Havre Port Company" with a capital of \$600,000, the merchants contributing two thirds and the State one third, the State taking over the revenue of the port for the years 1818, 1819, and 1820 to recoup itself for the advance made to the company.

This partnership between the State, with its headquarters at Paris, and the Chambre de Commerce at Havre has not been without very severe drawbacks from which the port has been long suffering. The history of the negotiations between the two Authorities for the carrying out of work which is now nearing completion began in 1879. In consequence of these long-drawn-out proceedings and political intervention great delay has been wrought in the development of the port, a large tonnage has gone elsewhere to other ports which have not been the victims of political interference or become dependent upon administrative authority exercised from afar.

For 30 years the Chambre de Commerce has struggled to overcome this state of affairs, but the money voted for port improvement has been received in such small amounts at a time that the port, which is in a grand position, opening right out into the English Channel, and only $2\frac{3}{4}$ hours from Paris, is not by any means doing the share of Continental trade she ought, although every effort is now being made to regain lost ground.

XI.—PORT CHARGES.

The rental tariff under which the different sheds are leased is as follows:—
Per net registered ton per day—

	cts.
1. Ships occupying a berth furnished with a shed exceeding 148 feet in length pay.....	$1\frac{4}{5}$
2. Ships occupying a berth furnished with a shed 98 feet up to 148 feet wide pay.....	$1\frac{3}{5}$
3. Ships occupying a berth furnished with a shed under 98 feet pay.....	$1\frac{2}{5}$

Sailing vessels are charged under a different rating.

There are certain modifications and rebates allowable under this tariff, provided the vessel exceeds in length the shed, and provided certain other conditions as to cargo are complied with.

The Chambre de Commerce lights the sheds free of charge, but undertakes no responsibility with reference to cargo.

These rentals are paid for the use of the shed by the lessee, who has the right of recovering a portion of it by putting a charge on the merchandise handled of—

4 cents a ton on cotton and woollens.
5 “ “ “ all other merchandise.

Cargo is allowed to remain on the quays 72 hours.

A penalty of one cent per ton per day is charged for the first five days succeeding the 72 hours, 2 cents per ton per day for the next five days, and 4 cents per ton per day for each additional day after.

Cargo arriving for export and deposited in the sheds before the arrival of ship on which it is to be loaded pays 60 cents per day for every 50 square yards occupied

Tonnage Dues on Ships.

Tonnage dues applied on the legal tonnage of each vessel entering the port to load, unload, or transfer cargo:—

Per net registered ton per voyage—

	cts.
1. Ships trading between Havre and non-European ports (with exception No. 3).....	8
2. Ships trading between Havre and European or Asiatic ports (with exception No. 3).....	6
3. Ships trading with any port whose cargo consists of at least nine-tenths cereals, balsam oil, iron ore, &c....	4

SESSIONAL PAPER No. 21c

Regular lines having at least one sailing a week are entitled to a reduction of 40 per cent under Nos. 1 and 2.

Regular liners having a monthly sailing are entitled to 30 per cent reduction under Nos. 1 and 2.

Vessels remaining longer than two months in the port are charged an additional tonnage rate of 2 cents per week per ton.

Railway access to the principal quays is provided.

The Western Railway Company handles the rail traffic to and from the docks to its own freight yards and charges therefor 6 to 12 cents per ton, according to the nature of the goods handled.

The port suffers from a single railway approaching the port owned by a private company. As its purchase for a long time has been contemplated by the Government, nothing has yet been done to improve the railway facilities to and from the port, in consequence of which these are far from being satisfactory. This, however, will soon be remedied.

THE PORT OF MONTREAL.

INTRODUCTION.

The first attempt to make a harbour for ocean vessels at Montreal was in 1830.

The Canadian inland canal system, connecting the Great Lakes of the central part of the North American Continent with the St. Lawrence at Montreal, had just been opened. The physical features of the locality, the trade situation, and the position as a point of interchange between ocean and inland vessels, was recognized.

Westward was the canal system to avoid the Lachine and other rapids.

The City of Montreal was fast becoming a commercial and manufacturing centre, and the situation for warehouses and works was excellent.

Eastward was the mighty St. Lawrence, with its clean water and permanent river bed, passing through Lake St. Peter and on 160 miles to Quebec, and 800 miles further to the Atlantic.

Navigation to Quebec was an accomplished fact for all classes of ocean vessels, but Lake St. Peter, half way up to Montreal, had only a depth of 10 feet.

THE SHIP CHANNEL.

Commencing modestly as it would be considered at the present time, but on right lines, the Montreal far-seeing business men undertook to construct a harbour, and to deepen the channel in Lake St. Peter.

Their lessons were gained from the successes in taking ocean navigation up the Clyde, which had been a shallow stream, to Glasgow.

Dredging on the St. Lawrence commenced in 1850. The plant had been designed and the machinery made in Scotland.

From 10 feet in 1850, the channel had been deepened in 1888 to 27½ feet at ordinary low water, over a length of river requiring dredging of about 50 miles, the work being carried on departmentally by the Harbour Commissioners of Montreal.

In 1888 the Government of Canada, recognizing the St. Lawrence as the national route of Canada, assumed the debt incurred with respect to the channel, and opened the waterway free to the shipping of the world.

The Government in 1899 undertook as well the task of deepening the channel about 4 feet, to obtain a depth of 30 feet at the lowest stage of river level recorded, and of widening, straightening, and marking the channel with the most modern systems of Aids to Navigation.

In 1907 the channel was opened to commerce, with a depth of 30 feet, the actual lowest recorded depth that season being 31 feet 10 inches, and with a magnificent system of lights, buoys, signal service, and swept channel.

The standard curves are easy and the width ample, as compared with any other artificial navigable waterway of the world.

The sketches (*see* pages 161, 162) show to the same scale a comparison between the cross sections and curves of the River St. Lawrence Ship Channel, as compared with those of the noted maritime highways of the world.

Montreal Harbour and the St. Lawrence has had a bad name. It is unfortunate that in Canada misfortunes are advertised. The facts and actual records show to the contrary, and the St. Lawrence should be known as one of the most advantageous routes in the world.

The St. Lawrence, with the whole of the Great Lakes navigation, amounting to 60,000,000 tons per annum, is closed by ice from December 1st to April 20th of each year. This situation is accepted on the Great Lakes, which are the feeders to the shipping of the St. Lawrence. When the Lakes are open the ocean ships are in the Montreal Harbour, ready for the trade.

During the open season, the St. Lawrence has splendid weather conditions, and is notably adapted to navigation.

Fogs are very rare in the whole of the contracted part of the river from Murray Bay, 235 miles below Montreal, right up to the Harbour.

In 30 years only two ships have been totally lost between Quebec and Montreal.

Groundings, which are so well advertised, are not frequent. The reports of 1906 state that between Montreal and Quebec the loss due to navigation accidents did not amount to one thousand dollars, although about 3,000 ocean vessels, of a combined tonnage of about 6,000,000 tons passed up and down during the seven-months of open season.

The records of the accidents on the St. Lawrence give the causes about equally divided between faults due to the machinery of the ship, and errors of the pilots.

None of the accidents whatever in recent years have been due in any measure to the channel.

THE HARBOUR.

In the consideration of Montreal as a position for a great port, except for its winter season, it would be regarded as an ideal situation, according to the best British and Continental practice.

1. It is as far inland as it is possible for ocean navigation to go.
2. It has a splendid channel approach and a dredging plant and organization for navigation at least equal to any in the world.
3. The navigable conditions are excellent.
4. It is on the direct line of the great Summer trade route of North America.
5. It is the most advantageous ocean port for a large section of the North American Continent's most productive area.
6. It is a route which, with its up to the present meagre facilities, has successfully held its own with the Buffalo-New York route.
7. It is the eastern terminus of the St. Lawrence Canal System, giving 14 feet navigation from Montreal to Port Colborne. From Port Colborne the depth is 20 feet to Buffalo, Cleveland, Detroit, Chicago, Sault Ste. Marie, Fort William, and Duluth, a total distance of 1,400 miles.
8. Montreal is the railway centre of Canada. Trunk lines extend in every direction, and three trans-continental lines reach ocean navigation in the harbour.
9. Physically, Montreal is favourable for the construction of a port.
10. The water is free from sediment, and constant dredging is not required.
11. The whole of the water front and river bed is controlled by the Port Authority.

SESSIONAL PAPER No. 21c

12. The Harbour is in the heart of the business section of the city.
13. The railway connections with the docks are the best on the continent.
14. The great transportation companies of Canada, both rail and water, have their headquarters in Montreal.
15. The trade by the St. Lawrence to Montreal is now nearly 30 per cent of the total commerce of Canada, including the trade with the United States.
16. The present situation of Montreal as regards the port, is as follows:—

Vessels per Annum.	INWARDS AND OUTWARDS COMBINED.	
	Number.	Tonnage.
Sea-going.....	2,400	5,000,000
Inland.....	25,000	6,000,000

The capital expenditure on the port to date is approximately the amount of the bonded debt, viz., \$10,000,000.

The depth of water in the harbour and its approach is 30 feet at lowest water, or 31 feet 10 inches at the lowest stage reached in 1907.

The total shed area is 20 acres, to be doubled in 1909.

There are no tonnage dues on vessels.

The revenues are chiefly derived from wharfage rates on the goods and rentals of space.

Pilotage to the port is compulsory, and controlled by the Government of Canada.

The Port Authority is a Commission composed of three members appointed by the Government of Canada, subject to the approval, in the matters of expenditure, to the Minister of Marine and Fisheries.

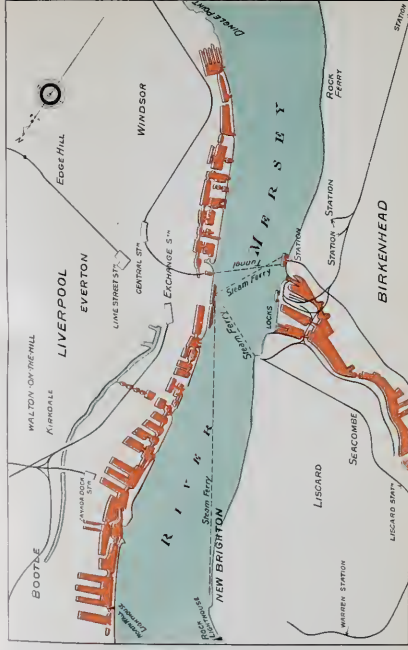
CONCLUSIONS.

Reference need only be made to the description of the eleven principal ports of Great Britain and Europe, in these pages, and a comparison with the physical, natural, and trade advantages of Montreal, to complete the favourable decision regarding the future of the Port of Montreal, and of the necessity of taking immediate steps in a careful and comprehensive way of development for the future.

The following sketches give an approximate idea of the extent of dock and shipping accommodation in some of the important ports, as compared with the Harbour of Montreal.

PORT OF LIVERPOOL.

PORT OF LIVERPOOL. FROM ROCK LIGHTHOUSE TO DINGLE POINT.

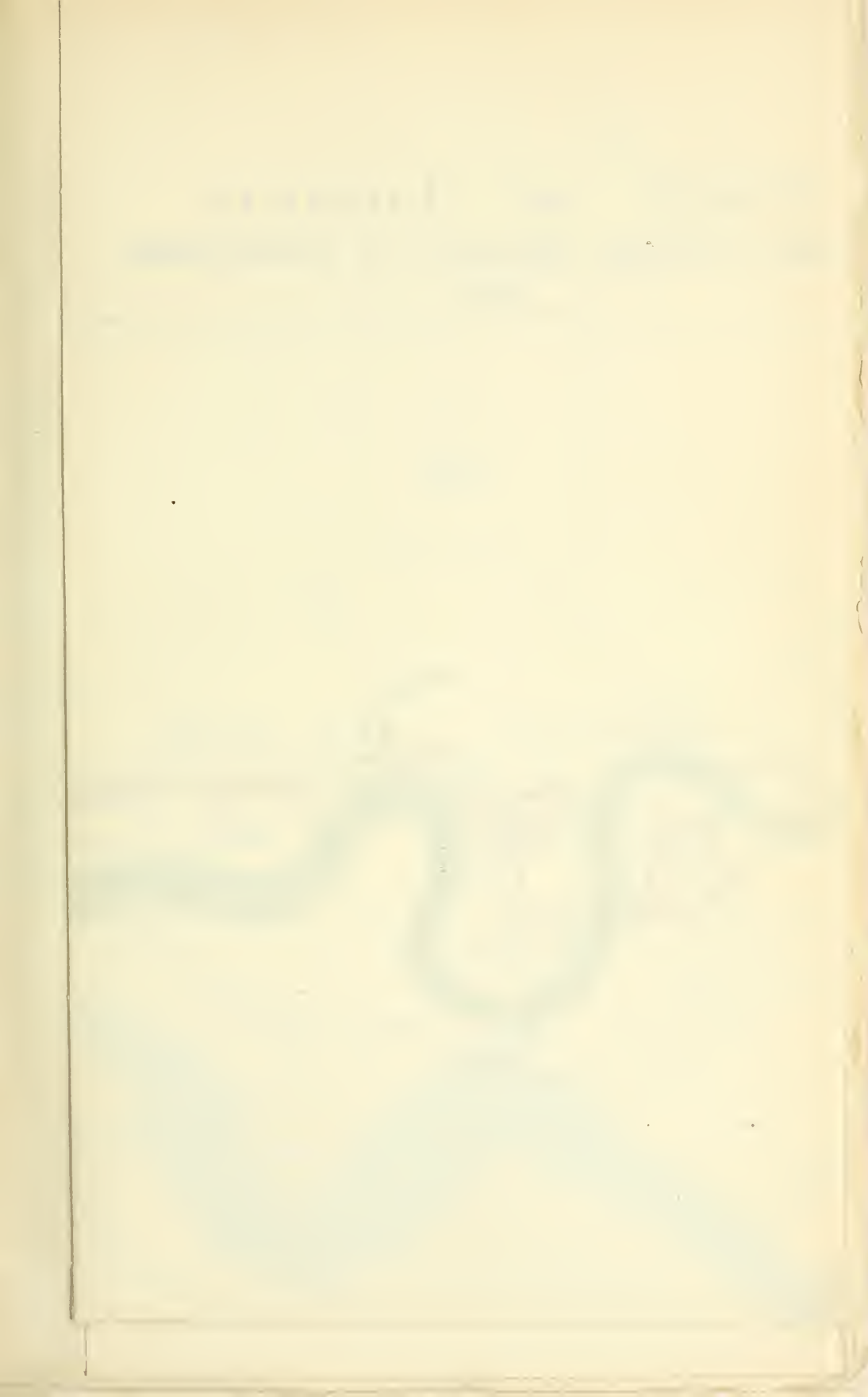


PORT OF MONTREAL FROM VICTORIA BRIDGE TO LONGUE POINTE.

Quays & protected basins in Red.

1907.



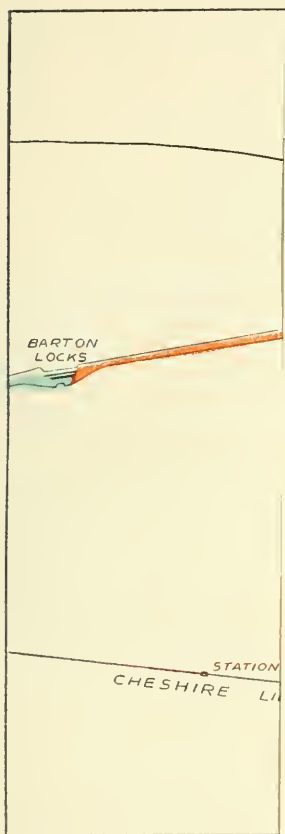


PORT OF LONDON FROM LONDON BRIDGE TO GRAVESEND.

1907.

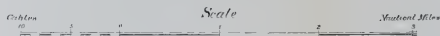


PORT OF GLASGOW



Chesh Li
10

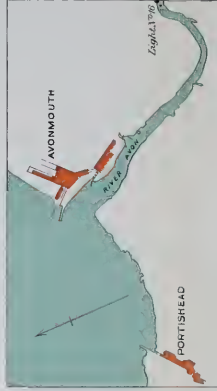
MANCHESTER DOCKS.



PORT OF BRISTOL.

PORT OF BRISTOL.

1907.



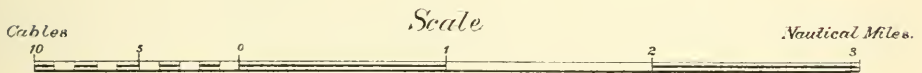
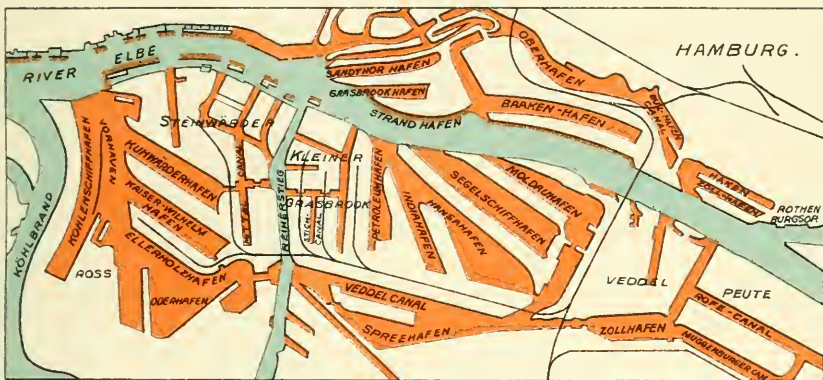
PORT OF CARDIFF.

BUTE DOCKS.

1907.



Cardiff
Bristol
Swansea
Windsor, Wales

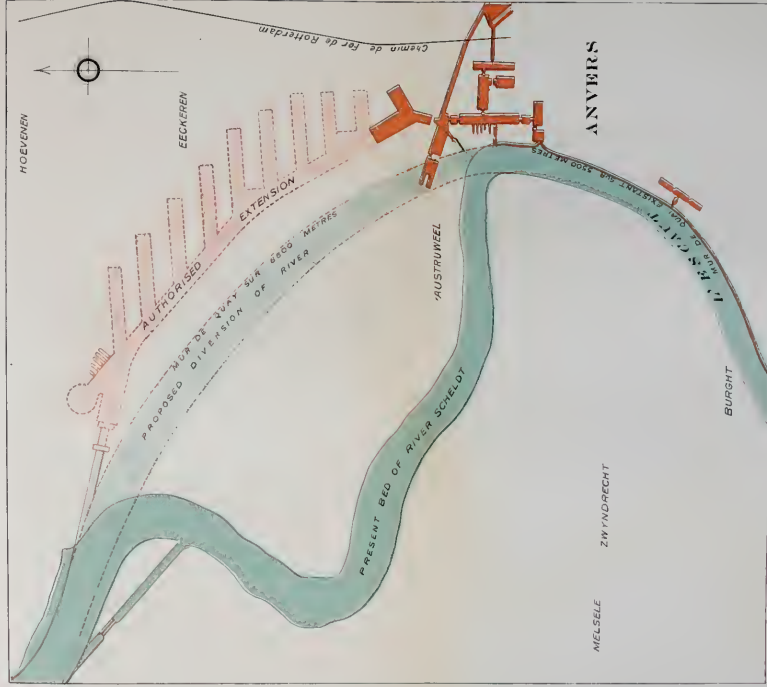




THE PORT OF ANTWERP.

AUTHORIZED EXTENSION & PROPOSED DIVERSION OF RIVER.

1907.



Scale

Scale

Scale

PORT OF MARSEILLE.

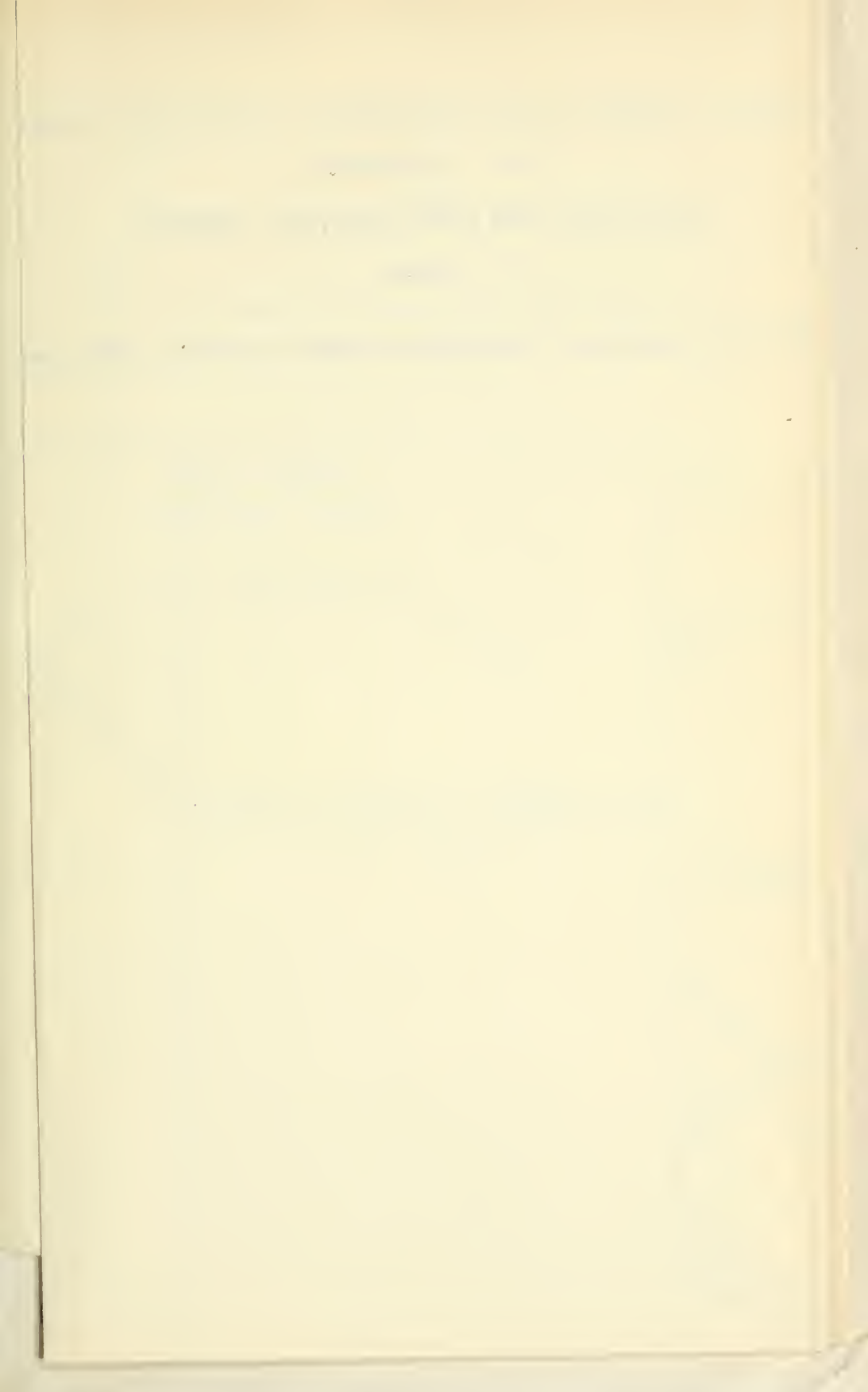
FRANCE.



PORT OF HAVRE.

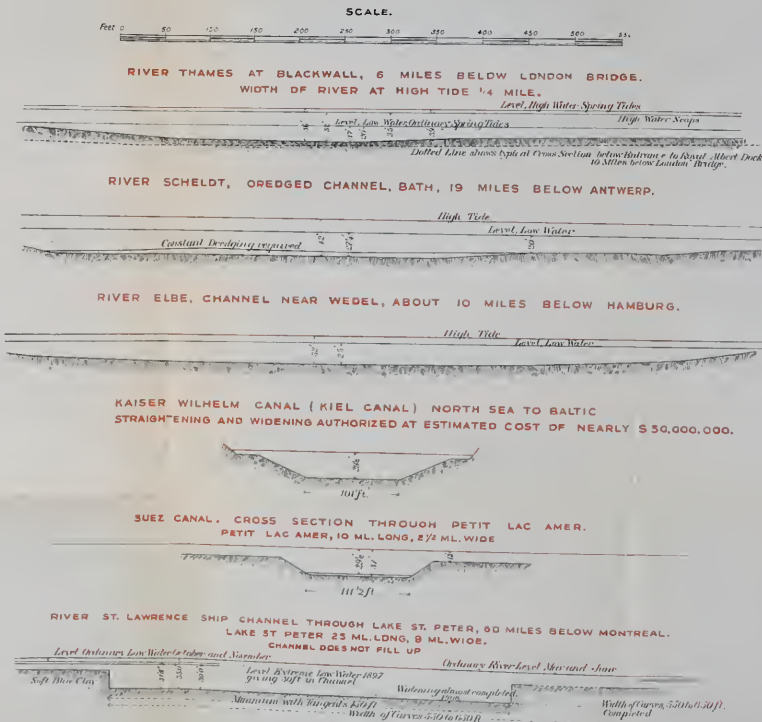


Scale
Nautical Miles



TO ACCOMPANY REPORT TO THE MINISTER OF MARINE AND FISHERIES
OF CANADA
ON
BRITISH AND CONTINENTAL PORTS
1908.

COMPARATIVE CROSS SECTIONS OF IMPORTANT RIVER CHANNELS AND CANALS.



FORTIETH ANNUAL REPORT

OF THE

DEPARTMENT OF MARINE AND FISHERIES

1907

FISHERIES

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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

1907

*To His Excellency the Right Honourable SIR ALBERT HENRY GEORGE, EARL GREY,
Viscount Howick, Baron Grey of Howick, a Baronet, G.C.M.G., &c., &c., &c.,
Governor General of Canada,*

MAY IT PLEASE YOUR EXCELLENCY :

I have the honour to submit herewith, for the information of Your Excellency and the legislature of Canada, the Fortieth Annual Report of the Department of Marine and Fisheries, Fisheries Branch.

I have the honour to be,

Your Excellency's most obedient servant,

L. P. BRODEUR,

Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES,

OTTAWA, November, 1907



ALPHABETICAL INDEX

TO THE

FISHERIES REPORT

1907.

A

	PAGE.
Alberta, report of Inspector.....	207, 211
Antigonish County, N.S., returns.....	56
Areas—extent of water—or coast.....	xxv
Armstrong, Wm., Hatchery officer, Newcastle, Ont.....	261

B

Baldwin's Mills, rearing ponds.....	265
Bait Freezer system in Canada.....	xl
Bait, cold storage of, by Peter Macfarlane.....	287
Black Bass, breeding ponds.....	244
Barker, Wm. H., Hatchery Officer, B.C.....	256
Bay View lobster hatchery, N.S.....	276
Bedford hatchery, N.S.....	273
Behring Sea Question, remarks.....	xl
" Sealing Fleet of 1906.....	229
Belliveau, A. H., Inspector's reports.....	xlix, 147
Bertram, A. C., Inspector of Cape Breton Island, reports.....	xlii, 30
Biological Marine Stations.....	xix
" Lake " Georgian Bay and in B.C.....	xxi
Block House Point Hatchery, P.E. Island.....	279
Bon Accord Hatchery, B.C.....	248
Bonaventure County, P.Q.....	144, 150
Bounties Fishing Regulations.....	1
" Statement of claims received and paid, 1906.....	3
" General remarks.....	xxvi, 6
" Statement of claims received and paid since 1882.....	7 to 11
" Statement of all vessels receiving bounties, 1906.....	12 to 29
British Columbia, Fisheries Commission.....	xiv
" Reports on fisheries by Inspector C. B. Sword.....	213
" Reports by Inspector J. T. Williams.....	214
" Reports by Inspector E. G. Taylor.....	216
" Reports on fish culture.....	218 to 256
" Seal catch in 1906 and 1907.....	229
" List of Salmon canneries and pack for 1906.....	220, 221
" Statements of catch and fishing material.....	230, 231
Bureau, Fisheries Intelligence.....	319

C

	PAGE.
Calder, J. F., Inspector, N.B.	xliv, 102
Canso, Lobster hatchery, N.S.	277
Carmichael, Alex. G., report on hatchery (C.B.).....	275
Carp, its utilizations.....	181
Cape Breton Island. (<i>See</i> Nova Scotia District No. 1) also County.....	30, 37
Capital invested in the fisheries of Canada.....	xxxv
Catellier, L. N., report on fish culture.	266
Chapman, R. A., Inspector, N.B., reports	xlv, 105
Charlotte County, N.B., reports of overseers, &c.....	104, 111
Coast—extent of Canadian Coast line.....	xxv
Cod, remarks on.....	143
Colchester County, N.S., statistics of fish	58
Commissions, Dominion Fishery	xiv, xvi
Cowie, J. J., <i>re</i> herring curing.....	xxii
Cruisers, Canadian list of	299
Culture of fish. (<i>See</i> 'F').	
Cunningham, F. H., Supt. of Hatcheries, report	241
Cumberland County, N. S., fishery returns.....	60

D

Deseve, A. L., Hatchery officer at Magog.....	263
Digby County, returns.....	88
Dogfish, remarks on.....	33
Drying fish scheme at Souris, P.E.I.....	xxlv
Duncan, A. G., Inspector, Ont.....	1

E

Expenditure of Fishery Services.....	xxv, 350
" Subdivision by provinces.	351
" Fish culture.....	352
" Fisheries Protection Service.....	356
" Comparative statement.	369
Export of fish from Canada.....	xxix

F

Fish culture.....	xxxix
" Report on, for 1907, by Prof. Prince, Dominion Commissioner.....	232
" " F. H. Cunningham, Supt.....	241
" Lobster ponds and hatcheries	279, 277, 276, 272
" <i>Re</i> New hatcheries	233
" Reports of officers in charge of hatcheries.	248
" Hatcheries in Nova Scotia.....	273
" " New Brunswick.....	268
" " Quebec.....	263
" " Ontario	258
" " Prince Edward Island.....	278
" " British Columbia.....	248 to 256
" Expenditure.....	352
" Oyster cultivation. (<i>See</i> letter 'O').....	281
Fisheries Protection Service	xl, 299
Fishery officers, staff	xli, 362
" Bounties. (<i>See</i> letter 'B').	
" Statistical statements (<i>See</i> letter 'S').	
" Season of 1907, remarks on	xlii
Fraser River, B.C., hatchery (or Bon Accord).....	248
Fry, distribution of	235
" Recapitulation since 1873.....	236
Fundy Bay, Fisheries.....	102

SESSIONAL PAPER No. 22

G

Gaspé Hatchery.....	268
" County, P.Q.....	144, 152
Georgian Bay Fishery Commission.....	xvi
Georgian Bay Biological Station.....	xxi
Gloucester County, N.B., returns.....	116
Gourdeau, F., Lt.-Col., Deputy Minister's Report.....	xiii
Grand Manan fisheries.....	104
Granite Creek Hatchery.....	251
Guysborough County, N.S.....	62, 67

H

Halibut, remarks on.....	216
Halifax County, N.S., reports.....	68
Harris, W. F., Hatchery officer, Bay View N.S.....	276
Harrison, H. E., Fishery Inspector reports.....	xli, 107
Harris in Lake Hatchery, B.C.....	249
Herring, improvement in curing and remarks.....	xxii, 33
Hockin, R., Inspector's reports.....	xliii, 39
Hurley, J. M., Inspector's report.....	xlix
Holroyd, A. W., Hatchery officer, P.E.I.....	278
Hooker, F. W., Hatchery officer, Manitoba.....	256, 257

I—J

Inspectors of Fisheries, No. (See Staff).....	362
" " Reports from. (See each Province).....	
Inverness County, N.S., returns.....	36, 52
Johnson, J. A., Hatchery officer, B.C., report.....	248

K

Kemp, Ernest, oyster expert's report.....	231
Kent County, N.B., returns.....	116

L

Lake Superior.....	184
" Huron.....	186
" Erie.....	188
" Ontario.....	190
" of the Woods.....	184
" St. Jean, Que.....	147, 176
Lakes in Alberta.....	208
LeBlanc, Nap. S., Hatchery officer at Shemogue.....	273
Le Vatte, Hy. C., <i>re</i> lobster ponds in C.B.....	279
Lindsay, Robt., Hatchery officer, Gaspé.....	268
Lobster industry, remarks on.....	xxxvii, 31, 41, 143
" hatcheries, N.S. and N.B.....	272, 273, 276, 277
Lobster ponds.....	279
Lunenburg, fishing fleet.....	80
" County, returns.....	81

M

Magog Hatchery, Que.....	263
Marine Biological Stations report.....	xl, v
Magdalen Islands.....	145, 156
Manitoba Lake.....	197, 200
Manitoba, report and statistics of Fisheries by Insp. W. S. Young.....	196
Margaree Hatchery, C.B.....	275

M—*Concluded*

Matheson, J. A., Inspt. P.E.I., report.....	xlvi, 130
Meagher, James, Hatchery officer, Canso, N.S.....	277
Miller, E. W., Inspector, N.W.T. reports.....	li, 202
Miramichi Hatchery, N.B., report.....	271
Missisquoi Bay fishing.....	148, 174
Mitchell, D. S., Hatchery officer, B.C.....	251
Movements of fishes by Prof. Prince.....	lix
Mowat, Alex., Hatchery officer at Restigouche, N.B.....	268
McCluskey, Chas., Hatchery, officer, report.....	270
Macfarlane, Peter, Report on the bait cold storage.....	287
Mont-Tremblant Hatchery, Que.....	264
Museum, Fisheries, report on its exhibits by curator Halket.....	321

N

New Brunswick, Report on District No. 1, by Insp. J. F. Calder.....	xlvi, 102
" " " 2, " R. A. Chapman.....	xlvi, 105
" " " 3, " H. E. Harrison.....	xlvi, 107
" Synopsis of Fishery Overseers' reports.....	104, 109
" Statistics of Fisheries District 1, 2 and 3.....	111, 116, 122, 124
" Recapitulation of Yield and Value of Fish.....	126, 128
" " Fishing Materials.....	124, 129
" List of Vessels receiving bounties.....	23
Newcastle, Ont., Hatchery, report.....	261
Nimkish Hatchery, B.C.....	256
N. W. Territories, Statistics of Fisheries (<i>See</i> Alberta and Saskatchewan).....	
North Shore Division, P.Q., reports.....	145
Northumberland County, N.B., returns.....	116
Nova Scotia, Report District No. 1, A. C. Bertram.....	xlii
" " " 2, R. Hockin.....	xliii
" " " 3, A. C. Robertson.....	xliii
" Statistics of Fisheries Districts Nos. 1, 2, 3.....	46, 56, 79
" Recapitulations, Yield and Material.....	96, 100
" List of Vessels receiving bounties.....	12

O

Ontario remarks on fisheries.....	180
" statistics of Fisheries.....	184
" statement of fishing materials.....	192, 195
Oyster Culture report, by Mr. E. Kemp.....	281
Ogden, Alfred, Hatchery officer, N.S.....	273
Ottawa Hatchery.....	259

P

Parker, Wm., hatchery officer, Sandwich, Ont.....	258
Pemberton Hatchery, B.C.....	250
Ponds for breeding fish.....	265, 279
Prince Edward Island, Report on fisheries, Inspector, J. A. Matheson.....	130
" Statistics of Fisheries.....	132
" " Fishing Material.....	141
Prince, Prof. E. E., Commissioner, report on Fish Culture.....	232
" " Marine Biology.....	xix
" " Special articles on :—	
" " 1. The local Movements of Fishes.....	lix
" " 2. Unutilized fishery products in Canada.....	xvii
Protection Service.....	299

SESSIONAL PAPER No. 22

Q.

Quebec, Reports on the Gulf St. Lawrence, by Dr. Wm. Wakeham.....	142
" " Inland Divisions, by A. H. Belliveau and Jos. Riendeau.....	146, 147
" Statistics of Fisheries for Gulf Division.....	150
" " " Inland Divisions.....	172, 177
" Recapitulation of yield of fisheries and materials	178, 179

R.

Revenue, statements of	359
" Comparative statement of.....	360
Report of Deputy Minister.....	xiii
Report of Inspectors. (See also each province)	
Restigouche hatchery, N.B.....	268
Richmond County returns	38
Riendeau, Joseph, Inspector's report	lviii, 146
Rivers Inlet Hatchery, B.C.....	257
Robertson, A. C., Inspector, reports	xlili, 43
Robertson, Alex., Officer Pemberton Hy., B.C.	250
Robert, Alphonse, Hatchery officer, Que.....	264
Robinson, Thos., Hatchery office, Harrison Lake, B.C.	249
Roxbury, Wm., Hatchery officer, B.C.....	248

S.

St. John River, District, N.B.	122, 124
" Hatchery, N.B.....	270
Sandwich Hatchery, Ont.....	258
Saguenay County, North Shore.....	145
Salmon, remarks on.....	
Saskatchewan, reports and statistics by Insp. E. W. Miller.....	202, 206
Scottish methods of curing herring	xxii
Seals, Behring Sea, remarks.....	
Selkirk Hatchery, Manitoba.....	257
Sheasgreen, Isaac, officer Miramichi Hatchery, N.B.	271
Shelburne County returns.....	84
Shemogue Lobster Hatchery, N.B.....	273
Sheppard, O. B., Inspector, Ont., report	1
Shippigan Lobster Hatchery, N.B., officer 'Savoy'.....	272
Skeena River Hatchery, B.C.....	252
Spain, O. G. V., Commanding Marine Service of Canada.....	299
Special Reports by Prof. E. E. Prince.....	lix
Staff, Outside officers.....	362
Statistics of Fisheries. (See each province)	
Statements recapitulating the value of fish since 1870.....	xxxiv
" " Fishing gear, &c.....	xxxvi
" " Number of fishermen.....	
" The catch of fish in detail. (See each province).....	xxxviii
Storage of Bait frozen.....	287
Sword, C.B., Inspector, B.C.	lii, 213

T.

Tadousac Hatchery report.....	266
Taylor, E. G., Inspector, reports.....	liii, 216, 256

U.

United States, fishing vessels, <i>Modus Vivendi</i> licenses.....	300
Untutilized fish products in Canada by Prof. Prince	xvii

V.

Value of Fisheries. (See also each province).....	xxvi
Victoria County, N.S.....	37, 50

W.

Walker, John, Hatchery officer, report.....	259
Wakeham, Wm., M.D., reports on Gulf St. Lawrence fisheries.....	xlvi, 142
Westmoreland County, N.B., returns.....	116
Windsor Hatchery, N.S.....	275
Winnipegosis Lake.....	197, 201
Williams, J. T., Insp. of Fisheries Northern B.C., reports.....	214
Whitwell, Thos., Hatchery officer, B.C.....	252

Y.

Yarmouth County returns.....	86
Young, Wm. S., Inspector, Manitoba, reports ..	li, 196
Young, Harrison S., Inspector, N.W.T., reports.	li, 207

REPORT OF THE DEPUTY MINISTER.

To the Honourable L. P. BRODEUR,
Minister of Marine and Fisheries.

SIR,—I have the honour to submit the fortieth annual Fisheries Report of this department for the fiscal year ending on March 31, 1907.

The usual statements of expenditure and revenue, as well as the reports from the various inspectors of fisheries are given, as well as reports on fish-culture, oyster culture, bait cold storage, &c., and a resumé of the work done at the Marine Biological station located in the estuary of the St. Lawrence, opposite Seven Islands; the St. Andrews station on the Passamaquoddy waters of southern New Brunswick at the entrance of the St. Croix river, the Pacific station, Departure bay, near Nanaimo, B.C., and the lake station at Georgian bay, Ontario, is also included.

Appended to this report are two special articles by Professor E. E. Prince, Commissioner of Fisheries for the Dominion, 1st, 'The local movements of fishes,' and 2nd, 'The unutilized fishery products in Canada.'

The appendices referred to above are as follows:—

No. 1. Fishing Bounties.

2. Nova Scotia Fisheries.

3. New Brunswick Fisheries.

4. P. E. Island “

5. Quebec “

6. Ontario “

7. Manitoba “

8. Saskatchewan “

9. Alberta “

10. British Columbia “

11. Fish-breeding Operations.

12. Bait Cold Storage.

13. Fisheries Protective Service.

14. Fisheries Museum.

15. Fisheries Expenditure and Revenue.

16. List of Fishery Officers (outside staff).

BRITISH COLUMBIA FISHERIES' COMMISSION.

The details of the progress made by this commission, consisting of Professor E. E. Prince, chairman; Mr. Campbell Sweeney, Vancouver; Rev. G. W. Taylor, Wellington; Mr. J. P. Babcock, Victoria; Mr. Richard Hall, Victoria, and Mr. J. C. Brown, New Westminster, with Mr. J. Charles McIntosh, Victoria, secretary, were given in the department's (Fisheries) report last year, and the evidence taken at the sittings, the records of the International Mutual Conferences with the State of Washington Special Commissioners, the reports of the various sub-committees, and the memorials, petitions and other representations laid before the commission, formed a basis for the framing of the commission's final report. This report in draft form comprised three parts, first, a general review of the fishery resources, the fishing industries of the province of British Columbia, and comments on the more important aspects of the fisheries of the Pacific coast of Canada; the second part embraced suggested amendments of existing statutes affecting these fisheries and fishing industries, and the third part consisted of a complete and revised code of regulations designed to supplant the existing code, and thus to establish a more concise, appropriate and effective set of fishery regulations.

Each of the Commissioners was provided with a printed copy of the evidence taken at the public sittings of the commission, and a verbatim report of the International Conference in Seattle in November, 1905, as well as reports of certain important executive sittings in Vancouver, and the opportunity was thus afforded of reviewing the evidence offered, and of noting all the more important points raised during the investigations of the commission.

When the executive sittings for the present year were resumed in Victoria on July 10, in the rooms kindly placed at the service of the commissioners by the Board of Trade of Victoria, everything was in readiness for promptly deciding upon the action which the commission might feel justified in taking.

These executive sittings were proceeded with on July 11 and 12, and on the 18th, 19th, 20th, 23rd and 24th. Two members of the commission were absent, but Mr. Babcock returned to Victoria from the official work, which had detained him, and took part in the sittings on the 23rd and 24th, but Mr. Campbell Sweeney, who had spent the summer in Europe, on account of ill-health, had not returned to British Columbia. At these sittings all the points in the draft report, which formed the basis of discussion, were reviewed, and to facilitate such discussion, and to render possible unanimous decisions, by accepting, modifying or rejecting, the suggestions in the draft, as pointed out by Professor Prince, who had supplied each commissioner with a copy. The sittings were held in the morning and afternoon of each day, and at the conclusion of the review and discussions arising out of it, the four commissioners, Messrs. Prince, Hall, Taylor and Brown, signed the report so that it might be forwarded to Ottawa in accordance with the wishes of the Honourable the Minister (Hon. Mr. Brodeur) and the Acting Minister (Hon. Mr. Templeman). The fifth commissioner present when the report was signed (Mr. Babcock) stated that he had not had the opportunity of going over the report as his copy had not reached him in due course, hence he did not append his signature, and Mr. Sweeney was absent in Europe and could not then do so.

SESSIONAL PAPER No. 22

This report, Part I. of the complete report of the commission, after signature, was mailed to Ottawa, and received by the acting minister in the absence of the Honourable the Minister. The commission then adjourned until August 13, as it was reported that Mr. Sweeney would by that date have returned. Part II. of the report, covering such amendments to the statute as appeared necessary, was then taken up, and the consideration of the proposed changes was continued on August 14, and great progress was made. A further adjournment then took place and the Deep Sea Fisheries sub-committee of the commission (Professor Prince and Rev. George W. Taylor) proceeded to the north end of Vancouver island, and dredged and made tests of a technical nature in various localities, especially in Quatsino sound and at Hope island (Bull harbour) and near Cape Scott. On returning to Nanaimo the sub-committee had the pleasure of finding Professor Ramsey Wright, of Toronto, Dr. Field, of the Massachusetts Fish Commission, and Mr. Delano, of Boston, the State Commissioner of Fish and Game for Massachusetts, awaiting them. The party visited interesting localities and fishing stations in Departure bay, and inspected the site of the Marine Biological Station, now being erected in accordance with the strong recommendation of the British Columbia Fisheries Commission. The actual site, it may be added, has been generously granted by Mrs. Dunsmuir, through the kind offices of His Honour Lieutenant Governor Dunsmuir, but a tract of land in addition has been secured for sea-water ponds and experimental purposes.

On August 27, the commission resumed its executive sittings in the Board of Trade Rooms, Victoria. The final draft of Part II. was then completed and the commission decided to forward it to Ottawa, in order that steps might be taken, in ample time for legislation, at the approaching session of the Dominion parliament, if the Honourable the Minister decided to at once carry out the urgent recommendations of the commission *re* revision of certain statutory provisions. It was decided that, as one commissioner, Mr. Campbell Sweeney, was still absent, the suggested new set of British Columbia Fishery Regulations might be held over, and given full consideration at a later date. It was pointed out that whereas Part II. of the report, which had just been completed, was urgent, and might be too late for including in the legislation during the parliamentary session if delayed, that Part III., covering proposed new regulations, could be discussed later, and forwarded subsequently, inasmuch as the authority of an order in council would suffice for giving them the force of law; hence the commission completed Parts I. and II., and left Part III. over for consideration at sittings to be arranged for on dates prior to the close of the year. As a matter of fact, these final sittings of the commission will be held during the early part of November, and the draft code of new Fishery Regulations appropriate to replace the existing set of regulations will be discussed, decisions reached, and a concluding report signed and forwarded to the Honourable the Minister.

It is highly satisfactory to note that the principal points in Part I. of the report, signed and forwarded to Ottawa, were printed *in extenso* in the various daily newspapers on the Pacific coast and highly laudatory notices appeared in some of the most important journals. 'The government which sent this commission to British Columbia,' said one newspaper, 'deserves well of the country,' and surprise was expressed at the

7-8 EDWARD VII., A. 1908

amount of new information *re* the fishery resources of the Pacific waters of Canada; it was declared, indeed, that the report 'would be a revelation to most people in the province.' As Professor Prince, chairman of the commission, said when opening the public sessions for taking evidence in Victoria, B.C.: 'There have been previous fishery commissions appointed by the Dominion government, but no previous commission has had quite so large a field defined for its investigation as this, because, not only is the salmon industry in all its various phases included in the work of the commission, but the international bearings of that industry are included too. And in addition to that, the developing of the deep sea and coastal fisheries are included, so that it is apparent that the work of the commission is of great magnitude, and very great importance. It is clear, therefore, that all available information is desirable in order to guide the commission to wise and useful conclusions so that it may make recommendations of value to all concerned.

'The order in council authorizing this commission dated July 22, 1905, points out that the necessity for a commission to make an investigation into the present state of the Canadian fishing industry on the Pacific coast has appeared urgent. That representations have been made in favour of a commission of inquiry, especially in view of the crisis which has been reached on account of the one-sided arrangement which has existed for some years between Canada and the United States in the contiguous waters of Puget sound and the Straits of Georgia. A one-sided arrangement, because while Canada has been carrying out a somewhat elaborate system of protection, there was for some years very little done in the adjacent state of Washington on these lines, and a feeling of dissatisfaction has arisen owing to this unfair and one-sided system of fishery regulation. The commission is authorized to make full inquiries into all matters affecting the fisheries, and to obtain information from all possible sources in order to submit a scheme of regulations which will best preserve, protect and develop the fishing industries of British Columbia.'

GEORGIAN BAY FISHERY COMMISSION.

The commissioners appointed to investigate the fisheries of Georgian bay and certain other western Ontario waters, viz.: Mr. John Birnie, K.C., of Collingwood; Mr. James J. Noble, of Little Current; and Professor Prince, Dominion Commissioner and General Inspector of Fisheries for Canada, have continued their important and extensive labours during the past season, and have now only the eastern waters of Lake Erie to visit, and some evidence to take at Blind River and Sault Ste. Marie before drawing up their final report.

As stated in the department's report (Fisheries) for 1906, the commission had almost completed the work, with which they were originally charged by the order in council, approved by His Excellency the Governor General on August 6, 1905. but owing to additional onerous duties added by authority of orders in council dated, respectively, April 18, 1906, and August 14, 1906, a further special series of sittings became necessary in order to secure additional information from the fishermen, fishing firms, and parties concerned in the Squaw island question. The Squaw island

SESSIONAL PAPER No. 22

fisheries investigation was promptly completed, and a report and recommendations to the Honourable the Minister were drawn up, and the documents only await signature by the members of the commission before submission to the Honourable the Minister. Later a somewhat extensive addition to the commissioners' programme of inquiry was made by the inclusion in its investigations of the waters of St. Clair river, St. Clair lake, Thames river, Detroit river, and Lake Erie from Amherstburg to Niagara. These waters had been previously visited by two important commissions, viz.: the Dominion Commission of 1892, consisting of Mr. Edward Harris and the late Mr. S. Wilmot; and in 1896 by the International Fishery Commission, on which sat as commissioners Dr. William Wakeham, representing Canada by authority of a Royal Commission from the Sovereign, and Dr. Richard Rathbun, of Washington, D.C., by authority of the President and the government of the United States.

The present Dominion Commission, after an executive sitting in Ottawa in March, arranged for a series of sessions commencing on July 20. The series continued until the middle of October, and it is probable that in December executive sittings will be held to summarize and review the evidence with a view to completing a report on the Georgian bay fisheries as a whole. The Lake Erie report will be completed as soon as possible thereafter.

It is hardly necessary to point out that since the two commissions of 1892 and 1896, the conditions surrounding the western Ontario fisheries have materially changed. Not only has their immediate superintendence passed from the hands of the Dominion Government to the hands of the Provincial Government in Toronto, but the fisheries themselves have altered in a variety of ways. The evidence taken at the long series of sittings held during the past summer and fall, and the personal visits of the commissioners to the nets while fishing operations were proceeding, as well as the visits to the freezers, fish houses, &c., at the various fishing centres, has resulted in the accumulation of a large amount of new material, and of information which cannot fail to be of immense advantage to the Honourable the Minister and to the Fisheries Department at Ottawa. With this inclusive and detailed information on the most recent phases of the great lakes fisheries the Honourable the Minister will be inevitably aided in reaching just and proper conclusions in the complex questions which the commissioners have investigated. The reports of the commission are fourfold, viz.: the Georgian bay fisheries with reference chiefly to local needs and fish and game clubs, a report upon which was laid before the Honourable the Minister last year, unanimously signed by the commission; second, the Squaw island question upon which a report is completed, and about ready for presentation; third, a report on the commercial fisheries of Georgian bay and the north channel to be completed, if possible, early in December; fourth, a report upon the fishery questions now under discussion in Lake Erie.

The vast extent of the commission's work, as amplified by the two orders in council referred to, is indicated by the area covered by the sittings which were arranged as follows:—

Windsor, July 23 and 24.

Stony Point, July 29.

Chatham, July 31 and August 1.

7-8 EDWARD VII., A. 1908

Wallaceburg, August 3.
Port Lambton, August 6.
Sarnia, August 8 and 9.
Point Edward, August 10.
Sandwich, August 14.
Amherstburg, August 16.
Kingsville, August 19.
Leamington, August 21.
Point Pelee, August 23.
Pelee Island, August 24.
Wheatley, August 28.
Romney, August 29.
Port Alma, August 31.
Dealtown, September 2.
Rondeau, September 21.
Ridgetown, September 24.
Port Talbot, September 25.
Port Stanley, September 27.
Dutton, September 30.
Port Bruce, October 1.
Port Burwell, October 3.
Clear Creek, October 4.
Port Royal, October 4.
Port Rowan, October 5-8.
Long Point, October 7.

It may be pointed out that, at Port Lambton, the commissioners visited the seining grounds and had the opportunity of seeing the nets being hauled, while near Sarnia the pound-nets on the Canadian and the United States' shores were examined while operating. From Amherstburg the seines near Bar point were inspected and the catches of fish noted, while at Leamington the nets along the shore of the lake were visited. During the commission's visit to Rondeau the pound-nets on the outside a lake shore were visited while the process of lifting was being carried out. At Port Bruce, on October 1, the fish houses were inspected and the gill-nets examined, while at Port Burwell the fish houses were visited when the seine catches were brought in, and some of the seining grounds on the south shore of Inner bay, Long point, were visited, but the weather was too rough to allow the seines to be hauled. The sittings arranged for October 19 at Blind River, and on October 21 at Sault Ste. Marie, had to be postponed as being most inconvenient to the local fishermen who wished to give evidence. They were postponed to a later date, and the commissioners proceeded to Little Current and Killarney, Ont., to carry out some pound-net tests. A mesh larger than many of the fishermen favour, was inserted at the back of the nets and when the 'pot' was lifted, the nets were visited so that the commissioners could have ocular demonstration of the proportion of small undersized fish that escaped from the pound-net. Three tests were arranged and the commissioners on October 26 and October 28 went out in sail-boats or in tugs to the nets and saw the catches secured. The results

SESSIONAL PAPER No. 22

will be carefully considered when the commissioners meet in executive session early in December to compile their Georgian Bay Commercial Fisheries report.

The work of the commission, it may be added, has excited the liveliest interest in the fishing centres visited, and the press in the localities both on the Canadian and United States sides have given prominent notice to the sittings, reported at length the evidence, and published leading articles on the work accomplished. The following extract from the *Toronto Globe*, July 20, 1907, may be quoted:—

The commissioners consisting of Professor Edward E. Prince, Dominion Commissioner of Fisheries at Ottawa, James J. Noble, of Little Current, and John Birnie, K.C., of Collingwood, have made a most exhaustive investigation into the condition of the fisheries of the Georgian bay and adjacent waters. They visited every fishing station on the bay and personally observed the class of fish which was killed, the style of net which was used, weighing more particularly the advantages of the pound-net and gill-net, and marked other working out of the close season in the different localities. They took the evidence of nearly every fisherman on the Georgian bay and thus will be able to present the Minister a mass of valuable testimony from those who are more particularly interested in the fisheries and can speak with authority on the complex questions involved in the investigation.'

Certain Dominion and United States hatcheries will be visited during the present winter, while in full operation, and after the eight or ten sittings still to be held, have been completed the commission will render its final report and the work will come to a conclusion.

THE BIOLOGICAL STATIONS OF CANADA.

In a country so extensive geographically as the Dominion of Canada it was not to be expected that the two biological stations, the Marine Biological Station, on the Atlantic coast, and the Georgian Bay Biological Station, situated about midway along the great lakes, would be found sufficient to overtake the vast field of fishery and biological work demanding investigation. The work has grown, and with a more adequate appropriation the organization of the researches has also grown. Indeed, during the season now closing, fisheries investigations were on a four-fold scale, viz.: on the north shore of the St. Lawrence, at Seven Islands, on the southern Atlantic shores, Nova Scotia and New Brunswick, on the Pacific coast, around the northern portion of Vancouver Island, and on the east shore especially near Departure bay, Nanaimo.

ATLANTIC BIOLOGICAL STATION.

The Marine Biological Station, which for two seasons had been situated at Gaspé, was towed round in its floating scow to the St. Lawrence in June. Dr. Wakeham, who had brought it in 1905 from Prince Edward Island, arranged to tow it by means of the Canadian government cruiser *Princess*, to its new position. Unfortunately, for some reason, it began to leak, and the scow filled so rapidly that there was no option but to select a suitable spot on the south shore, and beach the station at Grand Valley. This was done, and repairs were afterwards authorized under the department's agent, Mr. J. U. Gregory, I.S.O., of Quebec. Dr. Joseph Stafford accompanied Commander

7-8 EDWARD VII., A. 1908

Wakeham, and after due consideration it was arranged that, in the meantime, the building and scow should remain at Grand Valley, while Dr. Stafford and the staff should make Seven Islands the centre of their fishery investigations. Messrs. Bayne and Scrimgeour, of the University of Toronto; Mr. Smith, of the University of Cambridge, England, resident in Ottawa, and Dr. Stafford, of McGill University, Montreal, curator of the station, carried on the season's work. Mr. Bayne took up the investigation of marine anthrhopoda, of which the food of so many valuable food fishes consists; Mr. Scrimgeour devoted his attention to the hydroid zoophytes; Mr. Smith gave general assistance in dredging, &c., while Dr. Stafford continued his somewhat varied and inclusive studies on the fishes and marine life generally of that portion of the north shore accessible from Seven Islands.

The staff were much hampered owing to the breakdown of the gasoline launch and the whaling station a few miles away could not be visited, though it was anticipated that valuable material for study and new information as to the habits of whales, &c., could have been secured. Dr. Stafford reports that, in his opinion, Seven Islands appears to be so representative of the north shore generally that it would not be very advantageous to carry on work there, unless a place near Belle Isle, really the Labrador coast could be selected, or even St. John's, Newfoundland, where a large amount of valuable fishery work could be done at a centre so important and famous as a great fisheries metropolis. A vessel suitable for visiting the 'Banks' and making deep-sea investigations would enable the staff to do most valuable work, were a location decided upon at some point nearer the Atlantic waters, as suggested by Dr. Stafford.

About the end of September the season's work ended, as the staff had returned to their academic duties, and Dr. Stafford then returned to Montreal.

MARINE BIOLOGICAL STATION, N.B.

The Biological Board had placed before them a very able detailed report upon various Atlantic sites for a permanent station, and in view of the limitations and disadvantages of most of the locations examined and reported upon by the special committee (Professors Penhallow, MacAllum, McBride and Bailey) and certain areas examined by Dr. Stafford at the request of the committee, it was determined to try to secure a site at St. Andrews, New Brunswick. Professor Penhallow, hon. secretary of the Biological Board, was most active and assiduous in carrying out the scheme approved by the board. Many of the best sites, it was found, were possessed by the Canadian Pacific Railway Company, and the president, Sir Thomas Shaughnessy, most generously came to the aid of the board, and he consented to the acquisition of a location for the new station at Joe's Point, not far from the mouth of the St. Croix river. The site is an ideal one, and will afford most convenient access to the sea, a small landing stage and shed alone being necessary, while the buildings, laboratories, library, common room and boarding quarters; as well as the proposed aquarium, store-rooms, &c., are accessible by a specially made drive from the high road near the famous gold links. Much work has been done on the site under the supervision of Professor Penhallow, and the building is now in an advanced state and nearing completion, while a landing stage, suitable boats, water storage tank and other necessary adjuncts are in progress, and will be

SESSIONAL PAPER No. 22

available for next season. Apart from a suitable gasoline launch, the station will require a larger steam vessel for researches on the fishing banks and for dredging in deep water. In the meantime, the board have authorized the necessary preparations to allow of active fisheries investigations next summer, and when completed this Passamaquoddy station will not be rivalled on this continent for convenience and for the great opportunities it will afford for valuable fishery and scientific biological researches.

PACIFIC BIOLOGICAL STATION.

For many years an eminent scientific authority, the Rev. George W. Taylor, F.R.S.C., resident at Wellington, near Nanaimo, B.C., has urged the desirability of a marine biological station for British Columbia. The British Columbia Fisheries Commission in their interim report in 1906 warmly urged the proposal, which has been supported from various influential quarters. Provision was made in the appropriation for biological stations, and this year the station is practically an accomplished fact.

The lively interest of His Honour the Lieutenant Governor of British Columbia (Mr. James Dunsmuir) and the very generous action of Mrs. Dunsmuir, in granting an admirable site on a pretty slope overlooking Departure bay, near Nanaimo, rendered it necessary for the sub-committee authorized to act, merely to secure a small additional tract of land affording ample landing facilities, sites for hatching and rearing ponds, and other projects, and then proceed with the clearing of the site, and the commencement of a small biological building.

Under the enthusiastic and capable supervision of Mr. Taylor, the work has been vigorously urged forward, and Canada will soon possess one of the most admirable marine laboratories in the world, situated close to one of the most richly prolific fishery and marine areas known to zoologists.

The United States Government expeditions made some of the most amazing captures in the waters overlooked by the new British Columbia marine station. Herring, salmon, crab, oyster and other fisheries are carried on in these Nanaimo waters, and a new whaling station has been built on a lagoon a couple of miles distant.

Dredging, tow netting and other methods of collecting specimens were followed by Professor Ramsay Wright, Rev. George W. Taylor and Professor Prince last summer, and the reputation of the locality for a rich and varied fauna was fully sustained.

The British Columbia public have followed with keen interest the development of this important institution under the auspices of the Dominion Government.

GEORGIAN BAY BIOLOGICAL STATION.

During the past summer the study of fish-life and of aquatic biology in the waters adjacent to this station have been continued under the direction of E. M. Walker, Esq., B.A., Toronto University, whose enthusiasm and ability as a trained biologist resulted in great progress being made in spite of the enforced absence for a consider-

7-8 EDWARD VII., A. 1908

able time of Dr. B. Arthur Bensley, the head of the station. Dr. Bensley found himself able to carry on some work after the season's operations were advanced, and the staff of workers again included Mr. A. G. Huntsman and others from the University of Toronto.

Various problems which had been submitted to the staff by the Dominion Commissioner of Fisheries (Professor Prince) were studied and the reports, which are not yet completed, will be of scientific interest and of much practical value when published.

Tests with various meshes of nets to prove the relative effectiveness or the wastefulness of fishing nets will be again made next season in order that conclusive results may be reached.

SCOTCH HERRING CURING EXPERIMENT.

A comprehensive resumé of the operations carried on in this important innovation of the Canadian herring industry during the past three years will be found at page xvi. of the Thirty-ninth Annual Report of the Department of Marine and Fisheries,—Fisheries—for 1906.

During the present year the experiment was continued under the same management, that of Mr. John J. Cowie, of Lossiemouth, Scotland, a herring curer of long experience, and thoroughly versed in all branches of the industry. The staff again consisted of six girls and a cooper, who were brought out from Scotland, and on board the steam drifter *Thirty-three*, which was again used for supplying the herring to the staff, were eight drift-net fishermen, all of whom, with the exception of the captain, were Canadians.

It was intended this year to have commenced the operations at the Magdalen Islands, but owing to the unusually late spring the gulf was so full of ice when the drifter and staff reached Souris, P.E.I., that it was impossible to proceed to the Magdalen islands, and work was consequently begun at Souris, where operations were continued until the end of June.

The drifter first went to sea for herring on May 15, and from then to June 6, 340 barrels of fresh herring were landed. Of these, 203 barrels were cured, the bulk of which was sent to the New York market. Of those not cured, 57 barrels were sold to vessels at sea, as the drifter was unable to reach port on account of the ice, and the balance being too small for curing was placed in the local freezer to be used for bait.

From Souris the staff went to the Magdalen islands, where the first catch was landed on July 6, and from then until the 20th of that month the catch was more or less steady, ranging from 5 to 58 barrels per night, and totalling 264 barrels.

The fishing grounds resorted to were anywhere from eight to twenty miles off shore, and seemed to abound in herring.

In quality the herring were large and fat, and of the class known as 'Matjes.' Previous to the advent of these operations no herring had been landed at the Magdalen

SESSIONAL PAPER No. 22

islands in July, and the bringing in of so many large, fat herring at that time was a revelation to the local fishermen, and demonstrated beyond peradventure that herring of the first quality abound in the waters a considerable distance off shore, where they had not hitherto been sought, which might be readily taken by the use of drift-nets.

Only 27 barrels of the 264 landed here were unsuitable for curing, and the finished product, being all of the 'Matje' class were shipped to the following markets:—

		Brls.	Half brls.
H. Berneaud, Stettin, Germany. . . . .	..	79	Large Matjes.
H. J. Pallisen, St. Petersburg, Russia. . .	10	20	" "
H. J. Pallisen, St. Petersburg, Russia. . .	..	20	Selected "
Woodward & Son, New York. . . . .	..	50	Large "
Woodward & Son, New York. . . . .	..	15	Selected "
Woodward & Son, New York. . . . .	..	22	Medium "

Grand River, Gaspé county, was the next base of operations, and the first catch landed by the drifter there was on August 16, and from that date on to September 12 catches varying from two to forty barrels of herring was landed, making a total of 231 barrels.

The fishing ground mainly resorted to was out in the middle of Chaleur bay, between Grand River and Miscou island, and the quality of the herring was fairly good all through, fewer 'spent' fish being mixed therewith, than were found in the bay last year; but forty-four barrels out of the 231 caught were made up of such fish, which are useless for curing. The finished product was as follows:—

102 half-barrels 'large fulls.'
 61 half-barrels 'fulls.'
 42 half-barrels 'medium fulls.'

Some of these were shipped to the New York and Boston markets. A small lot also sent to Montreal, while the remainder is being held at Halifax until reports from the different shipments are received.

On completing operations at Grand River the drifter went to Halifax with the cured herring, and was there laid up for the winter, the crew being paid off. The services of three of the girls were also discontinued, and Mr. Cowie, with the remainder of the staff, proceeded to Grand Manan, New Brunswick, where they arrived on October 23, the object being to procure herring from the local fishermen at the different places, with which to demonstrate to them the Scottish methods of curing, and though Mr. Cowie found that herring are scarce around the island this fall, and that those being caught were 'spent' fish, he procured sufficient at three different places, viz.: North Head, Grand Harbour and Seal Cove, to enable him to instruct the fishermen in the process.

Mr. Berneaud, of Stettin, Germany, in reporting on the consignments sent to him, states that the barrels arrived none the worse for their long transport, 'and on being opened showed the contents to be carefully cured, well selected and nicely finished, in no respect second to anything we are receiving from Scotland,' and only drawback

7-8 EDWARD VII., A. 1908

being that they were larger than the trade there is accustomed to. Statements of sales have not yet been received; but the consignees quote thirty-five marks per barrel, which allowing for the German duty of three marks, would net back about \$7 per barrel.

The St. Petersburg consignee also refers to the large size of the fish, and though his statement of sales has not yet come to hand, he quotes twenty-five rubles or \$13 per barrel, which would net back \$6 per barrel, the duty on herring entering Russia being very heavy, viz., \$3.50 per barrel.

Information just received from the Boston shipment shows that the 'Large Fulls' sold at \$10 per barrel, the 'Fulls' at \$9 and the 'Medium Fulls' at \$8, and the Montreal consignment also sold at the rate of \$10 per barrel.

In view of the fact that the quotation contained in the New York *Fishing Gazette* of November 9, 1907, which quotation would apply to the time when the above sales were effected, the price for 'Extra Fancy Selected Large Fulls Shetland Fish is \$11 to \$11.50 per barrel,' the prices received for the Canadian product must be accepted as most gratifying, and offering the strongest inducements for the fishermen to adopt the improved methods of curing in order that they may avail themselves of such remunerative prices for their herring.

Up to the moment no returns of sales have been received from the New York consignments, and that market has so far proved disappointing; but the fact that the shipments to Russia and Germany where they would meet with the best products of the different portions of Europe, have not only been favourably reported upon; but so far as the German shipment is concerned, which is stated by Mr. Cowie to be of a better grade than that sent to St. Petersburg, it has been declared to be equal to the best received there, would seem to be sufficient to set at rest all doubts as to the adequacy of the Canadian fish, properly cured, to command the best markets.

Indications that the object of the department in conducting this experiment is being achieved, are not wanting. At different points fishermen and those interested in the industry are making preparations to so equip themselves as to be able to embark in the project, which can no longer be looked upon as a venture.

It has been demonstrated that by the use of drift-nets, herring of the best quality can be caught off shore at long distances when they are no longer available on the inshore, where alone previously they were caught, and it is anticipated that the time is not far distant when Canada will be doing a large and lucrative business in supplying to the markets of the world herring of a quality equal to the best.

THE SOURIS FISH-DRIER.

As explained in the Annual Report of the Department of Marine and Fisheries—Fisheries—for the year 1906, the object of establishing this institution was to bring prominently before the fishermen engaged in line fishing for cod, haddock, hake, &c., the expediency and practicability of adopting improved methods for the drying of their catches, in order to enable them to place on the markets of the world an article equal

SESSIONAL PAPER No. 22

to the best of its kind, and so avail themselves of the highest prices obtaining for such products.

The facilities, that such method of drying fish affords the fishermen, could not have been more clearly demonstrated or strongly impressed than during the past summer, owing to the most exceptional weather conditions that obtained on Prince Edward Island. Rainy and damp days followed each other in such close succession that it was not only next to impossible for the fishermen during much of the season, even if they so desired, to dry their fish on the flakes, but the manager of the drier was forced on occasions to put the fish through the plant without being at all exposed to the air on the flakes, rendering successful results much more difficult and expensive of attainment.

The output of the drier, however, continued to be quite satisfactory and has been very favourably received and reported upon from different markets of the world, and during the past season its operations were limited only by its capacity, as more fish were offering than could be handled.

The quantities of the different kinds of fish received at the drier up to the end of October were as follows:—

	Pounds.
Green codfish.	48,000
Kenched codfish.	274,000
Green hake.	229,000
Kenched hake.	224,000
Flaked hake.	3,400

As in the past the cured articles were shipped to Barbados, Jamaica, Liverpool and the more local markets.

GENERAL STATISTICS *RE* FISHERIES.

EXTENT OF CANADIAN COAST.

The fisheries of Canada are the most extensive of the world, extending over an immense sea-coast line besides our innumerable lakes and streams.

The eastern sea-coast of the maritime provinces from the Bay of Fundy to the Straits of Belle Isle covers a distance of 5,600 miles, which is more than double that of Great Britain and Ireland. While the salt water inshore area, not comprising minor indentations, covers more than fifteen hundred square miles, not including the numerous lakes in Manitoba and other western districts, all stocked with excellent species of food fish.

FISHERIES EXPENDITURE AND REVENUE.

The statement of the total expenditure for the different services connected with the fisheries of Canada during the last fiscal period ending March 31 last, forms Appendix 15 of this report, page 350.

7-8 EDWARD VII., A. 1908

The total fisheries expenditure amounts to \$693,685, subdivided as follows: Fisheries proper, \$95,930; fish-culture, \$118,681; fisheries protection service, \$204,837; miscellaneous expenditure, \$115,220, including also \$159,015 distributed as fishing bounties.

The total amount received as revenue from fishing licenses, fines, &c., during the same period in the different provinces of Canada, is given as \$59,544. This sum also includes \$4,134 received from the United States fishing fleet as *modus vivendi* fees.

See statement for whole year, p. 300.

A comparative statement of all expenditure and revenue for the last fifteen years concludes this appendix.

For fuller details of the different fishery expenditures, see Auditor General's Report, under their different headings.

BOUNTIES FOR FISHING.

The deep-sea fishermen of the maritime provinces received the sum of \$159,015 as bounties on their respective catches of fish for the season of 1906.

Of this amount, the owners of 957 fishing vessels and their crews received \$68,208. The balance, \$90,807, was distributed amongst 20,871 boat fishermen.

For the past season, the province of Nova Scotia received nearly double the amount of bounty paid to the other three provinces, viz.: \$99,518; Quebec, \$34,410; New Brunswick, \$16,247; and Prince Edward Island, \$8,839.

Since its inception (1882) the sum of \$3,949,701 has been distributed amongst the fishermen of the above named provinces to enable them to better develop their industry.

The regulations governing the payment of such fishing bounties, as well as all particulars respecting their distribution, form the first appendix of this report.

VALUE OF THE FISHERIES OF CANADA.

The whole catch of fish in our waters by Canadians, including fish products, seals, &c., during the season of 1906, is valued at over twenty-six million and a quarter dollars.

With the exception of last year when the phenomenal catch of salmon in British Columbia swelled the total value of fisheries beyond twenty-nine million dollars, this is the largest aggregate on record, exceeding the famous catch of 1901 by half a million dollars.

A glance at the following statements will easily show that this decrease is mostly attributed to the British Columbia salmon industry.

SESSIONAL PAPER No. 22

The following table shows the total value of the fisheries of each province in their respective order of rank, with the increase or decrease as compared with 1905:—

Provinces.	Value of Fish.	Increase.	Decrease.
	\$	\$	\$
Nova Scotia	7,799,160		459,925
British Columbia.....	7,003,347		2,846,869
New Brunswick.....	4,905,225	58,135	
Quebec.....	2,175,035	171,319	
Ontario.....	1,734,856	25,893	
Prince Edward Island.....	1,168,939	170,017	
Manitoba.....	1,492,923		318,647
Saskatchewan.....			
Alberta.....			
Totals	26,279,485	425,364	3,625,441
Net decrease.		3,200,077	

The most important fluctuation is the large decrease noticed last year in British Columbia, attributed chiefly to the shortage in the salmon industry of the west. It is true that the product of 1905 was the highest on record and it is not expected that such another production will be reached before the next fourth year.

The decline in the inland western districts may be safely ascribed to the limitation of seasonable fishing in those western waters which are as difficult of access as inconvenient to the shipment of the catch.

Three of the maritime provinces show signs of improvement over the previous production, especially in the Gulf of St. Lawrence.

The various features in the fisheries of each province are fully treated by the different fishery inspectors in their respective reports forming the appendices two to ten of this publication, as well as in their preliminary reports herewith.

7-8 EDWARD VII., A. 1908

The following statement shows the relative values of the principal kinds of the commercial fishes above \$100,000 for the year 1906, as compared with those of the previous year:—

Kinds of Fish.	Value.	Increase.	Decrease.
	\$	\$	\$
Salmon	5,856,760		3,133,182
Cod	3,471,186	49,786	
Lobsters	3,422,927		484,071
Herring	2,704,596	401,111	
Mackerel	1,369,728	411,505	
Whitefish	906,759		144,402
Trout	791,467	55,699	
Haddock	766,896		39,847
Pickarel	713,437		71,551
Halibut	683,840	67,105	
Sardines	514,916		363,456
Pollock	430,980	107,948	
Smelts	425,631		7,516
Clams, quahaugs, &c.	398,634	128,783	
Hake	384,491		63,174
Pike	204,616		22,448
Oysters	194,855	20,555	
Sturgeon	140,735		58,043
Alewives	139,689	18,049	
Eels	128,217		509

The quantity of fish used as bait in the season of 1906 is valued at \$544,453, and that of fish oil at \$253,520.

The fur seal skins secured by the British Columbia hunters during the same period realized \$316,224.

Out of the twenty different species of fish given above, the number of increases and decreases are about equal.

The most important fluctuation is noticed in the salmon industry, which notwithstanding a diminution of over three million dollars, still heads the list with a surplus of over two millions above any other species.

While the lobster industry is half a million less than last year, that of herring and mackerel each show an increase of over \$400,000.

The large falling off noticed in the sardine industry is ascribed to the reduction of fifty cents per barrel as received fresh from the weir fishermen.

It will be noticed how the clam industry, mostly quahaugs, is assuming large proportions, showing more than \$200,000 in excess of the oyster industry, which only holds its own by the rise of its value during recent seasons.

None of the other fluctuations are of much importance.

Of the principal fresh water species, whitefish has a considerable diminution, mostly felt in Manitoba and Saskatchewan, but trout shows a slight improvement over

SESSIONAL PAPER No. 22

last year. Pickerel and pike also both show less than in 1905 in the same western districts.

From the year 1869 to 1906 inclusive, the five principal commercial sea fishes have yielded the following values to the industry:—

Cod.	\$139,514,753
Salmon.	96,790,219
Lobsters	83,291,553
Herring	75,270,165
Mackerel.	47,416,972

EXPORT OF FISH.

During the last year ending June 30, the fish and fish products, including marine animals, exported from Canada to foreign countries, chiefly to the United States and Great Britain, amounted to \$12,585,808.

RECAPITULATION.

Of the Yield and Value of the Fisheries of the Dominion of Canada for the Year 1906.

Number.	Kinds of Fish.	Quantity.	Value.	Total.
			\$	\$
1	Cod, dried..... Cwt.	670,775	3,353,875	
2	" fresh or green..... Lb.	2,170,695	101,381	
3	" tongues and sounds..... Brls.	1,593	15,930	3,471,186
4	Haddock, dried..... Cwt.	82,745	288,289	
5	" fresh..... Lb.	10,540,160	316,205	
6	" smoked (finnan haddies).....	2,706,706	162,402	766,896
7	Hake, dried..... Cwt.	126,727	361,725	
8	" sounds..... Lb.	91,100	22,765	
9	Pollock..... Cwt.	143,662		384,490
10	Tom cod or frost fish..... Lb.	2,192,350		430,980
11	Halibut.....	15,665,410		65,770
12	Flounders.....	1,394,210		683,840
13	Salmon, preserved in cans.....	30,223,384	3,778,666	41,826
14	" fresh.....	9,116,560	1,229,162	
15	" smoked.....	459,270	49,259	
16	" pickled or dry salted.....	15,020,452	799,733	
17	Trout (all kinds).....	8,027,177		5,856,760
18	Ouananiche.....	9,450		791,467
19	Whitefish.....	12,293,710		945
20	Smelts.....	8,459,006		906,759
21	Onlachs.....	910,560		425,631
22	Herring, salted..... Brls.	331,996	1,534,336	45,878
23	" fresh..... Lb.	24,334,432	771,474	
24	" smoked.....	17,968,565	374,403	
25	" kippered.....	315,650	24,383	
26	Sardines, preserved in..... Cans.	3,270,000	163,500	2,704,596
27	" fresh or salted..... Brls.	230,901	351,416	
28	Shad.....			514,916
29	Alewives.....	31,558		59,021
30	Pike..... Lb.	5,625,500		139,689
31	Maskimongé.....	5,110		204,616
32	Eels, pickled..... Brls.	7,994	79,940	510
33	" fresh or smoked..... Lb.	804,610	48,277	
34	Perch.....	992,600		128,217
35	Pickrel.....	9,924,770		33,201
36	Bass (achigan).....	32,800		713,437
37	" sea or striped.....	184,725		3,280
38	Mackerel, salted..... Brls.	52,075	781,125	18,468
39	" fresh..... Lb.	4,905,025	588,603	
40	Sturgeon.....			1,369,728
41	" caviare or bladders.....	995,915	87,471	
42	Lobsters, preserved in cans..... Lb.	10,104,764	2,522,179	140,735
43	" fresh or alive..... Cwt.	101,370	900,748	
44	Oysters..... Brls.	32,355		3,422,927
45	Clams, quahaugs, scallops.....			194,855
46	Squid.....	18,460		398,634
47	Coarse and mixed fish.....		454,484	73,840
48	" "..... Lb.	14,451,780	424,621	
				879,105

SESSIONAL PAPER No. 22

RECAPITULATION.

Of the Yield and Value of the Fisheries of the Dominion, &c.—*Concluded.*

Number.	Kinds of Fish.	Quantity.	Value.	Total.
			\$	\$
49	Fur seal skins in B.C. No.	10,368		316,224
50	Hair seals skins "	39,262		45,228
51	Beluga skins "	193		772
52	Fish used as bait Brls.	362,969		544,453
53	" " fertilizer "	474,179		240,265
54	Fish oil Galls.	824,191		253,520
55	Dulse			6,720
	Total			26,279,485

7-8 EDWARD VII., A. 1908

RECAPITU

SHOWING the whole production of the Fisheries in the

Number.	Kinds of Fish.	NOVA SCOTIA.		BRITISH COLUMBIA.		New
		Quantity.	Value.	Quantity	Value.	
			\$		\$	
1	Cod, dried	Cwt.	386,840	1,934,200		84,458
2	" fresh or green	Lb.	266,400	7,992	711,000	39,260
3	" tongues and sounds	Brls.	930	9,300		350
4	Haddock, dried	Cwt.	64,691	226,418		14,818
5	" fresh	Lb.	10,274,125	308,224		199,925
6	" smoked (finnan haddies).	"	2,570,550	154,233		136,156
7	Hake, dried	Cwt.	91,938	269,731		23,940
8	" sounds	Lb.	45,995	11,499		26,450
9	Pollock	Cwt.	114,520	343,559		29,132
10	Tom cod or frost fish	Lb.	157,950	4,738		1,933,400
11	Halibut	"	924,848	92,485	14,416,700	570,835
12	Flounders	"	694,210	20,826		685,000
13	Salmon, preserved in cans	"	6,804	1,021	30,214,080	3,776,760
14	" fresh	"	714,210	134,381	5,156,480	483,934
15	" smoked	"	24,970	4,994	425,900	42,590
16	" pickled and dry salted	"			14,939,252	793,643
17	Trout (all kinds)	"	167,675	16,767	484,900	48,490
18	Ouananiche	"				
19	Whitefish	"				6,450
20	Smelts	"	415,510	20,776	412,500	20,625
21	Oulachons	"			910,560	45,878
22	Herring, salted	Brls.	114,417	540,850		183,084
23	" fresh	Lb.	5,437,232	54,372	8,934,000	446,250
24	" smoked	"	779,930	15,599	187,900	18,790
25	" kippered	"				315,650
26	Sardines, preserved in cans	Cans				3,270,000
27	" fresh or salted	Brls.				227,525
28	Shad	"	710	7,100		500
29	Alewives	"	8,124	32,496		
30	Pike	Lb.				22,844
31	Maskinonge	"				
32	Eels, salted	Brls.	3,320	33,200		3,565
33	" fresh	Lb.				
34	Perch	"				
35	Pickarel	"				106,500
36	Bass (achigan)	"				
37	" sea or stiped	"	12,650	1,265		165,400
38	Mackerel, salted	Brls.	40,829	612,435		215
39	" fresh	Lb.	4,468,525	536,223		360,500
40	Sturgeon	"			25,000	2,500
41	" caviare and bladders	"				1,000
42	Lobsters, preserved in cans	"	4,595,816	1,148,954		2,420,860
43	" fresh or alive	Cwt.	87,956	784,853		12,889
44	Oysters	Brls.	1,722	10,332	725	5,075
45	Clams, quahaugs, scallops	"		41,988		9,820
46	Squid	"	17,218	68,872		1,094
47	Coarse and mixed fish	"	61,329	122,658		4304,736
48	"	Lb.		580	466,400	26,875
49	Fur seal skins in B.C.	No.			10,368	316,224
50	Hair seal skins	"	156	195	5,600	3,150
51	Fish used as bait	Brls.	73,132	109,698		126,841
52	" used as fertilizer	"	106,739	53,370		3,570
53	Fish oil	Galls.	209,921	62,976	125,265	43,842
	Totals			7,799,160		7,003,347

SESSIONAL PAPER No. 22

LATION.

different Provinces of Canada for the year 1906.

BRUNSWICK.	QUEBEC.		ONTARIO.		P. E. ISLAND.		MANITOBA, SASKATCHEWAN, ALBERTA, ETC.		Number.
Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
\$		\$		\$		\$		\$	
422,290	178,485	892,425			20,992	104,960			1
22,144	639,700	31,985							2
3,500	195	1,950			118	1,180			3
51,863	2,635	7,905			601	2,103			4
5,998	39,610	1,188			26,500	795			5
8,169									6
59,850	537	1,208			10,312	30,936			7
6,612					18,655	4,664			8
87,396					10	25			9
58,002	101,000	3,030							10
14,620	176,862	5,820			800	80			11
20,550					15,000	450			12
825									13
402,788	1,051,430	205,639			12,100	2,420			14
1,660					100	15			15
	81,200	6,090							16
20,140	219,592	21,959	6,951,260	669,376	22,156	2,215	201,000	12,520	17
	9,450	945							18
968	59,510	5,951	2,927,650	290,155			9,300,100	609,635	19
338,530	210,696	10,535			703,310	35,165			20
									21
816,851	20,108	98,120	1,316	13,160	13,071	65,355			22
32,690	2,138,100	21,381	4,280,500	214,025	275,600	2,756			23
335,313	235,070	4,701							24
24,383									25
163,500									26
341,288	3,376	10,128							27
49,477		1,944							28
104,833					590	2,360			29
	111,200	5,560	1,950,200	78,008			3,564,100	121,048	30
	5,100	510							31
35,650	232	2,320			877	8,770			32
	784,510	47,071	20,100	1,206					33
	148,900	7,445	754,700	22,642			85,000	3,115	34
7,455	112,970	11,297	2,956,200	295,620			6,749,100	399,065	35
	32,800	3,280							36
16,536	6,675	667							37
3,225	7,178	107,670			3,853	57,795			38
43,260	12,000	1,440			64,000	7,680			39
864	133,115	7,987	329,000	26,320			498,000	49,800	40
900			22,020	15,464			37,000	37,000	41
601,203	798,800	199,700			2,289,288	572,322			42
112,390	85	425			440	3,080			43
89,520					14,988	89,928			44
248,252		320				98,254			45
4,376					148	592			46
25,980					435	1,110			47
	1,304,230	27,586	2,707,000	108,890			9,971,250	260,690	48
									49
90	133,434	41,793							50
190,261	117,869	176,804			45,127	67,690			51
107,245	147,210	73,605			2,475	2,475			52
17,059	419,598	125,879			12,545	3,764			53
4,995,225		2,175,035		1,734,856		1,168,939		1,492,923	

* Add \$6,720 value of Dulse in Charlotte Co., N.B.

† Add 193 Beluya skins, \$772.

‡ Including home consumption.

RECAPITULATION showing the Total Value of the Fisheries in the respective Provinces of Canada, from 1870 to 1906 inclusive, as compiled from the Annual Reports of the Department of Fisheries.

Year.	Nova Scotia.	New Brunswick.	Prince Edward Island.	Quebec.	Ontario.	British Columbia.	Manitoba and Northwest Territories.	Total for Canada.
	£	¢	¢	¢	¢	¢	¢	¢
1870.	4,019,425	1,131,433	No data.	1,161,551	294,982	No data.	No data.	6,577,391
1871.	5,101,630	1,185,033	"	1,093,612	193,524	"	"	7,573,199
1872.	6,016,835	1,905,459	"	1,320,189	297,633	"	"	9,570,116
1873.	6,577,085	2,285,662	297,595	1,391,564	293,091	"	"	10,754,997
1874.	6,652,392	2,685,794	288,863	1,608,660	446,267	"	"	11,681,886
1875.	5,373,851	2,427,654	298,927	1,596,759	433,194	"	"	10,330,385
1876.	6,029,050	2,953,389	494,967	2,097,668	437,229	"	"	11,117,000
1877.	5,527,858	2,133,237	763,036	2,560,147	438,223	104,697	"	12,005,934
1878.	6,131,600	2,305,790	840,344	2,664,655	348,122	583,433	"	13,215,678
1879.	5,752,937	2,554,722	1,402,301	2,820,395	367,133	631,766	"	13,529,254
1880.	6,291,061	2,744,447	1,675,089	2,631,556	444,491	713,335	"	14,499,979
1881.	6,214,782	2,930,304	1,955,290	2,751,362	599,903	1,454,321	"	15,817,162
1882.	7,131,418	3,192,339	1,855,687	1,976,516	825,457	1,842,675	"	16,934,092
1883.	7,089,374	3,185,674	1,272,468	2,138,997	1,027,033	1,644,646	"	16,958,192
1884.	8,763,779	3,730,454	1,085,619	1,694,561	1,133,724	1,358,267	"	17,766,404
1885.	8,283,922	4,005,431	1,293,430	1,719,460	1,342,692	1,078,038	"	17,722,973
1886.	8,415,362	4,180,227	1,141,901	1,741,382	1,435,998	1,577,348	186,880	18,679,288
1887.	8,379,782	3,593,507	1,037,426	1,773,567	1,531,850	1,374,887	129,084	18,386,103
1888.	7,817,030	2,941,863	876,862	1,860,012	1,893,869	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	167,979	17,655,256
1890.	6,636,444	2,699,055	1,041,109	1,615,119	2,069,637	3,481,432	232,104	17,714,992
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	3,263,922	1,179,856	2,236,732	2,042,198	2,849,483	1,088,254	18,941,171
1893.	6,407,279	3,746,121	1,133,368	2,218,905	1,694,930	4,443,963	1,042,093	20,686,061
1894.	6,547,387	4,351,526	1,119,738	2,363,386	1,634,968	3,950,478	787,087	20,719,573
1895.	6,213,131	4,403,158	976,836	1,867,490	1,584,473	4,401,354	752,466	20,199,338
1896.	6,070,895	4,799,433	976,126	2,025,754	1,605,674	4,183,999	745,543	20,407,425
1897.	8,090,346	3,934,135	954,949	1,737,011	1,289,822	6,138,865	638,416	22,783,546
1898.	7,226,634	3,849,357	1,070,202	1,761,440	1,433,632	3,713,101	613,355	19,667,121
1899.	7,347,604	4,119,891	1,043,645	1,953,134	1,590,447	3,214,674	622,911	21,891,706
1900.	7,809,152	3,769,742	1,059,193	1,989,279	1,333,294	4,878,820	718,139	21,537,639
1901.	7,989,548	4,193,264	1,050,623	2,174,439	1,428,078	7,492,771	958,410	25,737,153
1902.	7,351,753	3,912,514	887,024	2,059,175	1,265,706	5,284,865	1,158,437	21,959,433
1903.	7,841,692	4,186,800	1,099,510	2,211,792	1,535,144	4,748,364	1,478,665	23,101,878
1904.	7,287,099	4,671,984	1,077,546	1,751,397	1,793,229	5,219,107	1,716,977	23,516,489
1905.	8,239,085	4,847,090	998,922	2,003,716	1,708,963	9,890,216	1,811,570	29,473,562
1906.	7,799,160	4,905,225	1,168,939	2,175,635	1,734,856	7,003,347	1,492,923	26,279,485
Total	254,943,748	123,329,425	35,452,644	72,571,739	43,079,978	105,452,386	16,894,759	651,724,709

SESSIONAL PAPER No. 22

CAPITAL INVESTED IN THE FISHING INDUSTRY OF CANADA; NUMBER OF MEN EMPLOYED,
FOR THE YEAR 1906.

During the fishing season of 1906 no less than 76,100 men were engaged in the Canadian fisheries, not including the thousands of persons employed in the lobster industry. These fishermen used nearly seven million fathoms of gill-nets and seines besides other fishing gear and fixtures representing an aggregate capital of \$14,555,565, being an excess of over one million and a half over the outlay of the previous season.

The lobster plant alone is valued at nearly one million and a half dollars, comprising all the equipment of the seven hundred canneries dispersed on the sea-coast of the maritime provinces as follows: Nova Scotia, 238; New Brunswick, 197; Prince Edward Island, 188, and Quebec, 78.

This industry placed on the market over ten million cans of this preserved crustacean, besides about an equal number of pounds disposed of alive or in a fresh state, mostly in American cities, both aggregating a value of \$3,422,900.

The other important branch of salmon preserving on the Pacific coast during the same period, consisting of seventy-seven canneries, valued with all their equipment at \$1,757,000, gave employment to 14,665 persons and placed on the market over thirty million pounds of canned salmon, besides over twenty million pounds disposed of fresh or salted. Thus the whole aggregated nearly fifty-one million pounds of this King fish, valued altogether at five million dollars.

Not including the sealing fleet (which is still valued at \$393,000 with its boats and other equipments) the remaining invested capital in canning and other fishery industries is given at \$2,205,000.

Only sixteen vessels of the sealing fleet were hunting seals during the 1906 season, securing 10,368 skins valued at \$316,224, an average of over \$30 per skin.

RECAPITULATION

Of the Value of Fishing Implements, Vessels, Boats, Nets, &c., including all capital invested in the fishing industry of Canada, for the year 1906.

PROVINCES.	FISHERMEN.		VESSELS.			BOATS.		NETS AND SHINES.		Value of traps and pound-nets, weirs, trawls, &c.	Value of lobster plant, &c.	Approximate value of freezers, fisheries and other fixtures.	Total Value.
	Vessels.	Boats.	Number.	Tonnage.	Value.	Number.	Value.	Fathoms.	Value.				
Nova Scotia.....	5,454	18,752	700	23,042	1,137,465	14,636	394,768	1,781,221	713,569	291,802	673,012	1,318,085	4,529,301
British Columbia.....	+ 341	14,665	+ 37	2,520	370,000	.....	5,800	879,510	554,674	446,225	.....	2,247,196	4,591,560
New Brunswick.....	1,461	13,016	108	2,808	620,750	5,242	346,915	872,050	436,334	339,483	362,050	574,761	2,171,083
Quebec.....	194	11,699	38	4,938	176,675	7,651	281,780	332,043	210,201	250,351	110,228	377,345	1,207,515
Ontario.....	671	2,414	+136	1,057	36,865	1,394	117,251	1,953,215	279,400	152,457	.....	86,602	942,910
Prince Edward Island.....	177	3,400	34	756	14,020	1,925	55,715	115,538	47,676	16,256	300,857	26,170	460,694
Manitoba.....	220	1,240	+34	2,350	166,500	683	25,020	798,257	169,060	4,560	.....	246,700	611,840
Saskatchewan.....	11	802	3	51	6,400	780	3,300	59,550	9,905	4,300	.....	1,110	31,015
Alberta.....	.....	1,658	.....	.....	.....	340	3,300	55,010	3,522	825	.....	.....	9,647
Totals.....	8,458	67,646	1,439	40,827	2,841,875	39,634	1,462,374	6,347,294	2,426,341	1,506,259	1,446,147	4,872,569	14,555,565
	.....	76,104	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

+ Sealing fleet; also dories \$23,500 and equipment, \$17,800. + Mostly tugs.

SESSIONAL PAPER No. 22

RECAPITULATION.

STATEMENT of the Lobster industry in Canada during the season of 1906.

Provinces.	Number of persons employed in Canneries.	PLANT.				CATCH.					
		Number of Canneries.	Value.	Number of Traps.	Value.	Total value of Plant.	Number of Cans.	Value.	Fresh or Alive.	Value.	Total value of whole catch.
Nova Scotia	3,658	238	226,820	600,125	446,192	673,012	4,595,816	1,148,954	87,956	784,853	1,933,807
New Brunswick	5,025	197	118,600	253,411	243,450	362,050	2,420,860	601,203	12,889	112,390	713,593
Prince Edward Island	2,211	188	96,650	312,945	204,207	300,857	2,289,288	572,322	440	3,080	575,402
Quebec.....	1,423	78	54,650	89,635	55,578	110,228	798,800	199,700	85	425	200,125
Totals.....	12,317	701	496,720	1,256,116	949,427	1,446,147	10,104,764	2,522,179	101,370	900,748	3,422,927

7-8 EDWARD VII., A. 1908

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 1880 to 1906.

Year.	VESSELS.			BOATS.		Value of Nets and Seines.	Value of other Fishing Material.	Total of Capital Invested.
	No.	Tonnage.	Value.	No.	Value.			
			\$		\$	\$	\$	\$
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	26,747	833,137	1,351,193	823,938	4,757,985
1883.	1,198	48,106	2,023,045	25,825	733,186	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.	1,133	44,605	1,890,411	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	33,247	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	1,591,085	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	8,681,537
1894.	1,178	41,768	2,409,029	34,102	1,009,189	1,921,352	4,099,546	9,439,116
1895.	1,121	37,829	2,318,290	34,268	1,014,057	1,713,190	4,208,311	9,253,848
1896.	1,217	42,447	2,041,130	35,398	1,110,920	2,146,934	4,527,267	9,826,251
1897.	1,184	40,679	1,701,239	37,693	1,128,682	1,955,304	4,585,569	9,370,794
1898.	1,154	38,011	1,707,180	38,675	1,136,943	2,075,928	4,940,046	9,860,097
1899.	1,178	38,508	1,716,973	38,538	1,195,856	2,162,876	5,074,135	10,149,840
1900.	1,212	41,307	1,940,329	38,930	1,248,171	2,405,860	5,395,765	10,990,125
1901.	1,231	40,358	2,417,680	38,186	1,212,297	2,312,187	5,549,136	11,491,300
1902.	1,296	49,888	2,620,661	41,667	1,199,598	2,103,621	5,382,079	11,305,959
1903.	1,343	42,712	2,755,150	40,913	1,338,003	2,305,444	5,842,857	12,241,454
1904.	1,316	43,025	2,592,527	41,438	1,376,165	2,189,666	6,198,584	12,356,942
1905.	1,384	41,640	2,813,834	41,463	1,373,337	2,310,508	6,383,218	12,880,897
1906.	1,439	40,827	2,841,875	39,634	1,462,374	2,426,341	7,824,975	14,555,565

SESSIONAL PAPER No. 22

COMPARATIVE TABLE showing the Number of Men employed in the Fishing Industry since 1895.

Year.	Number of Persons in Lobster Canneries.	Number of Men in Vessels.	Number of Men in Boats.	Total Number of Fishermen.	Total Number of Persons in Fishing Industry.
1895.....	13,030	9,804	61,530	71,334	84,364
1896.....	14,175	9,735	65,502	75,237	89,412
1897.....	15,165	8,879	70,080	78,959	94,124
1898.....	16,548	8,657	72,877	81,534	98,082
1899.....	18,708	8,970	70,893	79,893	98,601
1900.....	18,205	9,205	71,859	81,064	99,269
1901.....	15,315	9,148	69,142	78,290	93,605
1902.....	13,563	9,123	68,678	77,801	91,364
1903.....	14,018	9,304	69,830	79,134	93,152
1904.....	13,981	9,236	68,109	77,345	91,326
1905.....	14,037	9,366	73,505	82,871	96,908
1906.....	12,317	8,458	67,646	76,104	88,421

FISH-BREEDING.

The report on fish-breeding by Commissioner Prince for the year 1907 forms Appendix eleven of this publication. It embraces a general review of the operations carried on in the fall of last year and the spring of 1907, such as the capture of parent fish, collection of ova and the incubation and planting of the fry of the various species now propagated in the waters of the Dominion.

New hatcheries have been steadily added of recent years in the different provinces of Canada so that our establishments, including the breeding ponds, now aggregate thirty-four.

This spring over 800 million fry were distributed from these different establishments by their respective officers in a satisfactory manner without much loss or serious accidents. Over half of these fry were young lobsters, the balance consisting of white-fish, salmon, trout and pickerel.

Brief reports from the different officers connected with this important branch of the service will be found in the above mentioned appendix.

OYSTER CULTURE.

As an annex of the fish culture report will be found a full report of the season's work on the cultivation of oysters by the department's expert.

7-8 EDWARD VII., A. 1908

Mr. Kemp devoted most of his summer in examining and clearing oyster areas in the maritime provinces, mostly at Caraquet, Murray Harbour and Cape Breton.

BEHRING SEA QUESTION AND PELAGIC SEALING.

Since the publication of the last annual report, there have been no new developments in this question, and the industry has continued under the same conditions as previously.

During the present year fifteen vessels cleared from Victoria, British Columbia, to engage in this fishery, and made a total catch of 5,397 seals, 2,091 of which represent the coast catch, 448 the Asiatic catch, and 2,858 the Behring sea catch.

In addition to the Pacific fur-seal industry, a fishery of very considerable importance has been conducted for the last few years in the South Atlantic ocean, in the vicinity of the Falkland islands.

Eight Canadian vessels are now engaged in this fishery, their port of clearance being Halifax, Nova Scotia, but at this date, the department has not received the statistics of the catches made by them this year.

BAIT FREEZERS.

The Fisheries Report for 1900, p. ix., contains a full report upon the inauguration of this system of cold storage for bait.

The report of the officer in charge of the freezers in the maritime provinces for the current season (1907) forms Appendix No. 12 of this report.

Twelve new freezers have been completed during the last twelve months; seven in Nova Scotia; one in New Brunswick and four in Quebec; two of the latter are in the Magdalen islands.

Altogether there are now thirty seven bait-freezers in Nova Scotia; three in New Brunswick; five in Prince Edward Island, and fourteen in Quebec, all in the counties of Bonaventure and Gaspé.

The prejudice held by fishermen generally against frozen bait seems to be gradually waning, and its adoption by nearly every one in need of bait will soon become an accomplished fact in every fishing centre.

FISHERIES PROTECTION SERVICE.

Since the change of the date of the fiscal year and early preparation of the annual report for parliament, it now becomes impossible to prepare and publish a report of this service for the current season. The report of this service forming Appendix No. 12 of this publication is for the season of 1906.

The same cruisers, with mostly the same commanding officers as the year before, again patrolled our Atlantic coast, the *Kestrel* and *Falcon* in the Pacific waters, and the *Vigilant* in Lake Erie.

SESSIONAL PAPER No. 22

A glance at the long list of foreign fishing vessels calling and using our ports (p. 302) will prove their importance to this foreign fleet. No less than two hundred and fifty-seven United States fishing vessels of an average tonnage of seventy-seven tons, and with about eighteen men each, called at sixteen of our principal ports twelve hundred and sixty times.

During the current season only one fishing schooner from United States was seized by Commander Knowlton for fishing within the three-mile limit. She was afterwards released on payment of fine.

OTTAWA FISHERIES MUSEUM.

Mr. A. Halket, the curator of the museum, submits a general summary of the collection of specimens with description of the vertebrate portion, especially the fishes.

This article forms appendix 14 of this report and will be a valuable addition to a first report published in 1905.

THE FISHERIES STAFF.

The outside staff of the Fisheries Branch of this department numbers nearly one thousand; twenty-four inspectors of fisheries and special officers; 112 overseers with magisterial powers *ex officio*, and 452 guardians temporarily employed to assist in the protection of fish.

The officers in charge of our thirty-four fish-culture establishments, with their permanent assistants, aggregate over 80 employees, not including many others required during the busy season. The officers and crews of our protection fleet of cruisers aggregate 270 men. There are also about 45 persons employed as reporters for the Intelligence Bureau during the fishing season who are not otherwise connected with government work.

A complete list of these different fishery officers will form appendix No. 16 of this report.

FISHING SEASON OF 1907.

PRELIMINARY REPORTS OF THE DIFFERENT INSPECTORS OF FISHERIES.

GENERAL REMARKS.

As the fishery statistics published every year are a few months old, it has been customary to request all our inspectors to briefly summarize the prospects of the current season's fishing operations. Now that the preparation of our annual report is somewhat advanced for the early sessions of parliament, these preliminary reports are prepared earlier, even when some fishing is still carried on, and cannot be considered as complete as formerly. However, a glance at these advanced reports will give a fair idea of coming fishery results.

The complaint of late spring and stormy weather seems almost general on the Atlantic coast, hence fishery operations were either delayed or interfered with by storms, &c. This will no doubt cause a shortage in the fishery production, notwithstanding that fish, though late in coming, seemed as abundant as ever.

In the Bay of Fundy the yield will be even above the average, with perhaps the exception of herring to be smoked.

Dogfish were much less in evidence than in previous seasons, and from appearance, these pests are seeking other grounds.

In British Columbia, the great salmon packing industry will not even come up to the decreased supply of 1906. Other branches of the piscine industry as halibut and herring will prove quite remunerative.

The whaling industry also gave very satisfactory results.

The western inland provinces also report a backward spring and poor fishing. Hence no improvement is expected from those quarters.

NOVA SCOTIA.

Inspector A. C. Bertram, of North Sydney, C B., reports that a feature of the fishing in the Cape Breton Island district for 1907 has been the unfavourable weather for the operation of this industry. Not for twenty-eight years has there been such unfavourable weather conditions. First, by having gulf and Arctic ice kept on the coast by adverse winds and tides until the end of May, and since by heavy winds. Had it not been for unfavourable weather conditions the season would have been good. Fish of all kinds were abundant, and on sections of the coast (particularly on the western

SESSIONAL PAPER No. 22

coast), where ice did not interfere, the lobster pack exceeded that of the previous year by at least forty per cent. The supply of lobsters everywhere in the Cape Breton district was as plentiful as in any previous year for the past twelve.

In other leading branches of the fishery there was no scarcity of fish and bait, in particular the supply of spring herring and squid was good. Thus, were it not for weather and ice conditions, the season would have been a good one. Cod and haddock were particularly plentiful. The June mackerel catch was good. The midsummer fat herring fishery was better than in previous years. This fact is accounted for by the absence of dogfish on the coast in July and August. Later, however, these fish appeared, but not in such great numbers as in previous years.

The commercial demand for fish was good and the prices in advance of previous years. Had it been an average season as far as climate conditions are concerned, the season of 1907 would have been exceptionally profitable for those engaged in the industry.

Inspector R. Hockin, of Pictou, N.S. reports that the results of the fishing operations in district No. 2 for the season of 1907 is expected to be an average one.

The salmon fishery last year yielded more satisfactory returns than for many years, and for the present season it is expected to be fully up to last year.

There may be a slight decrease in the cod, haddock, pollock and hake fisheries, but it will be a small percentage.

The herring fishery will yield about the same, but mackerel will show a decrease of about 20 per cent.

The lobster canning is about the same as last year.

The excellent shad fishery of former years appears to be going steadily, and unless something can be done to save it, it will be gone in a few years.

Inspector A. C. Robertson, of Barrington Passage, N.S., reports as follows:—The lobster fishery, which is the most extensively prosecuted branch in my inspectorate was fully up to the average when weather conditions would allow fishermen to operate. A succession of storms during the winter and early spring caused much damage to traps, and in exposed positions the loss of boats.

Numerous applications were made to your department for an extension of the open season, which the department declined to grant, and I think that the general consensus of opinion among both fishermen and packers to-day is that the decision was a wise one.

Line Fishing.—Line fishing for cod, pollock, haddock and hake when bait was available is well up to an average catch.

Mackerel, which was at one time one of the most important fisheries in my district, more especially in the counties of Shelburne and Yarmouth, and which had become almost depleted, shows a marked increase.

7-8 EDWARD VII., A. 1908

Herring fishery, which at some seasons is excessively large, was not up to the average.

Shad fishing is prosecuted chiefly in the counties of Annapolis and Kings, and the overseers report a better condition for the past year.

Salmon and alewives.—The salmon fishery shows a marked increase. The alewife fishery is not up to the average. The catch of trout, which was formerly exported to the United States, shows a marked increase since the exportation was prohibited by your department.

Clams.—This fishery, which is prosecuted chiefly in the counties of Annapolis and Digby, was fairly remunerative. The close season which the department adopted is a wise enactment, and will have the effect of preserving a fishery which otherwise would have been depleted.

The efforts of your department in the way of improved methods for curing fish have not received the consideration from the fishermen that they deserve.

The dogfish reduction works in course of construction at Cape Sable island will prove a great boon to the fishermen, not only from the standpoint of revenue, but will be an aid to diminish what has been a pest, more especially to the successful prosecution of the herring fishery with gill-nets.

NEW BRUNSWICK.

Inspector J. F. Calder, of Campobello, N.B., reports as follows:—With a few exceptions, this has been a banner year for the fishing industry. A very late spring seriously retarded the operations of the lobster fishermen, but I am of the opinion that the total catch will equal that of 1906. The only branch of our principal fisheries that has not attained success, is the smoked herring business, principally at Grand Manan, but of late good catches are being made, and I am hopeful that they may get a good run during November.

Sardines.—The total catch of these will be greatly in excess of that of last year. Fair prices have prevailed and on the whole, it has been a very satisfactory year for the industry, as the sardine herring have been caught in paying quantities in all parts of the county of Charlotte.

Cod.—A large increase in the catch for this season as compared with that of the previous year.

Pollock.—The hand-line fishermen have done better than last year, but the weirs at Campobello took very few, and as a whole there will very little difference in the catch of 1907 and the catch of 1906. Prices have been exceptionally high.

Hake and haddock.—The season of 1907 will long be remembered as the most profitable one this fishery has ever experienced. I am of the opinion that the increase will be fully 300 per cent. Prices have been very high, and hake sounds sold for 50 cents per pound, the highest price for twenty years.

SESSIONAL PAPER No. 22

Herring.—As already pointed out, the run of herring suitable for smoking purposes has, so far, been very poor, but there are prospects of a fair catch this fall, provided the weather does not get too severe. The catch of large herring on the Ripplings was also very light. They acted very peculiarly; they would 'school' in abundance for a day or two and then probably not again for a week.

Dogfish.—The fishermen have had very little trouble from this pest this year.

Salmon.—The extremely bad weather during the spring and early summer made it impossible for the drift-net fishermen to carry on their work successfully. Sometimes they would not get out for three or four days at a time, yet I think the catch will equal that of 1906. High prices were paid and those engaged in this fishery had a profitable year.

Alewives.—Small catch, due to bad weather; high prices.

Remarks.—At the present, I do not feel in a position to make an estimate of the total value of the different fisheries of this district, but I am sure that making due allowance for the present shortage in the output of 'smoked herring' at Grand Manan, it will equal 1906, and if the fall fishing at Grand Manan comes up to expectations, it will greatly exceed it.

*Inspector R. A. Chapman, of Moncton, N.B., reports as follows:—*Shad.—About the usual quantity have been caught, with prices enormously high.

Salmon.—Scarcely as many have been taken as last year, owing to rough weather, but the streams are swarming with them this fall.

Herring.—Spring herring were if possible more than usually plentiful everywhere on our coasts, the fall run on the Caraquet banks was good, but they were not so plentiful on the Miscou banks.

Cod.—The catch of codfish was a fair one, with unusually high prices, but owing to wet weather the fishermen had much trouble in drying their fish.

Smelts.—This fishing was better in the aggregate last winter than the year before, and prices higher than ever.

Mackerel.—The catch was above the average of late years.

Quahaugs.—Owing to close season not so many were raked as previous year.

Oysters.—It is too early to say much about oysters, as the season now only opens October 1.

Lobsters.—A larger pack was made in every subdistrict than for many years, in all 10,560 cases more were labelled than in 1906, and nearly 17,000 more than in 1904; prices higher than ever before; it is reported that they are now selling wholesale at seventeen dollars per case; the increased pack of this year over last in value will amount to nearly \$150,000.

7-8 EDWARD VII., A. 1908

Taking into account the high prices obtained for all kinds of fish, it has been a profitable year notwithstanding the unusually rough season, which I believe was the worst in this respect that we have had for a great many years.

Inspector H. E. Harrison, of Fredericton, N.B., says that the inland fisheries of New Brunswick (district No. 3), are somewhat disappointing.

The quantity of salmon taken in the St. John river and tributaries this season, I believe, is considerably less than in 1906. However, I am firmly of the opinion that the reason is not because of fewer fish in these waters, but on the contrary, I have good reason to believe salmon are increasing.

The principal reason, I feel, is the high and very rough condition of the water. I have just been told by a salmon fisherman that it was the best season's fishing he ever had; this, however, has not been the general verdict, as high water has interfered with the setting of many nets to advantage. Also, I believe more vigilance has been displayed in protection, consequently less illegal fishing.

The fly surface fishing also has been very disappointing.

Shad fishing was not as satisfactory as regards quantity taken as formerly. It is believed in my district, at least, that shad have a difficulty in getting round the array of long nets at the mouth of the St. John river. The price of this fish, in the fresh state, has about doubled in three years.

The quantity of alewives taken in my district is also decreasing each succeeding year. Fishermen think that they are either going in some other direction or being over fished.

Trout fishing is reported from fair to extra good.

To my surprise, the catch of sturgeon this season is reported much less than in 1906. I cannot give any plausible reason for this, as this fishery, while it has been slow, nevertheless has shown considerable improvement in late years, and I hoped would eventually recover to its proportion of some twenty years ago. The season's yield will likely be under the average.

PRINCE EDWARD ISLAND.

Inspector J. A. Matheson, Charlottetown, P.E.I., reports as follows:—

Canned Lobster.—This industry shows an increase over the season of 1906 of ten thousand five hundred and sixty-one cases of forty-eight pounds.

The catch of cod and hake is about twenty per cent more this season in Queens and Kings counties; in Prince county is about the same as last year.

A small increase in catch of mackerel in Queens county; in Prince county about the same as last year. Up to the present time there is a decrease in Kings county of about five hundred barrels.

SESSIONAL PAPER No. 22

Salted Herring and Herring for Bait.—There is an increase of about twenty per cent in Kings county; in Queens county about the same as last year; in Prince county up to the present time is short of last year about twelve hundred barrels.

The quantity of quahaugs fished this year is about the same as that taken last year.

The season for oysters opened later this year than last (1906), but from the quantity fished up to this time, it is estimated that not more than half the quantity will be fished this year.

QUEBEC.

Commander Wakeham, officer in charge of the Gulf of St. Lawrence Division, province of Quebec, reports that the season of 1907 has been an altogether abnormal one. Following a very severe winter, the spring was late, and owing to the continuance of northeast winds, the ice, which was unusually heavy, was held in the southern portion of the gulf until after the middle of May. The C.G.S. *Princess*, which wintered in Pictou, N.S., could only get out of that harbour on May 21, and then had to work her way through some fifty miles of ice to open water. The rivers were late in opening up; in some of them, on the north coast, the ice only ran out at the end of May. After such a severe winter and late spring, every one looked forward to a warm summer, but the reverse was the case, as we had practically no summer. Hopeful and sanguine people then counted on a fine open fall, but here again we are disappointed, as at the present writing, October 21, grain which should have been harvested a month ago is being cut green. We have already had snow, 12 degrees of frost, and cold, boisterous weather, so much so, that there has been practically no fall fishery.

In the face of such conditions, it is not surprising that all branches of the fishery should show a falling off.

Spring herring were late in coming into the gulf, and owing to the ice conditions very few vessels visited the Magdalen islands for the first baiting. Herring were, however, constant through the season, especially along the shores of Bonaventure and Gaspé, so that those who have been complaining that the practice of taking herring and herring spawn, for manure, had diminished the herring supply, must find some other cause for the occasional scarcity of herring, inshore, in summer.

Cod-fishing began about the usual season, and these fish were abundant on the south coast, bait being constant a good fishery was made. On the north coast the fishery was an average one, from Pointe des Monts to Mingan; from Mingan to St. Augustin, on the Labrador, the summer fishery was a failure, owing to the absence of the capelin; from St. Augustin to Blancs Sablons, and on out through the Strait of Belle Isle the fishery was most abundant, as the capelin struck this part of the Labrador in enormous quantities, especially from the 15th to the end of July. Cod were everywhere plentiful in the fall, but owing to the constant rough weather, the fall catch has not amounted to anything worth while. Owing to the wet sunless season, it was difficult to cure fish, and the proportion of bad fish which has been made is great. There has

7-8 EDWARD VII., A. 1908

been an unusual demand for fish, outside traders have visited the coast in large numbers and are buying fish without cull. This has been going on for some time, and is having a very bad effect on the fishermen, as it makes them careless as to how they cure the fish.

The salmon net fishery has been a poor one, the salmon were late in striking the coast, and in many places, exposed to easterly winds, it was impossible to keep the nets out. The early sport fishing was poor as the fish had not run in, while the rivers were abnormally high, owing to the almost daily rains; towards the close of the season, when the rivers fell, those who were fortunate enough to have held on, had splendid fishing. It has been remarked all over the gulf that the salmon were not as fat as usual, they were also light in colour and lacking in flavour.

The season was not a favourable one for lobster fishing, and there was considerable loss of gear on all grounds exposed to easterly winds, yet in the face of the conditions the pack must be considered a fair one.

Mackerel were late in coming into the gulf, but the early fishery was a good one—the late fishery, for fat mackerel, was poor, and as one might have expected, viewing the rough cold weather which prevailed, the fish left the gulf fully two weeks earlier than usual.

In spite of all these unfavourable circumstances, those who stuck to the fishing have done well; prices have been so high. Lobsters sold at from \$14 to \$15 per case. Mackerel are bringing on the coast \$16 per barrel, while cod have brought \$5.50 per cwt., as I have before said, practically without cull.

The people are generally well provided for the winter; there is an unlimited demand for labour, in fact enough men cannot be found to do the work offering, while wages are more than double what they used to be a few years ago. I only know of a few families unsupplied for the winter, these same families are, however, always in need, and fortunately their neighbours are amply able to keep them going till the traders come round again in the spring.

Inspector J. Riendeau, of Montreal, states that in his division there is no visible progress to be ascertained as to the yield of the fish, yet he hopes for a future increase in the counties of Champlain, St. Maurice and Nicolet, the fishermen of these places beginning to understand that it is more profitable to work at other things than at fishing only.

In the county of Yamaska, the game fish was not as abundant as last year. The same may be said for the counties of Maskinonge and Berthier on account of the excess of the hoop nets used in these waters. All around Lake St. Peter the aggregate of mixed soft fish has been fair, though the fish were very small; game fish being very scarce and hardly any sturgeons reported.

In L'Assomption and Terrebonne counties an increase is ascertained, especially the trout attributed to the prohibition in the transportation of said fish to the United States.

SESSIONAL PAPER No. 22

In the counties of Vercheres, Chambly and Laprairie, the prospects are better, there being no netting now. In 'La Tortue river,' there were more black bass caught than for many years past.

Around Montreal, Lake St. Louis is getting fairly good, principally in Chateauguay river, the black bass was plentiful; over 15,000 were caught up to date, this may be explained by the absence of nets in the mouth of the river or around it.

In Lake St. Francis there is much improvement in the quantity and growth of fish and the prospects are better. Sporting men report that never was a greater quantity of bass taken in the rapids of the Cascade des Cedres and Coteau du Lac. In short, Lake St. Francis and its surroundings gave good results, excepting sturgeon, which is on the decrease.

In Lake of Two Mountains fish was very scarce, it is pretty much ruined both in game and soft fish altogether. It is to be hoped that with the new regulation it will soon improve.

After the new regulations come in operation, I hope to report good progress in all this district. I may add also that all around my division, I could not ascertain any progress about pickerel and maskinonge, owing to their being caught in an immature condition. If the local fish overseers should take more care and attend to their duties, the results would be much more satisfactory.

Inspector A. H. Belliveau, of Ottawa, expects another falling off in the inland waters of Quebec for the present season. Spring was very late, and the ice remained a long time on the lakes and streams. The better kinds of fish are becoming scarcer and making way to coarser grades which now predominate in these inland waters.

Exhaustive net fishing, especially with small meshed implements, has no doubt brought on this result.

The waters of Lake Two Mountains, which is an enlargement of the Ottawa river, a good spawning ground, have been protected from further abuses. Netting of any kind is now prohibited in that large expanse of water comprising River Jesus and des Prairies to the St. Lawrence.

The only part of my district which does not show serious decline is Missisquoi bay, where another fair capture of fish was effected last spring.

Bass angling was again reported quite good in that part of Richelieu river above Iberville. The same may be said of the great eel weirs of that locality, which again yielded remuneratively.

ONTARIO.

Inspector of Fisheries J. M. Hurley, of Bellerive, says that the spring fishing has been better than usual this year and rough fish of all kinds, especially pike, pickerel and bullheads, have been on the increase. Several fishermen have taken as high as two thousand pounds in one week.

7-8 EDWARD VII., A. 1908

Sporting fish have also been more plentiful and the bass fishing in the Bay of Quinte and inland lakes has been better than it has been for many years previously. It has been reported to me that several lakes that have been stocked from the Quinte Bass Pond are this year giving good results. The operations at these ponds during the present year have resulted in the distribution of a splendid lot of young bass which had attained the length of four inches at the age of four months.

Whitefish made their appearance this year two weeks earlier than usual and are now coming into the bay in large numbers.

The provincial government had a patrol boat, on the Bay of Quinte and the Lake Ontario waters, in the vicinity of Prince Edward county, during the summer close season, which filled a long felt want. The fishermen now understand the regulations better than ever before and are determined that the same shall be observed by all.

Inspector O. B. Sheppard, of Toronto, says, from all the information at my disposal I should judge the commercial fishing in my district shows a gradual decrease year by year; this was particularly noticeable in the early part of the season, but returns were somewhat better during the later part. The rod and line fishing was very good in some waters, while in others it showed a marked falling off; this was particularly noticeable in the waters of Georgian bay, while on many of the inland lakes it showed an improvement over last year. Many fishways have been constructed on dams across important streams during the season, which I think will have good results. The law has been fairly enforced, but there are still too many licenses being issued and unless some drastic action is taken in this respect very soon it will be too late to save our fisheries from certain ruin.

The carp in both international and inland waters are still increasing and doing incalculable damage to the game fisheries, as well as destroying the wild rice.

Inspector of Fisheries A. G. Duncan, of Sault Ste. Marie, reports as follows:— Although all the returns for the season of 1907 have not been received, it is very probable that the aggregate yield will surpass last year's; the fishermen attribute the increased catch to the prevalence of high winds during the season which kept the fish moving.

Herring fishing is on the increase.

There has been less illegal fishing by American poachers than last year, a number of seizures of trap-nets were made which have already been reported to the department. The regulations have been well enforced by the overseers, and a large number of seizures of nets being illegally fished have been made.

No complaints have reached me of violations of the Sawdust Act in my district.

About the same number of fishermen were engaged in the industry this year as last.

There has been an increase in the number of rod and line fishermen owing to the excellence of the sport during the past season in my district.

SESSIONAL PAPER No. 22

Inspector W. S. Young, of Selkirk, Manitoba, reports as follows:—At the present time it is impossible to give an accurate account of the fisheries as to yield.

The whitefish fisheries will show a large falling off in the catch compared with the previous year, 1906. During the summer season, I expect a decrease of from twenty-five to forty per cent. This is accounted for by the lateness of season in opening up, there were no whitefish landed here in Selkirk this year until about the first day of July, in previous years we usually had the first consignment in by the first week in June. This practically cut off a month of the fore part of the season, and then after the season did open up, the weather conditions were very disastrous for a successful season's operations.

Pickarel, sturgeon, pike, catfish, goldeyes and sturgeon caviare, will show a yield equal to that of the summer season of 1906, in fact in some varieties I look for an increase.

If the coming winter season upholds its past records there will be no decrease in the yield of these valuable fishes except whitefish.

SASKATCHEWAN.

Inspector E. W. Miller, of Qu'Appelle, Sask., reports as follows:—An exceedingly late spring was followed by a cool backward summer, and in the southern portion of the province there was a considerable diminution in the amount of fishing carried on. Spring spawning fish in many of the lakes had only well begun spawning when this season opened. The sturgeon fishery for the export market was actively carried on in the Cumberland waters in July and August with satisfactory results. For the first time, the whitefish fishery was prosecuted in the summer season at Moose Lake, where a very heavy catch was made. For the winter season now opening preparations on an increased scale are being made at Jackfish, Turtle and Cold lakes in the Battleford district, and also for the trout lakes in the Prince Albert district; the output for the export market from these waters will probably be larger than in any previous year. Applications for licenses in the smaller lakes, fished for local consumption only, show a large increase, and the catch is likely to be larger than heretofore. All waters are in good shape.

ALBERTA.

Inspector Harrison S. Young, of Edmonton, Alta., reports as follows:—The creeks and rivers of the district have been high all summer. Fish were unusually late in spawning this spring, and had a good run in the creeks when they did start. Whitefish are reported plentiful in all lakes. Summer fishing has been carried on to a greater extent than usual in Pigeon lake and White Whale lake, and Lake St. Anne. The local market here and in towns along the Calgary and Edmonton railroad has been kept well supplied with fish. The cold summer weather rendered the transport of fish by wagon easier than usual, and fish were landed here in unusually good condition. A very thorough patrol of the district was made during the spring close season, and a good many trap-nets were destroyed and some bag-nets, but the owners as usual could not be found.

7-8 EDWARD VII., A. 1908

As soon as guardians were appointed in the southern part of the district they started in to patrol their districts, and I trust their work will be effectual in stopping some of the evils that have been the source of complaint.

I hope the sale of trout will be stopped. At present every butcher's shop in Edmonton is supplied with lots of fine mountain trout, and this has been the case all the past month. I doubt very much if these fish were ever caught with a hook, but am afraid a dynamite cartridge is responsible for their death.

If people in southern Alberta who have knowledge of the regulations being broken would promptly give notice to the fishery officers, and be willing to give evidence in case of a prosecution, it would greatly help the fishery officers in putting down illegal fishing. Distances are great and fishery officers are few. It would take a small army of guardians to effectually police the trout streams of the district, but if the settlers will back up the officers by lodging information with them, much good can be accomplished. A guardian is yet required for the district around Calgary.

As all the lakes in the district are in good condition, and fish reported as plentiful all over, I can but anticipate a successful fishing season during the winter of the current year.

BRITISH COLUMBIA.

*Inspector C. B. Sword, of New Westminster, B C., reports:—*The take of fish in district of British Columbia for the current year, except in the case of the sockeye salmon, can only at this date be conjectural.

The pack of sockeye salmon for the Fraser river, including about 2,800 cases put up in Victoria, only amounted to 59,510 cases against 204,489 cases in 1903. On Puget Sound the pack was 87,000 cases against 151,828 cases in 1903.

The small take of sockeye, much less than the canners had made preparation for, caused several to utilize the later runs and the pack both of humpbacks and cohoes will show a considerable increase. Some of these have already been marketed at paying prices. The run of spring salmon was exceptionally good. Most of these, however, are exported fresh in ice, and in a frozen condition.

The take of cohoes was also very fair, and while some were canned, a considerable quantity was put up in a frozen condition for export later. This is considered a 'humpback,' and not a 'dog-salmon' year on the Fraser, but while the run of the former was exceptionally large there was a fair take of the latter, the market for which outside of the Indian consumption is mainly in Japan, to which they are sent in a 'dry salted' condition.

The sturgeon take which has been very small for several years now, has shown a great improvement this year, and there will be no falling off in the returns from the halibut fishing.

These items practically cover the fishing for this district, which does not now extend into the gulf further than Howe sound.

Other varieties may be assumed to be likely to give normal returns.

SESSIONAL PAPER No. 22

Inspector E. G. Taylor, of Nanaimo, B.C., states that the fisheries carried on in his division have been fairly successful during the past year.

Many of the traps operating on the west coast of Vancouver island have made large catches of salmon, chiefly spring, cohoes and humpback. The run of humpbacks was phenomenal, and as it was a disappointing year for sockeye, a large number of the former were canned.

This has also been a banner year for spring salmon. The largest numbers were taken in the trap-nets on the west coast in the early part of the season. All the salmon taken in the trap-nets were fresh from the sea, and in condition and quality could not be surpassed. The canneries on the west coast of Vancouver island are not effected by the run of salmon to the Fraser river. The cannery at Clayoquot had a very successful sockeye season. The cannery in Victoria operated by the Capital City Canning and Packing Co., Ltd., put up the largest pack of salmon, being in the neighbourhood of 24,000 cases. The companies operating trap-nets on the west coast of Vancouver island were permitted to continue their fishing throughout the whole season, as past experience showed that practically no sockeye salmon were in these waters between August 25 and September 15, so that no harm could result to the sockeye fisheries of the Fraser. This season, from my own observation, and the information received from the fishery officers and fishermen, that no sockeye were taken in the traps at this time, while large numbers of cohoes and humpbacks were taken, and in prime condition, I would strongly recommend that the west coast be not included in the close season as passed by an order in council, August 22, 1904.

This has been a very successful year in the whaling industry. Two stations were in operation on the west coast of Vancouver island, at Sechart and Kyuquot. During the greater part of the summer the average daily catch was three whales at each of the stations. The station at Pages lagoon, near Nanaimo, is completed, and will be in operation during the winter months, the stations on the west coast closing down for the winter, owing to the stormy weather prevailing on the Pacific coast at this season of the year.

The herring industry has developed and is now one of the most important industries on the coast. The centre of this industry is at Nanaimo. At this point, the steamers engaged in the halibut fishing secure their bait. Between the years 1905 and 1906 about 25,000,000 lbs. of halibut were taken south of Cape Caution, by American vessels. This season very few halibut fishermen were seen off the west coast, and poaching has diminished to a great extent, this is owing to the vigilance of the cruiser *Kestrel*.

I have the honour to be, sir,

Your obedient servant,

F. GOURDEAU, Lt.-Col.,

Deputy Minister of Marine and Fisheries.

SPECIAL REPORTS

BY

PROFESSOR EDWARD E. PRINCE, F.R.S., CANADA,

*Dominion Commissioner of Fisheries, General Inspector of Fisheries, and Director of
the Biological Stations of Canada.*

I. THE LOCAL MOVEMENTS OF FISHES.

II. UNUTILIZED FISHERY PRODUCTS IN CANADA.

1907

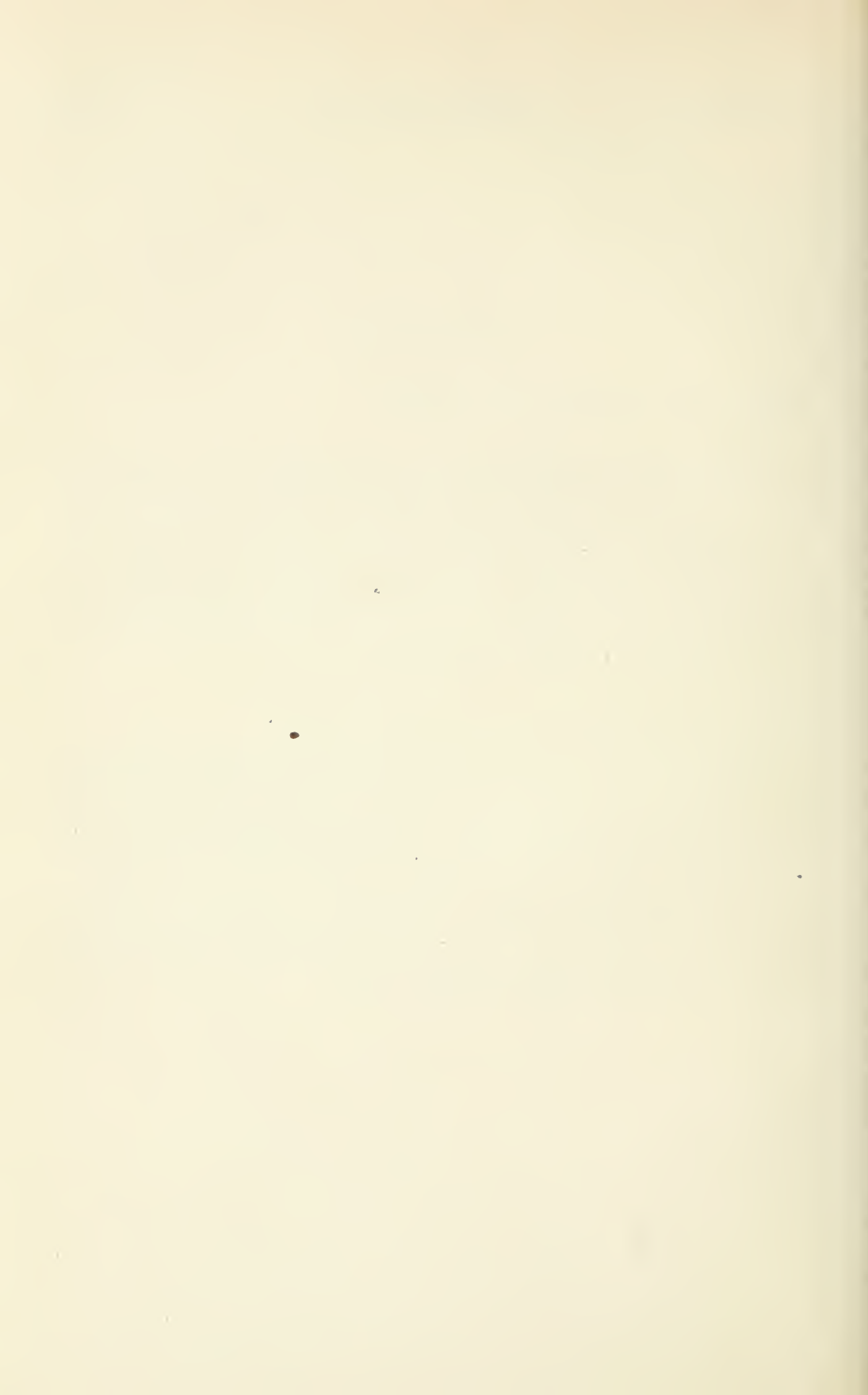
CONTENTS.

I.—THE LOCAL MOVEMENTS OF FISHES.

Alleged uncertainty of fishes' movements—Two supposed causes of migration—Fishes move with fixed regularity—Practical bearing of question—Fry migrations—Professor McIntosh's great discoveries—Persistent habits of young fish—Studies on flat fish (plaice)—Marking fish inconclusive—Local varieties imply limited migrations—Fishes are true to their routes—Migrations not always at spawning time—Utility theory inapplicable—Past subsidence of sea important—River basins once part of sea—Hardships of migrating salmon—Many salmon die—Land-locked varieties of sea-fish—Heredity is the cause—Some fishes non-migratory—Summary. pp. 1 to

II.—UNUTILIZED FISHERY PRODUCTS IN CANADA.

Introduction—How products are wasted—Reprehensible methods of utilization—Best products essential—Known neglected resources—Foreign fish products instructive—The carp—Improved methods of utilization urgent—cured *versus* fresh herring industry—Ontario cured herring impossible—Tunny industry possible—Skate, dogfish—shark's fins, &c.—Roe of fishes—Sea cucumber or Trepang—Abalon and other mollusks—New bait resources—Sea-weeds, &c., for chemicals, food, bedding, &c.—Corallines and sea-weeds for decoration—Eel skin industry—Fish and sea-weed glue, isinglass, &c.—Shell, button, and pearl industries—Prawns, shrimps and crayfish—Skins of fishes, whales, &c.—Ice industry suggested—Conclusion. pages



I

THE LOCAL MOVEMENTS OF FISHES.

By PROFESSOR EDWARD E. PRINCE, DOMINION COMMISSIONER OF FISHERIES, CHAIRMAN OF THE BRITISH COLUMBIA FISHERIES COMMISSION 1905-1907.

The belief long prevailed, and even now has wide currency, that fishes in the sea, or in lakes and rivers, are somewhat erratic and uncertain in their movements. It was admitted that the migrating schools of salmon showed regularity in the periods of their ascent of rivers, and had more or less fixed courses, while the vast armies of herring, off our British shores, were imagined to move from the Arctic ocean southwards with unerring certainty, skirting the Scottish and English coasts, to disappear in the depths of the sea.

ALLEGED UNCERTAIN MOVEMENTS OF FISH.

These two examples of regular and ordered migration were however held, by fishermen and authorities in general, only to emphasize the general feature of fortuity in the wanderings of the finny tribes, by their exceptional character.

To the scientific mind there appeared something incongruous in this alleged erratic and aimless migration. The order of nature is such that lives of all animated things, even man himself, are circumscribed by conditions and unalterable laws, and the migratory habits of fishes could hardly be an exception. The pursuit of fishing has always appeared one of the most uncertain possible, and this uncertainty in the capture of fish seemed to support the theory that no regular laws, or well-ordered conditions, governed the movements of the inhabitants of the deep.

TWO SUPPOSED CAUSES OF MIGRATION.

Two causes, it is true, were regarded as most potent in stimulating and directing the course of fish, viz.: the search for food, and the search for suitable spawning grounds. But while there is some foundation for this view, yet it will not, in strictness, apply to most cases, for appropriate food is very widespread, and not limited to special localities, excepting in very exceptional instances, while the discoveries of science in recent years have shown that the spawning process might be appropriately performed in almost any area through which migrating schools of fish may pass.

FISHES MOVE WITH FIXED REGULARITY.

Far from being erratic and wholly uncertain, the migrations of fishes exhibit in general the most astonishing regularity, and so true may they be to their particular migratory course, and to the period or, it may be even said, the exact date of their appearing, that some profound cause is evidently at work; some cause more potent than the search for a favourite feeding ground, or for an accustomed spawning resort. The purpose of this brief report is to show what this profound cause is, and to indicate some of the complex features which modern scientific studies upon fish life have revealed.

PRACTICAL BEARING OF THE QUESTION.

The subject is one of great practical moment, for the determination of wise preservative measures, and of appropriate fishery legislation, and even of far-reaching international fishery policy, depends upon an accurate knowledge of this subject, viz.: the real character of the movements of the schools of fishes in their native waters.

MIGRATIONS OF FRY.

The migratory movements of fishes begin immediately after they leave the egg. In fresh water the young hide in pebbly rough ground at the bottom, and move into smooth sheltered shallows, as soon as they are strong enough to swim with some vigour. At first they are weak, and in most cases swim with difficulty, owing to a large sac of food yolk attached to the underside of the body. In the sea, the yolk-sac may act as a float and the young fish wriggles along in a reversed attitude, back downwards. The fine-meshed tow-net of the naturalist captures immense numbers of these small newly hatched fish which abound within a fathom or two of the sea's surface.

PROFESSOR MCINTOSH'S GREAT DISCOVERIES.

Thanks to marine biologists in Norway, Britain, France, Germany, the United States and Italy, a large mass of information is now available regarding the eggs and early life-history of marine fishes; but no researches compare for extent and value, with those of the famous Scottish zoologist, Professor McIntosh, whose investigations have been recognized in all countries for nearly 30 years as the most important and valuable of all. His scientific reports on fish-life in the North sea, were published in the Royal Commission's Report on Trawling, London, 1884. Professor McIntosh's were the first systematic studies actually carried on upon fishing boats and tugs out in the sea, and in experimental tanks at the marine laboratory, St. Andrews, with the object of deciding the spawning habits, nature of the eggs, character of the young, and their migrations in the sea. These studies have been carried on continuously to the present time.*

PERSISTENT HABITS OF YOUNG FISH.

The migrations differ somewhat in various species, but their ascent or descent vertically, or their movement from shallow to deep water or *vice versa*, have been proved to be as certain and unchangeable as the seasonal travels of migratory birds. Storms, winds, &c., may delay or even divert them somewhat, but their courses on the whole are fixed and unfailing. Thus the young cod' says Professor McIntosh in a recent address,* the green cod, haddock, and whiting, after their earliest (larval) stage, are oblivious of currents in their movements—on the one hand to shallow, and on the other hand to deep water, and the same may be said of the young flat-fishes. There is no reason to believe that the hardy adults are affected by temperatures, currents, or salinity in a greater degree, except in so far as storms may sweep into bays greater quantities of food.'

STUDIES ON FLAT FISH (THE PLAICE).

The plaice which is one of the most abundant and valuable of European flat-fishes has usurped a large amount of attention since its eggs were first hatched and its stages of growth to the adult condition studied, and figures drawn at St. Andrews, Scotland. Other younger workers have since then published results, in later reports, but they are singularly at variance. 'Dr. Bolan, the German experimenter' as is pointed out in

*Two lectures 'Scientific Work in Sea Fisheries, Royal Inst., London, May, 1907.

SESSIONAL PAPER No. 22

the Royal Institution lectures already referred to,* differs from Dr. Garstang, the former stating that plaice leave the coasts in summer and autumn, and return in spring, whereas the latter gives spring and summer as the period of migration to the off-shore. Here, then, is considerable variation in the results, and neither agrees with the condition at St. Andrews. Many supposed phenomena of migration are found to be outside the regular movements of the fishes referred to, while the alleged scarcity of disappearance of fish, especially in the sea, may be due to defective means of capture, *e.g.* the beam trawl or an unattractive bait. Certain observers, under the Scottish Fishery Board, reported the disappearance of plaice from their haunts, but as Dr. H. M. Kyle has shown the introduction of a plaice-seine from 1872-1880 in Danish waters trebled the catches in supposed depleted areas. The use of a new bait, *viz.*: an actinian or anemone instead of the usual mussel bait, revealed the presence of abundant cod and haddock, which were supposed to have declined. The ordinary bait had lost its power to attract them.

MIGRATIONS OF MARKED FISH INCONCLUSIVE.

Experiments with marked fish in the sea have proved most inconclusive. A far safer guide is the course taken by the practical fisherman, whose living depends upon his captures, and seeks the fish where they are. Marked plaices have been found hundreds of miles from the spot where they were liberated. May it not be that like the 'Rat with the bell' in the old story, or the dog with the kettle tied to its tail, these fish carrying an irritating plate, or wire, or other mark, behaved in an abnormal and misleading manner.* The lobsters set free by the United States' experimenters, on the Massachusetts shores, which wandered over a hundred miles, cannot be taken as proof that the vast hordes of Canadian and United States lobsters perform seasonally such extraordinary journeys.† We know that the shad enters certain eastern streams on our Atlantic coast, evidently coming in from no very distant places in the open sea, yet the shad planted in Oregon were found to have wandered 400, 500 and even 1,000 miles, two specimens being captured, as early as 1895, at Rivers inlet, at least 500 miles from the place of liberation. Many, too, have entered the Fraser river.

LOCAL VARIETIES IMPLY LIMITED MIGRATIONS.

There is abundant evidence that fish have their own resorts, and adhere to their own migratory courses. An experienced salmon fisherman can readily determine from what river a certain salmon has been taken. A Godbout (Labrador) salmon cannot be confused with a Restigouche fish, or the latter identified with a Miramichi or St. John river salmon. All differ in form, build, average, size, &c. Nay, a fish so uniform in size as the sockeye or blueback salmon (*O. nerka*) of the Pacific coast, shows similar local peculiarities. A Rivers inlet sockeye is of larger size, it is claimed, than a Fraser river fish, while the red flesh is paler than that of the sockeye of the Nimpkish river, only 40 or 50 miles away. The Nimpkish salmon average, one important canner said, 16 to a case (48 lbs. weight) though an exceptionally large sockeye was taken in that river, in 1895, for 10½ to 11½ salmon filled a case of canned fish. Further, it is said that in the same river, particular 'runs' make for specified tributaries or upper waters. 'I can tell a Harrison river sockeye,' said a pioneer salmon canner on the Fraser river; yet there are at least seventy-five tributaries of the Fraser river to which

* Lecture II., p. 8, reprinted from the *Zoologist*, 1907.

* In the Lancashire Sea Fisheries Laboratory Report, 1907, p. 128, Mr. J. Johnstone, that in some species the flesh is chafed and a bad wound caused by the marked label.

† Dr. Alex. Meek refers in his report on 'Migrations of Crabs' that from the records it is shown that 'the males may remain in the same region for several years.' *Sci. Invest. Northumb. Sea Fish. Rep.*, 1906.

the salmon schools ascend for spawning purposes. A similar statement may be made in regard to the sea herring, of which the Loch Fyne variety has long been generally recognized. On the great lakes the common whitefish (*Coregonus*) exhibits distinctive differences in each of these vast areas. All these facts go to show how emphatically local a great many species of fish are, and that even so typical a migratory fish as the sea herring is confined to comparatively narrow limits, the schools in each locality, moving in from the deep water and back again to these feeding grounds, without wandering very far from their native area. There are exceptions to which I shall make reference on a later page.

FISH ARE TRUE TO THEIR MIGRATION ROUTES.

Not only have the fishes, in sea and fresh water alike, their own local habitats, but they adhere very strikingly to their own routes in moving over their restricted areas. It is well known that fish-traps and other nets, set in a particular spot, will make large captures, because the schools habitually pass that spot, whereas a net placed close by, but just off the specified route, will make poor captures or even take none at all. It has long been known, on all salmon rivers, that the schools have a very definite course, and while winds and tides, storms and currents, may cause modifications, these changes are subordinate and do not affect the general law. The English Severn, as I have mentioned in previous reports, possesses tributaries which to all appearance are as suitable as any others, yet the salmon never ascend them. It is true of all salmon rivers. Such a river as the Skeena, in northern British Columbia, has comparatively few tributaries (as compared with the Fraser), but the main schools (i.e., the sockeye salmon) adhere to certain tributaries only and will not go up all alike. Indeed, they prefer the upper Babine tributaries, to reach which frightful canyons, terrible rapids, and every kind of deterrent, must be overcome; but the nearer easier tributaries cannot tempt them to enter. The immense armies of Fraser river salmon, moving along the Juan de Fuca straits, will not turn aside, though numerous suitable and more accessible spawning ground occur on Vancouver island, such as those up Clayoquot sound, &c. As a prominent Clayoquot salmon packer said of the small schools which passed his locality: 'I thought that these fish were on their way to the Fraser and that we only got a wing of these schools that swung into our sound, but the longer I stay there, the more I am convinced that they are peculiar to their localities. They seem to run regularly, and the big (Fraser) run does not affect them, which I think would be the noticeable feature if they were in any way connected with the Fraser river run.* Not only is this the case, but the salmon on reaching the upper waters, when a fork occurs in the tributary up which they are moving, will unfailingly select one fork or branch, season after season. In the Nicola valley there is a salmon stream which divides into two owing to an island in midstream, and across the left channel a barricade was built for lumbering purposes. The salmon could not surmount the barricade, but they would not ascend the right or open channel. The local Indians said: 'The salmon know their way and that right channel is not their channel.' The bands of Indians above could not get their food supplies of salmon and complained bitterly. Certainly in large estuaries like the Bay of Chaleurs, the salmon moving into the famous Restigouche river prefer the southern or New Brunswick shore, and the salmon nets on the Quebec or north side are therefore few, and their catches have always been smaller than on the opposite shore.

MIGRATIONS NOT ALWAYS AT SPAWNING TIME.

While fish, as a rule, move in large schools as spawning time approaches† and anadromous species move into rivers yet there are regular migrations, which have not

*At intervals every fourth year is the popular view, the Soceye Salmon run in exceptional abundance up the Fraser river.

†There are exceptions. The Caspian herring, *Cleupea Kesslere*, Dr. Kousnetzoff, says 'remonte individuellement, et non par bancs, le haut Volga, &c.' Rep. Int. Congress Fisheries, Paris, 1900, p. 111.

SESSIONAL PAPER No. 22

this purpose. The smelt, for example, is a spring spawner and in March or April deposits its eggs in brackish water near the mouths of rivers and in estuaries, but, in such a river as the Miramichi, immense schools of smelt enter the river in November and December. At that time enormous catches are made through the ice. Indeed the greatest catches of the year are then secured. So far as known there is no particular food at that time to attract them in, and they are not approaching the spawning condition, which is attained four or five months later. Schools of sturgeon migrating from the sea have been similarly observed, long before their spawning period. Fraser river fishermen claimed that they came in after the smelt, in February, and fed upon them as voraciously as the Labrador cod feed upon the smelt-like capelin (*Mallotus*) when these small fish approach the shore for spawning purposes. This early run of sturgeon was in February, 1895; but the great runs of these fish were in the fall in August, and later, when drift nets were used in the night at 'slack water.' Ten or twelve years ago I saw large runs of half-grown pike (*Esox*) passing up small streams in the northern Saskatchewan district, northwest of Canada. They were so numerous that I procured a number by striking them at random with a long pole, and they proved a welcome addition to our camp fare. The descent of eels, in large schools, down rivers is now understood, since it has been proved that these fish spawn in the sea. The young eels $3\frac{1}{2}$ or 4 inches long ascend in spring some weeks after they have hatched out.

UTILITARIAN THEORY INAPPLICABLE.

Now, while there is ground for the view that winds, currents and tides, and possibly temperature, salinity, &c., may affect the movements of fishes, there is no question that the cause of these migrations is more profound. Nor is it sufficient to say that it is of advantage to the fish to move, that they may escape enemies and other dangers, and that on the principle of the survival of the fittest, the kinds of fish that have adopted the migratory habit have survived, while those succumbed that did not do so. If this be true of the shad or the salmon why is it not true of the eel, whose young are hatched out in the deep sea, in the midst of those dangers which it is alleged the shad and salmon escape by being hatched in fresh-water, more or less distant from the sea? The newly hatched herring mounting to the surface of the sea and moving shorewards later 'to form' as Professor McIntosh says 'a carpet on the sandy bays, still maintains its amazing plenitude, while the migratory river herring known as the gaspereau or alewife, having acquired the habit of ascending the rivers to escape the sea's dangers, at the time of spawning, has decreased, and in some Canadian rivers has become almost extinct.

The real reason which prompts fish to migrate from deep water to shallow, or from the sea to remote fresh waters, or like the catadromous eel to descend to the sea for breeding purposes, must be sought in less obvious explanations than mere safety, or more favourable physical and biological conditions.

PAST SUBSIDENCE OF SEA IMPORTANT.

The researches of Dr. Oskar Grimm on the fishes of the Caspian sea no doubt furnish the key to the problem. There are five or six species of herrings in the sea. Moreover, Dr. J. D. Kousnetzoff states the herring in these seas, now no longer continuous, ascend their respective streams at the proper season to spawn. During the rest of the year they remain in deeper water, where food is abundant. 'La plus grande partie de l'année le hareng reste dans les profondeurs de la mer Caspienne,' says Dr. Kousnetzoff, "car il s'y trouve une abondante nourriture dans la masse des êtres vivants, commençant par les crustacés et finissant par le menu, *Athèrnia caspia*, Eichw.

RIVER BASINS ONCE PART OF SEA.

It seems clear that the salmon, shad, alewife and other migratory sea fish, still resort to the regions (the upper waters and chosen spawning sites) to which their ancestors resorted, when these regions still formed part of the sea. As the land was elevated, and the more remote river basins were cut off, excepting by the narrow communications called river, the fish retained their hereditary tendency. This tendency, often called instinct, is so strong that all the endless obstacles to accomplishing the migration cannot deter them. Rocky canyons, rushing rapids and falls, landslides filling up river channels, predatory birds and aquatic mammals, fishermen civilized and savage, bears, foxes, seals and all manner of enemies make war upon them. Man erects dams and barriers or pollutes the waters with factory refuse, but the hereditary instinct is too strong to be crushed down.

HARDSHIPS OF MIGRATING SALMON.

The fish take no food, they become emaciated, warm, and injured, and multitudes die on their long journeys, sometimes 1,000 miles or more from the sea. 'The salmon,' said Dr. Turlington H. Bean, 'would have been better off, it appears, had it never been born in fresh water, where its dangers are cumulative and deadly.' In the sea it is plump, silvery, and free from disease, the areas open to its wanderings are illimitable, it has abundant room to flee from its enemies, and man has sought in vain to net or capture them in the open ocean. Yet so uncontrollable is the migratory tendency, hereditarily implanted, that it must perforce move shorewards, seek the mouth of its chosen river, having gained which it ceases to feed, deteriorates, becomes diseased and quarrelsome, and even dies under the harsh conditions of its sojourn in fresh water.

NUMBERS OF SALMON DIE.

In all salmon rivers a proportion of parent fish die from wounds or exhaustion—in some Scottish rivers a considerable number do so; but the opinion has been expressed that in British Columbia, and Pacific salmon rivers generally, no adult salmon survive the migration from the sea; a statement which is without doubt, extreme. There is proof that not all die, and the late Dominion Fisheries Inspector, Thomas Mowat, stated his view (in 1892) that about 25 per cent of the British Columbia salmon runs return to the sea, and the statement is doubtless not far removed from the fact.

LAND-LOCKED VARIETIES OF SEA FISH.

The salmon is certainly a sea-fish, like the shad and gaspereau, and its spawning sites, now far removed from the sea, were once part of the ocean; but have, as stated, been cut off. To reach these ancestral spawning grounds the salmon must migrate; but its return to the sea is not absolutely essential. There are indeed, land-locked salmon. In Scandinavia, Russia, United States, and Quebec and New Brunswick (in Canada) salmon are found which do not migrate to the sea. They might do so in some cases, as in the cases of the Chamcook lakes in New Brunswick, but do not do so. The land-locked salmon of Lake St. John, Quebec, can descend to the sea, but could not return if they did so. Whether now cut off by geographical conditions or not, the hereditary instinct has been lost, just as the domesticated duck has lost its migratory instinct. Such instincts or tendencies are difficult to eradicate, and the hunting, especially the bird-catching tendency of the cat-tribe, is still strongly retained by the domestic cat in spite of its ten thousand years of association with man.*

SESSIONAL PAPER No. 22

I have elsewhere dealt with the possible modes in which land-locked varieties of sea-fish may have originated. Hence the occurrence of smelt in Loch Lomond, New Brunswick, can be understood, or even their occurrence in lakes in the Gatineau region, far removed from the sea (600 or 700 miles). Hake (*Nerlucius*) are known to take to a fresh-water life, and one Gadoid, the Burbot or fresh-water Ling (*Lota*) is purely a fresh-water species, and occurs in the most remote lakes of northwest Canada, as well as the great lakes and connected waters. 'Fishes are not so sensitive to changes of temperature, to change in salinity, or to other phenomena, as supposed; neither do they dread currents. Professor McIntosh recently pointed out: 'The salmon, the sturgeon, and the eel are at home both in the sea and fresh water, and the flounder, the mullet, the sea-perch, the sprat, and the sparring, take little notice of varying salinities. The Baltic herring can readily be acclimatized to fresh water, even to the extent of being killed, if by accident it suddenly falls into sea water.

HEREDITY IS THE CAUSE

The migratory instinct is an old, hereditary and deeply implanted tendency, and the surprise is, not that it is retained so strongly in the salmon and similar fish; but that it is ever lost. Just as the migration of birds cannot be fully or satisfactorily explained on grounds of utility, or of intelligent observation and ratiocination, yet is so wonderful that a pair of swallows will leave their nest, migrate across France and the Mediterranean to Algiers, and in the following spring will return, not only to the British islands, or the same parts of those islands; but to the very barn or house, where their old nest is still to be found. The 'homing' powers of pigeons and of cats, indeed, all the phenomena of animal migration are to be traced to heredity, and in the case of fishes, can be explained as set forth in this report.

SOME FISHES POSSIBLY NON-MIGRATORY.

There are some fishes which do not, so far as our present knowledge goes, show this pre-determined and fixed character. Such fishes appear to be neither true to an established route of migration, now confined in their movements within local and limited bounds. The sharks and dog-fishes in the sea are erratic and uncertain they resemble the wolves, which may infest a district for a time, destroy the deer, and then move to other regions. Hordes of dog-fish, and schools of sharks, seem to have the same erratic hunting instinct. In fresh-water the carp, introduced into Canada twenty or thirty years ago, and the native cat-fishes, appear to have no settled migrations, or fixed geographical bounds. Like the house-sparrow (*Passer domesticus*) they wander everywhere, and make themselves at home everywhere. More accurate studies may show that even the carp has local and regular migratory movements. We know that the whale tribe, long regarded as the wandering monsters of the deep, have habitual courses, and move with great regularity along 'beats which the whalers discover without difficulty. The eel is one of the few catadromous fishes known. It descends to salt water to spawn, though in remote inland waters as in Canada, it may, like the abundant fish-water gadoid, the burbot or river ling, spawn in fresh water. That remains to be discovered; but the eel, it must be remarked, is a highly specialized and much modified fish, and its habits afford no light upon the general laws of fish migration.

* Cats are found in the tombs of their owners in Egypt embalmed, indeed mummy cats are of common occurrence dating back 10,000 or 12,000 years at least.

SUMMARY.

The importance of the facts dealt with have a direct and vital bearing on fishery legislation, and the difficult problems of appropriate and effective fishery regulations. If valuable food fishes are restricted and local in their habitats and in their movements; if they are controlled by rigid hereditary instincts, that fact will dictate in many ways, the kind of protective measures which will best preserve the fish. The points may be briefly stated as follows:—

1. Young fish in their first stages have a vertical and, later, a horizontal distributory migration.
2. Maturing and adult fish move from deep into shallow water, and do not wander widely, while anadromous species are true to their routes, return to their own rivers, and even return to particular tributaries or spawning sites.
3. Fish schools also migrate when not seeking spawning grounds and probably not in search of food.
4. Heredity affords the best explanation of the remarkable phenomena of fish migration.
5. The existence of local varieties (salmon, herring, &c.) proves that these typical migratory fish do not traverse vast distances, or scatter fortuitously.
6. Few fish are erratic, and such form notable exceptions to the general rule, that migrations are regular, geographically restricted, and under the potent stimulus of heredity.

II

UNUTILIZED FISHERY PRODUCTS IN CANADA.

By PROFESSOR E. E. PRINCE, COMMISSIONER OF FISHERIES FOR CANADA, OTTAWA.

The utilization of waste products is one of the most remarkable features of the manufacturing world to-day. The fisheries have been an exception, almost the sole exception among the great industries of the world, and little has been done to turn to account the waste materials and by-products yielded by the fish business. The flesh or muscular tissues of fish and in a few instances the liver, are almost the only portions that are, speaking in general terms, made of commercial value. The head, fins, tail, skin, bones or skeleton, entrails, and various internal parts are usually thrown away and wasted. The amount of offal or 'gurry' and other waste materials produced at great centres of the fishing industries is astounding. But apart from these by-products, which are unutilized, though the waste is fully recognized, there are also vast quantities of materials of value going to waste and unutilized because no one recognizes their value, and few realize that they exist.

It is true that at intervals some venturesome authority announces to the world that sources of wealth are being ignored, and many cases might be instanced of schemes of utilization which are absurd and impossible. The public and governments have been repeatedly led astray through the mistakes or the ignorance of persons, not possessed of adequate practical and scientific knowledge to see the impracticable nature of their schemes. To the ordinary observer, indeed, they may appear feasible, and commendable.

A science which aroused much attention a few years ago referred to the utilization of lake herring. It was thought by persons not properly informed that a cured or pickled herring industry might be created on the Great lakes of Canada, and just as Scottish cured herring were in demand, at very remunerative prices in United States markets, so Ontario cured herring could be similarly supplied to these markets. The fatal objection, of course is this, that there are no herring in the Great lakes, which can be cured by the Scottish method. The so-called lake herring are not herring at all. They do not belong to the Clupeidæ or herring family; but are really 'lesser whitefish' and belong to the salmon and trout family, which are utterly unfitted for curing in the way suggested. The bones are too few in these lesser whitefish to make a compact salt-cured fish, the flesh is flanky and unsuitable, the flavour is inappropriate, and barrels of such fish shipped to the markets would entail loss upon the shippers. The whole scheme was Quixotic and impracticable.

Every one knows the wonderful story of the utilization of coal-tar products. These were formerly regarded as waste and valueless; but the ingenuity of the late Professor Grace Calvert, of Manchester, England, showed that valuable dye-matters (aniline dyes) could be extracted from the gas-tar. Later, odours or scents, and the most delicate and exquisite flavours, those used especially in confections and sweet-meats, were extracted. Later still, glycerine, vaseline, and numerous oleagenous products were obtained until the waste by-product, the valueless coal-tar has become one of the most valuable materials in modern industrial enterprise. Other cases might be instanced; but it is in the field of fisheries that products of great value exist which have not yet been turned to account.

That in important fishing centres where wealth, intelligence, and enterprise abound, there should continue, year after year, the most extensive waste of materials

containing products of importance and value is truly astonishing. The fisheries, indeed, offer a promising arena for investigation in this regard, and this report is intended to direct attention to some of the unutilized materials which are available for utilization in Canada.

HOW PRODUCTS ARE WASTED.

There are three principal ways in which fishery resources of value are going to waste or rather are not being utilized so as to bring adequate returns. First there are products which are being thrown away and got rid of as useless which are of value if properly handled; second, there are products which are being so badly utilized as to bring the smallest returns possible; third, there are products which are not neglected and not recognized as included in our fishery resources at all. There is of course danger in the attempt to place on the market a new product and human ingenuity may devise methods of turning out fish for food which are reprehensible.

REPREHENSIBLE METHODS OF UTILIZATION.

Thus it is well known that for many years past quantities of so-called smoked whitefish and smoked salmon sold in Chicago were not smoked fish, and had never undergone that wholesome method of preservation. These whitefish, probably deteriorated by being kept too long, were chemically treated and coloured by means of aniline dyes so as to resemble in colour the smoked whitefish which is so much in demand. Salmon, too, had been treated in the same way, and the method not only resulted in fish resembling the smoked product in colour, but there was no loss in weight, as there always is during the genuine smoking or semi-cooking process. In January last year the officials on one occasion seized five tons of salmon in Chicago, which had undergone no process of smoking whatever, yet in colour and to some extent in odour they were a good imitation of smoked salmon. A well known United States journal thus referred to the seizure of a quantity of these fish: 'Assistant City Chemist Francis J. Seiter has been analyzing the seizures, and he says that the fish are not only coloured to give them a nice appearance but that it is done because smoking fish reduces the weight while dye adds to it, therefore making a greater profit for the dealer, and a corresponding loss for the consumer. "One hundred pounds of fish which is treated by being smoked will weigh but sixty pounds, after the process has been gone through with," said the assistant city chemist. "If the fish is dyed the loss will be but a few pounds. All of the fluid in the fish is preserved and therefore a big loss in weight is saved. The manufacturers of aniline dye guarantee that 100 pounds of fish treated with dye will not lose more than 20 pounds to the hundred. The loss in weight is always much less than this."'

A good deal has been said, during the last year or two, about the canning of dyed carp and other artificially coloured fish, and their sale in the markets as Pacific salmon. The best markets, such as the London market, to which Canadian canned salmon has always been mainly shipped, cannot be deceived, and will not buy or handle these false products where, however, there is an overwhelming population usually on the verge of extreme poverty, there is a sale of such goods; but the good repute of Canadian fish will not permit of the encouragement of these nefarious methods. Our fish packers and dealers must, in their own interest, put only the best food products on the market and thus maintain the reputation and ensure the demand for Canadian fish. Six or seven years ago there was an outcry against certain shipments of fish from eastern Canadian ports, to Porto Rico, and there was actually a protest issued by the Porto Rican Board of Health in 1901 against such fish. 'On many occasions large quantities of cod-fish have been condemned as unfit for use. All the samples,' the board stated, 'were poor in quality and much of it of such low grade that it could not be sold at any price.' The resident British consul forwarded the representations, and

SESSIONAL PAPER No. 22

while it must be admitted that there has been carelessness in cleaning and curing many catches of cod and other fish in the Maritime provinces, it is also true that no cured codfish in the world can compare with the Canadian catch on the whole. It certainly compares well with the American catches on the same banks, and our methods are not inferior to theirs. The trouble in Porto Rico, it was hinted, arose from a desire on the part of United States shippers to bring Canadian fish into disfavour, and leave the field open to themselves alone. A similar prejudice was created in Europe regarding canned lobsters, which were reported to be of poor quality, whereas the United States lobsters were graded as of high quality. Parisian and London buyers were frequently impressed by this claim of United States superiority, whereas almost the whole of the United States shipments of lobsters are Canadian lobsters, caught in Canada, and packed here, and shipped to Europe via United States ports through American middlemen and agents.

BEST PRODUCTS ESSENTIAL.

While the above is true, it remains no less imperative that those, who put up and handle fish products in Canada, must maintain a high standard and thus secure, as was the case for many years with British Columbia, canned salmon, a better price than that paid for United States and other canned salmon. Fifteen years ago I personally called the attention of prominent curers and merchants in Halifax, N.S., to the absolute necessity of avoiding carelessness in gutting and cleaning fish, and in preventing their undue exposure to the sun, when on the vessels and wharfs. I so reported to the Minister of Marine and Fisheries at the time, and have my report now before me; but one curer to whom I objected that there was too much 'blood' remaining below the backbone, near the shoulders, gave me the reply that the 'negroes of the West Indies preferred strong smelling fish.' The so-called blood is really the decayed kidneys, dark red organs, which are most offensive when they become putrid.

The quality then of our present fish products must be maintained and improved whenever possible.

KNOWN NEGLECTED RESOURCES.

Before referring to industries that can be created by utilizing products not recognized as food products at all by fishermen, I may, in passing, refer to the long neglect of fisheries, of which our people were well aware; but to which they were indifferent. Thus clams which abounded on our Atlantic shores, and eels which ascended in countless millions up our eastern rivers from the sea and grew in fresh water to large dimensions, were for a long period wholly neglected. On the Pacific coast the neglect was even more extraordinary. When delivering an address in the rooms of the Vancouver Board of Trade in 1895, I first called attention to these neglected resources, and the matter was emphasized in certain articles in a Vancouver newspaper from which I culled the following:—

FISH OTHER THAN SALMON.

Two promising developments have marked the fishing industry. One was that the export of fresh fish has been established and with a success that indicates permanency. The other is that sudden attention has been bestowed in the curing of fish and the prospect of securing a market has presented itself. To write a chapter on the fish of British Columbia which would do justice to the subject, would make it too long for the purpose of this article, but to omit all reference to it would be presenting Hamlet with Hamlet left out.

Briefly, without giving scientific nomenclature, the fish most abundant in the coast waters are: Salmon, of which there are about six varieties, not including salmon

trout (*Salmon purpuratus*) which some authorities alleged to be the true salmon and not our salmon of commerce; cod, of which there are several varieties, exclusive of the whiting and 'skil' which belong to the *Gadus* family; halibut, or giant sole, very abundant in northern waters and of great size and fine quality; herring, smelts, sardines, sea bass, flounders, soles (wrongly so called locally), and oulacons. All these are fish of commercial value. A few others, such as Tommy cods, grey lugs and capelin, are offered very rarely. The fresh waters inland contain in great abundance trout, sturgeon, land-locked salmon and species of whitefish. The sturgeon grows to an enormous size, sometimes caught weighing 1,000 lbs. The cod banks of British Columbia have evidently not been definitely located as yet, for while the young cod come into the bays and inlets in large quantities, the parent fish is not caught in sufficient numbers to warrant the belief that his peculiar habitat has been discovered, though it has been fairly well in Alaskan waters.

For four or five years back there has been a conviction in the minds of many that the export of fresh fish to the large centres would pay, and that it would ultimately assume large proportions, but numerous ventures and experiments were made without success, and it seemed as though British Columbia was too far from the market to promote any trade of importance. However, last year several carloads of fresh salmon and halibut were sent to New York, and while the venture did not meet with any great financial success, the result justified further attempts in the same line and this year they have been followed up somewhat energetically. It is the intention of several companies engaged in it to continue shipments throughout the year. Trial shipments of fresh fish, principally salmon, were made to China and Japan, Australia and England, regular shipments being continued by the Alaskan steamers.'

There need never be difficulty in disposing of fish products, for there are many countries, which have practically no fish of their own, to which Canadian shipments could be sent if once a systematic scheme were decided upon and properly launched. Four or five years ago Mr. E. E. Sheppard, who had been Canadian Trade Commissioner in Central America, called attention in an address in Toronto to the curious fact that while Canada, with its rich and varied fisheries had practically no fish trade with South America generally, yet Germany, which was not a fish-raising or fish producing country, sold large quantities of fish, in various forms, to South America.' A prominent Toronto journal, in a leading article, attempted to deal with the reasons, which appear mainly to be indifference and lack of enterprise, though it remarked regarding Canada that 'the Dominion, probably the greatest fish raising country in the world, sold comparatively nothing in the way of fish to those countries. It is quite likely that the lack of means of conveyance has something to do with the conditions so far as Canada is concerned which Mr. Sheppard points out.'

Happily there has been a change during recent years; but South America still offers a great field for fish business.

FOREIGN FISH PRODUCTS INSTRUCTIVE.

Nations like the Norwegians and Japanese have always utilized a vast number of fish products which we ignore. The fact that Canadian waters have produced in unparalleled abundance the most superior kinds of fish, salmon-trout, whitefish, pike, perch, sturgeon, &c., in the inland lakes and rivers, and cod, mackerel, haddock, smelt, herring, lobsters, oysters, &c., in our seas, amply accounts for our indifference to other fish products which are viewed as inferior. In Mediterranean countries, Italy, Spain, Greece, &c., the fish markets abound in edible marine products, which no Canadian ever thinks of eating. The Chinese, Japanese, and our native Indian tribes regard as luxuries many fish and other produce of the waters, which we view as beneath contempt. Just as the Scotch reject shrimps, prawns and cels from their list of table delicacies, while the English regard them as dainties, so the French

SESSIONAL PAPER No. 22

esteem the crayfish and certain mollusks, which are not on the Briton's usual bill of fare. A Halifax correspondent, two or three years ago, gave the details in a local paper, and said of his experience at Japanese dinner tables:—

‘Other articles which I have eaten in a single full course are fish, soup, fried fish, baked fish, fried eels and rice, pickled eggs of sea urchins, dry octopus or squid, boiled abalone, sea weed jelly and shredded whale cartilage pickled.’

THE CARP.

I have in a previous report dealt very fully with the carp question,* but as chairman of a special fisheries commission, which has been taking evidence, during the last two years, along the waters of western Ontario, I have been once more impressed with the serious nature of the ‘Carp Question’ in Canada. It is true the fishermen generally view the matter with less alarm for, at certain times of the year the carp are in demand in United States markets, and bring remunerative prices, especially as the fish increase in numbers very fast and grow rapidly to a large size; but carp will never be a popular article of diet in Canada unless put up in some appetising form. The fishermen themselves, who capture carp, confess that they do not eat these fish, they much prefer good whitefish, lake herring and pickerel or doré. When smoked the German carp acquires a dainty flavour, and a tempting appearance. It appears that a large new industry could be created with a little enterprise by sending these fish into the market. The carp are split open, cleaned, sliced into long thick strips and soaked in salt and water for about twelve hours. The brine should not be too strong, a little experience enables the curer to judge of the right quantity. The salted or pickled strips are then placed in a smoke-house or smoking receptacle, laid out on a frame over a smoky fire. Maple chips, corn cobs or other agreeable smelling combustible materials may be used for the fire, and by placing the frame on which the fish is spread 18 to 24 inches from the fire, the heat and smoke partly cooks and smokes the fish at the same time. Care must be taken that the fish do not acquire a disagreeable black colour, as in the case of some sample shipments of smoked carp sent to the Buffalo markets the black colour was objected to. If the fish are properly smoked there is no objection to the adoption of an artificial yellowish brown dye, or stain such as burnt-sugar fluid, which will give them a more appetising colour. Smoked sturgeon is regarded by epicures as one of the finest of edible fish products, and smoked carp has been declared by experienced Ontario fishermen as equal to sturgeon so prepared. There is no doubt that smoked carp would bring a much better price than ordinary fresh carp, the price of which during a part of the year is very low.

IMPROVED MEANS OF UTILIZATION URGENT.

There are many fish, which by a slight process of curing can be made to yield far larger returns than when sold fresh. Had Scotland shipped all herring in a fresh or slightly salted (semi-cured) condition to Germany, Russia, or other countries, to be there converted into other food products, there would never have been built up the great Scottish herring industry of to-day—one of the most profitable and important fishing industries in the world. On the Atlantic coast, Canada ships, in a fresh condition, vast quantities of half-grown herring (called sardines) to the so-called sardine canneries in the State of Maine. The value in 1905 was nearly \$700,000; but had these fish been manufactured and packed in Canada the value would have been about ten times as much.† Canning on a small scale is now proceeding in New Brunswick, the

* The place of carp in fish culture. Supp. I., 29th Annual Fisheries Report, Ottawa, 1897.

† The value of this U. S. sardine industry ranges from \$5,000,000 to \$7,000,000 per annum.

value in 1904 being \$32,000 (for a pack of 694,200 cans); but in the future this industry, involving the employment of a large amount of labour, the building of machinery, making of cans, &c., will no doubt develop on our own shores just as the lobster canneries have grown on the same eastern shores to be a vast industry.

CURED VERSUS FRESH HERRING INDUSTRY.*

A similar loss of business has continued for many years on the Pacific coast. British Columbia firms have exported in a fresh or semi-fresh (slightly salted) condition, immense quantities of fine herring to the State of Washington to be utilized there either in kippering or as bait or as fertilizer.

This export of herring as raw material brings the poorest returns, and the province of British Columbia would receive one hundredfold returns were these herring cured, or kippered, or canned in the Dominion, or sold as bait direct to the fishing boats at Canadian ports. As United States citizens have been mainly active in encouraging in British Columbia, and carrying on under the auspices of British Columbia firms this herring export, the greater interests of the province were not, of course, recognized; but the limitation of this inferior and less remunerative traffic is the main means for cultivating a profitable and important British Columbia industry comparable to that of Scotland. The Scottish herring curing experiment, carried out at Nanaimo by the Dominion government, in accordance with my recommendation, has proved that British Columbia herring can be converted into a cured product not less valuable than the esteemed Scottish herring. Several important British Columbia firms have already built sheds and wharfs, and commenced Scottish herring curing operations, with every possibility of large developments in the future.

A Victoria newspaper in 1906 emphasized this great possibility, and called attention to the growth of a canned herring industry on the Fraser river, the supplies of fresh fish being obtained at Nanaimo:—

‘The Windsor cannery of New Westminster is taking daily consignments of several tons to the Royal City, where they are being canned and shipped to the eastern market. So great are the orders for fish besieging local establishments that it has been found necessary to put on a night shift, and while a very large force is working in these establishments there is a standing advertisement in the local papers for assistants in preparing the fish for market. Judging from the present outlook, the fishing industry here promises to develop in importance subordinate only to mines.

Yet while this utilization in Canada of fish caught in Canadian waters was thus being energetically started and developed, a serious leakage was at the same time going on, on an extensive scale, viz., the shipping of vast quantities of fresh herring, or very slightly, but not really cured fish, to Seattle and Tacoma, to build up a rival curing industry just across the line, thus competing with our infant industry, with a view to its destruction. I quote again from the same journal:—

‘The herring industry in Nanaimo is now in full swing. The fish are running in a constant stream as never before witnessed this season and the curing establishments are working 24 hours a day with a large staff filling orders that have been on file for months back. There are now no less than three steamers making semi-weekly trips to Seattle and Tacoma with fresh herring. The *Ranger*, *McCullough* and *Squid* are the vessels employed, each of which carry from seventy to a hundred tons a trip. Captain Fulton of the steamer *McCulloch*, which cleared yesterday for Seattle, loaded to the water line, says that an enormous market for local consumption is being built up in Seattle. Now that Seattle people are being introduced to the delicacy of Nanaimo herring, the demand is growing steadily. From other parts of the state of Washington

* The late A. R. Milne, C.M.G., customs collector, Victoria, B.C., said in 1895: ‘There is not a systematic herring fishery in the whole Pacific coast, yet the Sandwich islands want them.’

SESSIONAL PAPER No. 22

orders are also coming in for Nanaimo fish, so that this avenue of the herring industry is proving a profitable one for those engaged in it. Just now, Seattle dealers are placing Nanaimo fish in cold storage so as to be in a position to handle outside orders.'

ONTARIO PICKLED HERRING IMPOSSIBLE.

As all experts are aware, there are limitations to the curing and canning of fish. All fish cannot be satisfactorily cured or canned, and many mistaken projects have been urged by persons lacking in knowledge and experience. Thus, the scheme set forth in Ontario four or five years ago that a Scottish herring industry could be created on the great lakes was most absurd, for two reasons:— (1) The so-called lake herring are really lesser whitefish, and will not stand curing in the way the herring will, with its very numerous bones holding the flesh well together. (2) The trade would refuse to accept as herring an unsuitable pickled fish such as the small species of whitefish, miscalled by all the fishermen, lake-herring. For the same reason, viz.: the nature of the flesh and bones, the smelt cannot be satisfactorily packed in tins. The smelt, like the so-called lake herring and the whitefish are salmonoids, and have more of the nature of the salmon and trout than the herring or sardine, hence experiments tried in New Brunswick were not satisfactory. On opening a can of smelts the meat was found to have fallen from the bones and had a dry 'jumbled' appearance and far less appetising than the compact neat-looking sardines, though the flavour was excellent. The delicious candle-fish or oulachon of the Pacific coast, like the smelt, is not suitable for canning, though the United Empire Salmon Company, with ample capital proposed to experiment in the northern British Columbia rivers in putting up canned oulachons. The best method of pickling and preserving in kegs though if nicely put up in long narrow bottles in vinegar or other preserving fluid, they might be a success in the markets. As the flesh adheres loosely to the backbone it falls off in 'chunks' when cooked and canned.

TUNNY INDUSTRY IMPOSSIBLE.

No one acquainted with the great Tunny fishery of the Mediterranean, or familiar with the flesh of that fine fish when placed on the table, can doubt that, if the large specimens of the Tunny (*Thynnus thynnus*) caught every season on our Atlantic coast could be preserved and marketed, a demand would spring up for it. Its importance in France is next to the sardine, as M. Pierre Lemy, a preserved food merchant in Paris said, 'Après la sardine le thon (tunny) est, en France, le poisson qui est-l'objet de la fabrication la plus importante dans le genre d'industrie dont nous nous occupons ici. La majeure partie du thon pêché dans le golfe de Gascogne est capturé par des pêcheurs bretons ou vendéens qui ramènent leur poisson dans les ports où existent des usines de sardines, sûrs qu'ils sont d'y trouver l'écoulement de leur butin. La plupart des usines de sardines fabriquent, en effet, du thon conservé.' —(Paris Exhib., 1900, Memoires, Congrès International d'Agriculture et de Pêche, p. 358).

The mode of putting up the flesh of the tunny may be briefly stated:—The fresh fish deprived of the head, tail, fins, and entrails, is cut into large pieces and boiled in salt and water. After thus being cooked, the pieces are dried in chambers through which passes a strong current of air through numerous openings. The dried portions are cut down to appropriate sizes, placed in cans, covered with olive oil, sealed hermetically, and boiled in retorts like sardines. The tunny being allied to the mackerel, has a good flavour and is in high favour where its qualities are recognized. They are called mackerel sharks in mistake, also horse-mackerel, in Canada, and excepting that the Gaspé residents have been accustomed to salt a few in barrels at times they have been usually thrown away and wasted when captured by the fishermen. I have

seen them rotting on the beach at Yarmouth, N.S., and in Gaspé basin, P.Q. Smoked tunny, and bonito, really a smaller species of tunny, are popular in Japan. As Sir Frederick Nicholson says, it is an excellent product,' economical in use, and will keep good for years.' The same authority informs us that the fish after being opened and boned is cut into longitudinal strips, boiled or steamed, dried on trays in the open air and then smoked over a slow-combustion furnace which burns various woods and sawdust. A dozen or more trays are piled up so that the smoke penetrates the various tiers, and colours them a dark brown, after which the fish is given a final drying in the open air or in a drier at 70° to 90° F.

SKATE, SHARK, DOG-FISH, SHARK'S FINS, &C.

Skate, sharks and dog-fish are abundant, too abundant, the fishermen think, in Canadian seas; but they have been little utilized. I dealt fully with certain phases of this matter in my former report on 'The Dog-fish Pest in Canada,'* and since then the Dominion Government have attempted in three different localities. Shipigan, N.B.; Canso, N.S., and Mud island, N.S., to utilize these fish, particularly dog-fish for fertilizer and oil. In my report I referred to the edible qualities of the dog-fish family, and on recent visits to Boston I found in that fastidious city that some prominent fish-dealers' stores exhibited choice cuts of a firm white fish labelled 'ocean whitefish,' which was no other than the dog-fish (*Acanthias*) of our waters. It was regarded as very good by those customers who had tried it. The central part of what is called the 'wings,' i.e., the large breast fins of the skate are regarded even in England as a delicacy by epicures, and skates' 'wings' find ready sale. The Chinese have always held sharks' fins, &c., in esteem. In the *Norsk Fiskeritidende*, February, 1907, pp. 50-55, is a short article on these dried fins, and the Chinese and Japanese markets with an illustration on page 51, showing how the fins require to be neatly cut off at the base and hung, after being salted, to dry. Of eight species of sharks and dog-fishes generally utilized, four at least occur, or almost identical species occur, in Canada, viz.: *Carcharias*, *Alopias*, *Lamna*, and *Mustelus*. The dried fins are sold by the picul (133½ lbs.) i.e., about 16½ piculs to the English or 'long' ton. The price varies according to quality, but may be as much as 50 cents per pound (\$70 to \$80 per picul). They are largely handled by Messrs. Aagaard, Thoresen and Co., Hong Kong, British China, and there is no limit to the market. India, especially the Madras Presidency has largely exported shark's fins to China. Shark and dog-fish paste is also a commodity in demand, especially in Japan. The flesh removed from the boxes is pounded into a paste, a little salt being added, and it is made into rolls, like rolls of butter, which are steamed for nearly half an hour. These rolls of a lard-like appearance will keep for several days, even in hot weather, and it is in general use. The flesh of sharks and dog-fish has long been a staple article of diet in New Zealand and the Southern Pacific islands, and if these fish, captured in Canadian waters, could be supplied to natives, a considerable demand could be created. The Maoris capture the fish by means of baited hooks.

Fresh mullet is the one bait a shark finds irresistible and will always bite at, but where this is not to be had a very good substitute, and a bait sharks take is the large six-inch mussel, which is to be found in numbers on the submerged sand-banks of the coast.

Great quantities of these shell-fish are collected in readiness ere the season commences, and being placed in heaps on the beach.

But before commencing fishing operations a large loosely woven flax receptacle, containing the pelt and offal of some slaughtered animal, a bullock or a sheep is hung

* The Dog-fish Pest in Canada.' Special Report, Mar. and Fish. Report (Fisheries), 1903.

SESSIONAL PAPER No. 22

over the boat, the blood and savour of it filtering through render the sharks perfectly ravenous. Dozens of them flock around the floating bag, making ineffectual snaps at it as the man holding the line jerks the tempting morsel from their jaws. In the clear water every motion of the fish can be watched, and their rushes at the bag avoided.

The baited hooks are suspended near the bag and considerable catches are made, especially of which are called ground sharks.

Blue-shark, shovel-nose, and hammer-heads are all caught in numbers by the natives, and all are found equally good eating.

None of these species, however, attain a size of over twelve or fourteen feet in length; indeed, the average run of size is from six to eight feet. The flesh of the larger fish is said to be too coarse and strong-flavoured, and the fishermen accordingly discard anything over ten feet long.

The carcasses after being cleaned, are hung in the sun to dry upon transverse poles supported by uprights 20 feet high, and in three or four weeks they are cured, and dry as wood. They are then packed in flax mats and transported in bales to the various native villages. Dried shark has ranked high as an article of food amongst these Pacific natives. The smaller sharks or dog-fishes and their allies, the skates and rays, are, however, better adapted for table use in civilized countries, being superior in texture, colour and flavour, and if properly cleaned, the entrails and skin carefully removed, and the flesh prepared in small 'chunks,' there is no reason why it should not become a general fish food, like the once despised flounders and flat-fishes, the sea cats and frog-fishes, which now readily find sale in the best European fish markets.

ROE OF FISHES.

The eggs or roe of fishes is chemically a nutritious material and caviare, or the prepared roe of the sturgeon is one of the most esteemed and expensive of fish products. The public indeed have made such a demand, especially in the United States, for certain fish containing well developed roes, that the price of fish like roe shad, in Fulton Market, New York, last season, sold at 35 cents each, while shad not containing roe brought 15 cents. At Boston and New York restaurants the cooked roe of a shad costs 75 cents to the retail customer. But roes of fish other than sturgeon or shad have a value as food, though so generally wasted and thrown away with the entrails, as gurry on the great lakes, splendid caviare has been made of the roes of suckers, pickerel or dore, and other fish, by enterprising fish merchants. Such caviare if coloured with some harmless dye should rapidly become a recognized and profitable commodity. The most important demand, in many respects, for fish roes is, however, for use as a lure or bait for attracting and collecting the wandering sardine schools. Just as 'pummy' proved effective in the mackerel fishery off the Atlantic shores, so preserved 'roe' or 'rogue' is valuable in the sardine netting operations. Norway has a most remunerative 'rogue' industry, and Newfoundland has provided a good deal though on account of poor packing it is sought less eagerly than the Norse cod roes. The United States also produces this article. The well-developed eggs of the cod, haddock, mackerel, hake, pollock, &c., are best for the purpose. The roes are carefully removed entire, salted and packed tightly in barrels. They are repacked later in barrels through which holes have been bored one-quarter inch in diameter. The brine escapes through the holes and the roe is preserved in a dry condition. Dr. Hugh M. Smith, in a most interesting report (United States Fishery Bureau Bull., 1901), gave the details of the industry, and points out that the eggs must be separable, that is, well formed, the salting must be carried out while the egg mass is fresh, being placed in layers of dry, rather fine, salt, and after the first packing, should be repacked, graded according to quality or state of ripeness, and finally packed in barrels holding 308 to 316 pounds weight. Loose eggs or broken roes must be packed separately.

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There have been spasmodic attempts to supply the demand for 'rogue' or cod's roes cured in a way suitable for the European sardine fishery, and amongst many references in official reports, I quote the following from a Dominion fishery officer's report about twenty years ago, in which reference is made to the preparation of cods roes on the Gaspé coast:—

'Cod is a delicious fish, and one in which there is no loss. It supplies human food, oil and a kind of glue which is as much prized as that of a sturgeon. Large profits are also realized from the sale of cod roes. The preparation of this article, which yields a large revenue to Newfoundland fishermen, was until lately comparatively unknown to our people; but I notice with pleasure that more attention has been paid to this branch of industry than usual. Four or five years ago the Gaspé people began the preparation of cod roes for export, but, for reasons unknown, the trade was dropped. Having plenty of time on hand this season, they again set to work, and the statistics show that on the coast of Gaspé no less than 622 barrels of cod roes were prepared, giving a revenue of over \$4,000. Newfoundlanders export this article to Norway and France, where it is used as bait for sardine fishing, and sells from \$5 to \$8 a barrel.

'Codfishing on our shores is divided into two seasons: summer and fall fishing. Formerly, the only fish that were dried and went to the merchants were those caught after August 15. The fish caught after that date were salted and sent to Montreal or Quebec in barrels, or were traded for the purchase of winter provisions. But now that almost everywhere in Gaspé, and especially in the western part, the system of engagements is changed, there is so to speak but one season fishing, the summer fishery; since all the fish caught is dried for export.

'Although cod is met with on the whole coast of Gaspé, there are several places where it is found in greater abundance than others, such for instance as Percé and the neighbourhood of Bonaventure island and of Cape Gaspé. In these places also the fish remains a greater length of time than at others.'

Along the Mediterranean, in Japan, China and other eastern countries, the large masses of eggs, orange coloured or reddish, which are contained in the sea-urchins or prickly sea eggs, abundant on our Atlantic and Pacific shores, are sold in the markets as food. They are esteemed as highly as oysters, and as sea-urchins are so very plentiful, they might be turned to account if pickled and shipped in jars, like jam, to the countries where sea-urchin's eggs are an article of diet.

The suggestion has been made that the eggs of dog-fishes and skates, which are obtained in great numbers when these fish are being captured and utilized, might be made of some use. When the dog-fish are being handled at the Government Fish Reduction Works, these eggs (like the large eggs of birds removed from their shells) may cover the wharfs to a depth of several inches. They are most excellent and nutritious food. In my former report on the Dog-fish, I mentioned their use in Scandinavia in the making up of puddings, and recently an eminent English chemist, Dr. T. E. Thorpe, in an official report to the Cornwall County Council, emphatically states that:—

'The eggs of the dog-fish, when boiled, are very similar to an ordinary hard-boiled hen's egg, and a wholesome and highly nutritious food.'

THE SEA-CUCUMBER OR TREPANG.

The trepang is an esteemed article of food in China. It is really the dried sea-cucumber—a large kind of sea slug or echinoderm*—often 12 to 15 inches or more in length and 3 or 4 inches in diameter. These creatures abound on the Atlantic and Pacific coasts of Canada, and may be taken with ease by means of a dredge; yet, so far as I am aware, this abundant food product has never been turned to any

* Often called 'beche-de-mer.'

SESSIONAL PAPER No. 22

account by our people. Their preparation is very simple, and when dried they sell in Canton for \$45 or \$50 per ton. It would cost little to gather them, and as they would find a ready and lucrative sale amongst the Chinese and especially, if shipped to China, that it is surprising no firm has ever entered into the business.

The late Judge Swan, who noticed the abundance of sea-cucumbers or holothurians on the coasts of Vancouver island and Queen Charlotte islands showed some specimens to several Chinamen, who at once declared them to be the best quality of 'whetong,' one of the Chinese names for trepang. The trepang, when prepared for market, is an ugly looking, brown-coloured substance, very hard and rigid, and can be eaten only after being softened by water and a lengthened process of cooking, when it is reduced to a sort of thick soup by the Chinese, who are very fond of it; and when cooked by a Chinaman who understands the art, it makes an excellent dish.

The preparation of the trepang for market is simple. They are to be boiled in water, either salt or fresh, for about twenty minutes, and then slit open, cleaned, and dried. Those dried in the open air or sunshine bring a higher price than those dried over a wood fire, which later is the usual process adopted by the Malays. Some varieties require boiling for only a few minutes, or till they become firm to the touch. They must be dried thoroughly, as they absorb moisture readily, and are then liable to become mouldy and spoil.

Europeans who have tried trepang report that it is very good, and if the trepangs after being gutted are boiled in a decoction of 'artemesia' it is said to be preferable to the salt cure. They should be spread on a bam-boo frame and dried in the sun. New Caledonia, the Pacific isles, Malay, the Ladrões and the New Hebrides supply great quantities; but when dredging in Southern New Brunswick, and in various regions in British Columbia, the dredge was often difficult to haul up on account of the mass of writhing, slimy, sea-cucumbers gathered in the bag.

ABALONE AND OTHER MOLLUSKS.

The abalone, which occurs in the northern waters of Vancouver island, and off Queen Charlotte islands, is valuable both as food and for its beautiful pearly shell.

The massive fleshy body of the abalone or ear-shell (*Haliotis*) is salted, boiled and dried, and is in great demand in China. It is often slightly smoked, while the shell is used in the manufacture of buttons and for ornamental purposes. A long spear may be used in fishing for it from an open boat, though the Japanese fishermen in California and in British Columbia obtain it by diving. A water glass for searching the rocky haunts of this shell-fish is usually brought into requisition. Sir F. A. Nicholson refers to a fishery on the Madras coast and states that the shells alone exported to England during the ten years, 1890-1900 realized nearly \$13,000.

Quite a number of shell-fish could be turned to commercial account in Canada, British Columbia alone producing 16 or 18 different kinds, of which only two or three are utilized. The razor-clam has come into demand in many American cities; but the demand for these shell-fish boiled and dried is enormous in China. Extensive cultivation of these shell-fish is now carried on in Japan.

The pecten or scallop is an esteemed shellfish, which in Canada has largely gone to waste, although used to a small extent for bait. A recent writer, describing the scallop dredging industry of Long island and the method of marketing them, says that in the opening of the clam shells and removal of the flesh, the children of the fishermen are mainly employed. 'A small boy or girl will open a gallon of scallops in one hour and ten minutes, and receives from twenty-five to thirty cents per gallon, according to the size of the shell, large fish filling a measure much quicker than small ones. An expert adult will open two gallons an hour. As it takes two bushels of scallops to yield a gallon, an enormous amount of shells has to be handled. The emptied shells are thrown in piles outside each house.'

7-8 EDWARD VII., A. 1908

The average catch for each boat is thirty-five bushels a day, but when scallops are plentiful a boatload has been known to disgorge one hundred bushels. A large percentage of those taken are seed scallops, and there is need of reform in this respect. They are better for eating after they have spawned, and as the average number of eggs laid by a seed scallop is one hundred thousand, each one destroyed, though only twenty per cent of those spawned might live, means a loss to the industry the following season.

'After being opened the scallops are thrown into water to soak until time for shipment, and here is a "trick of the trade" not generally known. Soaking scallops in water causes them to swell, and in this way a shipper can increase the bulk of his shipment nearly half. Five gallons freshly opened will increase to seven gallons by this process; and it is rumoured that they are sometimes soaked over again by retail fish dealers. This soaking process whitens them, but it takes away their sweetness and fills them with water to such an extent that frying them crisp and brown is almost an impossibility.'

The pecten or scallop, like the cockle and the mussel, is a tough attractive bait, as well as an esteemed table delicacy a portion of which may be prepared like stewed oysters, or served as a soup of the richest and most appetizing character. Great beds of pectens exist, though not generally known, on both our Atlantic and Pacific coasts. They have hitherto been practically unutilized.

NEW BAIT RESOURCES.

Cockles and mussels are of marked value in most countries. Boiled and dried, the Chinese regard them as a delicacy, but cockles are now coming into demand in United States cities and amongst Canadians. There is no more dainty or delicate food. Vast areas on the Atlantic and Pacific shores, could be made to yield quantities of mussels, and in view of the great demand in Scotland for these shell-fish for bait purposes, it might be remunerative to ship them to the British islands, where they have sold for \$5 to \$10 per ton in the shell. Holland exports immense quantities to London and to Scotland, and it is a most profitable business. At St. Andrews, in New Brunswick, the extensive sand flats there are yielding remunerative catches of cockles. The St. Andrews *Beacon* some months ago said:—

'The cockle business is assuming quite respectable proportions in this locality. This season (1906) a number of men found lucrative employment in gathering these shellfish from the beaches, the local price being 45 cents per bucket. The largest exporters say their shipments this season will total up over 2,400 buckets, and they have many orders that they will be unable to fill, owing to scarcity of men. The cockles are shipped direct to the haddocking fleet at various points on the New England coast. They are used entirely by the handliners. Linefish like cod and pollock are very fond of this bait, while the dogfish have no liking for it. In using it the fisherman breaks the shell off and then pounds the meat into a pulp, otherwise it will harden and choke the hook. Each fisherman is provided with a hammer and a small piece of flat iron (the latter being set in the vessel's rail) for this purpose. The demand for this kind of bait is steadily on the increase. It is worthy of remark that this is the only locality west of Portsmouth, Mass., where cockles can be found in paying quantities.'

Other bait products are whelks, anemones and lampreys. The last-named fish abound in certain Canadian rivers and lakes. The Dutch fishermen have long found the lamprey cut into pieces, a most durable and successful bait, and the Thames fishermen sell about \$4,000 worth per annum to the Dutch fishermen for that purpose. They have bought from the Thames fishermen \$3,000 to \$4,000 worth, while the Yorkshire fishermen, at Scarborough and Whitby find lampreys one of the best baits for turbot. New baits are often found to vastly increase the catches in long-line, or 'trawl-line' fishing. Lampreys are also said to be a good food; but their use will probably never be general on the table. They might, if tried, prove most effective in sea fish-

SESSIONAL PAPER No. 22

ing, and possibly hand-line fishing and in sturgeon fishing in fresh waters. A change of bait has frequently most unexpected results. Professor McIntosh has said: 'Careful observations . . . have demonstrated that in their season, and by the use of anemones for bait, and then of gill-nets, cod (said to be so rare) can be caught in hundreds by a single boat.* Again, the same authority refers to the 'substitution of anemones for mussels, of cuttle-fishes or squid for herrings, of lobworms for scallops, and of the alternation of gill-nets with tempting bait of various kinds. Few appreciate the revelations made by such changes of method.'†

SEA-WEEDS AND MARINE VEGETATION.

'Sea-weeds,' wrote Mr. P. L. Simmonds, 'are used directly for manure, for the manufacture of soda, iodine, bromine, and some like Irish moss for the manufacture of *gelose*. Dried, they are used for ornamental purposes. In many northern European countries, sea-weed is used in winter for feeding horses, cattle and sheep, and it is eaten by deer when other food is scarce. Last year United States Consul Rasmussen, of Stavanger, referring to the handsome returns brought by the sea-weed harvest in Southwest Norway, who calcined it and sold the ashes to British agents, pointed out the valuable chemical products yielded, including iodine, and added, this remarkable statement:—

'As a source of income, adds the consul, sea-weed has in a very few years surpassed fishing and agriculture in fortune building. Old debts have been paid off, and land that was formerly unproductive has been drained and filled.'

Of course the amount of iodine is said to vary in the sea-weeds from the different coasts; but whether these plants on the Canadian coasts are rich or poor in iodine can be decided only by tests. In Britain and France, where iodine manufacture is an old industry, the amount of iodine produced by a ton of kelp (kelp is the weed burnt into hard, dark coloured masses or cakes) is 10 lbs., and 20 tons of fresh wet weed makes a ton of kelp. Simmonds stated that 400,000 tons of sea-weed were necessary to yield the annual production of iodine in Britain.

Mr. Rasmussen has afforded much detailed information upon the Norwegian sea-weed industry, and the following may be quoted:—

'The annual income (in Norway) from sea-weed ashes amounts to about \$107,200, but it can be doubled. Every fisherman knows the difference between *alga* and *tang*. Only the former can be used as raw material for the iodine and chloriodic industry: *tang* is entirely worthless. But of the different kinds of *alga*, it is immaterial, or nearly so, whether one makes use of the large, strong stalks or the broad-leaved kind; when the weed is carefully handled, one can secure an excellent product. If *tang* is burned with *alga* the value is decreased considerably, and all such wares should be refused. It is defrauding the purchasers, who might as well buy wood or coal ashes as those burned from *tang*. This has not been clear to the producers, which is only natural when it is remembered that there has not hitherto been produced sufficient ashes to supply the demand, and the product, therefore, has been partly bought without criticism by the manufacturers.

Besides being mixed with '*tang*,' the ashes are often found to be adulterated by sand and stone. *Alga* ashes are also of little value when decayed or rotten weed is used or when the weed has been too long exposed to rain before dried, or when the fire is extinguished by salt water. The best product is obtained, as a rule, from the cut weed, but weed that is washed ashore is often very good, especially early in the year—say, in April and May.

The weed must be fresh dried and burned on rocky ground. Should it rain the weed must be gathered in a heap and covered. Along with the dry weed must be

* Scientific Work in the Sea Fisheries, London, 1907, I., p. 11.

† Id. II., p. 3.

7-8 EDWARD VII., A. 1908

placed some that is damp, to prevent the fire from breaking through, so that no more air is admitted than necessary to promote the carbonization. The burning should take place on rocky ground, so that the ashes will not become polluted with sand and gravel.

We strongly recommend sea-weed burning and careful handling of the product, because our country cannot afford to lose any of its industries. Now that the Japanese have also entered this field, the price of iodine in November, 1905, fell from 29.65 kroner to 16.95 kroner per kilo (\$3.61 to \$2.06 per pound). What difference the price of the prepared article has on the maintenance of this industry one can understand.

The price is governed by several factors. What we can do is to produce good and sufficient raw material for the benefit of our maritime population and our manufacturers by careful handling of the weed. As an example of how necessary it is and how the question of success or failure is dependent on the quality of the raw materials, it can be mentioned that of two competing manufacturers in this country in the production of the same amount of goods, one used 420 tons of ashes, at a cost of \$13,060; the other used 286 tons, at a cost of \$8,040. This difference of \$5,020 in cost of manufacture represents a direct loss for Norwegian industry, and therewith for our nation; loss caused by carelessness and want of judgment. If the struggle for maintaining Norwegian and Scotch industries stands face to face with Japan—and it will come, and come soon—the best chances for success lie with the factory producing the most economically.

One of the most prolific fields for the growth of sea-weed is at Joderen, on the southwest coast of Norway, where it appears as veritable forests of trees from five to six feet in height, with stems as thick as ropes and as tough as leather. The weed sprouts in summer and gradually covers the ocean bed with a dense brush. In the fall the roots release their suctionlike grip on the rock bottom and great quantities float ashore, forming a sea wall many miles along the beach. The fall crop is good only for fertilizer, and is used as such by the natives; but in spring what drifts in is successfully gathered, dried and burned, and during this season thousands of the farmers who own strips of the coast line make thousands of bonfires, some burning as much as 3,000 kilos a year. This is one of the natural resources of Norway about which little was known 20 years ago. During the summer many train loads are sent to Stavanger, whence two or three cargoes a week are shipped to Great Britain. Subsequent use and treatment are to some extent scientific secrets, although the kelp ash is known to be largely used in the making of iodine. The fact that the industry is profitable is shown by the willingness of the English agents to pay a good price, and many of the Norwegian farmers have become rich by selling it. Modern machinery, in the shape of mowers, hayrakes and harrows, have replaced the primitive farm implements in use a few years ago.

In order to keep their Glasgow, Scotland, plant fully occupied, the British Chemical Company, of Clydebank, are encouraging the revival of the kelp industry in the outer Hebrides. Encouraged by the success which has attended their efforts in Tiree, North and South Uist, Benbecula and Barra during the past three years, the company has extended its operations to Lewis and Harris. Nearly £3,000 were distributed in the Island of Tiree alone last season, and considerably more to kelp makers in the other islands mentioned.

The amount of exertion involved in gathering and burning the tangles is light and the average family can earn £1 per day. If a sufficient quantity can be obtained from the Hebrides the company will not continue to get an additional supply from Norway and Ireland.

The common bladder wrack, *Fucus vesiculosus*, is said to yield more saline and earthly matters than most seaweeds, and Pereira found in it nearly 20 per cent of common salt, 12 per cent of potash, the same of soda of lime and nearly 25 per cent of sulphuric acid. A ton of weed yielding 320 pounds of ash would afford $2\frac{1}{2}$ pounds of

SESSIONAL PAPER No. 22

phosphates, iron and lime, $5\frac{1}{2}$ pounds of potash, and other mineral matters, totalling up to over 23 pounds of valuable saline products. Again, as vegetable food many weeds are valuable. The Irish moss (*Chondrus crispus*) is nutritive and emollient and furnishes a jelly valuable in lung complaints. It is dried, bleached by five or six separate exposures to the sun and alternative washings, until it is yellowish white, when it is stored, packed in barrels and shipped to the buyers, which include cooks (for puddings, blanc-manges, &c.), brewers (for clarifying beers), calico printers, paper makers, felt and straw hat manufacturers, &c. Hingham, Mass., U.S.A., at one time shipped large quantities of this so-called sea moss. Dulse (*Scherzymbenia edulis*, Grev.) sold in a semi-fresh condition is in great demand in seaport towns and also inland, and is often eaten with butter and fish, or boiled in milk with rye flour.

Vast quantities of weed are exported to China from Japan and other countries, where it is used as a substitute for dried fish, or as a vegetable, to thicken soups.

The tubular stalklike portions of the large tangle weeds are long used by British Columbia Indians as oil bottles for the storage of oulacion grease, a method of utilizing the hollow rounded proximal part of the plant which the New Zealanders and the Polynesians generally adopted. The most remarkable use of the dense somewhat rubberlike stalks is that of their conversion into form of preserved fruit. Lemon peel, orange peel, and citron, have long been used in the boiled, candied form, but the tubular fleshy stalks of the huge laminarian seaweeds have been prepared in the same manner. After the extraction of the sea water and salt, the stalks, cut into pieces of suitable size, are boiled in sugar, and prepared in an appetizing way so that in appearance, flavour, texture, indeed, in all the essential qualities, this 'candied seaweed is equal to and almost undistinguishable from candied or preserved citron. As a food it is no doubt more nutritious and beneficial than citron, and if the preparation of this seaweed in Washington State, U.S.A., prospers, a great Pacific industry may be developed. Thousands of tons of raw material are going to waste on the British Columbia coast for the giant tangle may range there from 15 to 30 feet in length. Simmonds says that 'Upholsterers and others use seaweeds for stuffing couches, stools, &c., in which they too frequently are substituted for horse-hair. They are used to stuff mattresses, especially for children, because the aromatic odour keeps away insects. Packers use them for wrapping fragile objects.' The same authority refers to the barnacle weed (*Zostera marina*) used for stuffing beds and chairs in France and England, being known as *crin vegetal* in the former country and 'alva' in the latter country. In 1873, Granville, France, exported over 4,000,000 pounds of this dried weed. The annual value was over \$10,000. On the south shore of the St. Lawrence there has for many years existed a similar industry, great quantities of the *Zostera*, or herbe à barnache, or 'l'herbe à outarde,' are annually harvested, especially below low water mark, where scythes are used to cut it under water, from boats. Along the shore of Kamouraska, Rimouski, and along the coast of Cacouna, Isle Verte and Trois Pistoles, this rooted goose-grass or barnacle grass grows abundantly. It is thrown up between tide marks after storms, and the long slender fronds may be 5 to 12 or 15 feet in length. Considerable shipments are sent by rail to United States mattress makers, and the residents make profitable returns. A similar dried weed industry could be created along a large part of the Atlantic coast where this weed grows abundantly.*

CORALLINES AND SO-CALLED WEEDS.

Amongst the materials cast up by the sea on flat beaches, beautiful feathery bunches of what are called seaweeds are abundant. They often have a coralline appearance and are much harder in texture than most true weeds. They are not indeed weeds or plants at all, but colonies of minute animals. These colonies may be slender

* It is estimated that the value of this industry at Isle Verte alone ranges from \$10,000 to \$30,000 per annum. (See Inspector B. Hivieux's Report, Fisheries Report, 1905, p. 81.)

and feathery, or fat and leaflike, but they have a crisp and somewhat velvety feel. In the Channel islands and on certain small islands in the South of England, these so-called weeds more correctly called Hydroids or Zoophyte colonies, are gathered for commercial purposes. On the Isle of Grain it is said that 20 to 30 tons are gathered by the local people between October and the end of March. It is in demand for trimming hats, and quite a demand has been created for it. It is gathered on the sea beach, shells and other matters removed, and after being picked over it sells for about \$250 per ton, London being the principal market. A recent writer says of this little known industry:—

‘The “weed,” as it is known locally, is not cultivated in any way, but drifts ashore and is picked up upon the beach and foreshore at low tide. Exactly where it comes from does not seem to have been definitely ascertained. Some of the inhabitants are of the opinion that it grows in the deep waters of the North Sea, and others think that its native place is in the shallow waters of the Thames estuary. Be that as it may, the Island of Grain is the only part of the coast upon which it comes ashore in marketable quantities.

‘Harvesting the weed provides a precarious and uncertain employment for practically the whole poorer class population of the island. Each gathers for him or herself independently, and disposes of the result to dealers, who in turn forward it to London and foreign houses. A northerly gale brings most seaweed ashore and a single gleaner has been known to pick up half a hundredweight in a morning. At other times, when the wind is in the wrong direction, none will come in for days. The present market price of the partially dried sea-weed, from which all rubbish has been removed, is about sixpence per pound. It must be remembered, however, that the weed is extremely light and feathery, so that a pound, when dried and prepared for use, represents a considerable bulk, and, in the ordinary course, much labour in picking.

‘Queen Alexandra, whose antipathy to the ruthless destruction of birds for the sake of their plumage is so well known, has done much to bring sea-weed back into popular favour as an adornment for hats by recently purchasing a quantity for that purpose. When skilfully blended and artistically arranged in combination with artificial flowers, the fairy sprays of this slender and charming sea-weed are capable of producing exceptionally fine effects. In fact, hats so trimmed form quite a feature of some of the famous West End establishments at the present time, and bid fair to become increasingly popular in the near future. The scope of sea-weed for decorative purposes is, however, by no means confined to millinery. It can be purchased in a variety of shades at a moderate figure from most large drapery establishments, and will be found most useful for table and room decorations generally. Great care must be exercised if it is to be used near candles or other naked lights, as the dressing used to preserve its fluffy appearance sometimes renders it highly inflammable.’

On the Atlantic and Pacific shores of Canada these beautiful and delicate zoophyte fronds are found in abundance and wonderful variety. The utilization of materials so easily gathered and capable of being turned to such ornamental and profitable account, must surely occupy the attention of some enterprising pioneer.

EEL SKIN INDUSTRY.

Of all unlikely products any form of leather from a skin or integument so thin and elastic as the skin of eels would appear the most improbable. Yet for many years, in a quite street near the famous London Bridge, an eel-skin factory has carried on a paying business. There are prepared and manufactured various articles from the integument of the river eel.

The skins are manipulated by numerous complicated processes until they resemble and would easily be taken for leather, although of a more gelatinous and

SESSIONAL PAPER No. 22

pliable nature. This strange commodity is cut into long thin strips and pleated very closely together for whip lashes and to cover portions of the handles of more expensive whips. Certain kinds of lashes and harness laces are also made of eelskin.

The leather is almost indispensable in articles of this description, where flexibility, allied with an uncommon toughness, is desired.

GLUE, ISINGLASS, ETC.

It is strange that with an abundance of raw materials there has never developed in Canada a successful fish glue business. Properly carried on, with sufficient technical knowledge, it is a most profitable industry. Fish skins all contain more or less glue of great value. Great business firms like Messrs. Marcus Ward & Co., in Ireland, use weekly many tons of fish-glue; and the demand is enormous. Cements for crockery &c., like 'seccotine,' are used in every household. Codfish skins, hake, &c., could be got in illimitable quantities, while the sharks and dog-fishes are also a source of glutenous materials. Isinglass is a refined and special form of glue made from the swim-bladder and certain internal membranes, especially of sturgeon, cod, hake, &c. These materials have been wasted, excepting by far-seeing United States buyers, who have bought dried sounds of such fish as the sturgeon and turned them into the valuable commercial product referred to—yielding profits of not less than 10,000 per cent. Other fish yield isinglass, indeed last year the Canadian newspapers announced that at Digby in Nova Scotia certain United States firms were inquiring for the raw 'isinglass' material, stating that:—

'The isinglass factories of Gloucester, Mass., are ordering large quantities of hake sounds from those dealers who make it their business to cure that commodity. Shipments are going forward quite freely via Yarmouth.'

The pickerel or wall-eyed pike, the river cat-fishes, the drum-fish, and certain sea-snappers yield the membrane or air-bladder from which glue and isinglass is extracted by soaking and pressure. As a recent authority rightly observes:—

'Glue manufacture provides an outlet for the profitable use of much waste in dressing dried codfish. This material was formerly discarded as useless, but now tens of thousands dollars' worth of choicest glue for postage stamps, court plaster, adhesive paper, labels, envelopes, for mechanical purposes and for sizing of straw goods and textile fabrics, and likewise office and domestic mucilage are manufactured from fish skins. The product is very much stronger and more durable than glue made from the skins of mammals.

'Isinglass made from the sounds or swimming bladders of sturgeon, hake, cod, squeteague, &c., is used for clarifying fermented liquors, the cellular construction forming a sort of net which carries down floating particles.'

In Japan sea-weeds of the genera *Gelidium* and *Glæopeltis* are used for glue, and for imparting lustre and stiffness to textile fabrics, and glue products of this kind could be prepared in Canada.

SHELL, BUTTON AND PEARL INDUSTRIES.

Many years ago my attention was called by Professor Mavor, of the University of Toronto, to the value of shell, such as the large fresh water clam shells, which abound in the lakes and rivers of Ontario, Manitoba and the west. Many of these shells (*Unio*, *Anadonta*, &c.), are probably too thin usually for profitable utilization, but there are great supplies of suitable shells going to waste, which could be turned to profitable account. The importance of shell products in the United States is apparent from Mr. C. H. Stevenson's statement that 'nearly, if not quite, 1,000,000 tons are secured annually in the United States, consisting principally of the shells of oysters, clams, river mussels and a very much smaller quantity of other varieties. A

fair valuation of these at the places of consumption would doubtless amount to \$1,500,000; to this should be added about \$600,000 as the value of pearls secured during the last year in the Mississippi Valley and elsewhere. The value of the shells secured outside of the United States, principally mother-of-pearl shells, amounts to \$5,000,000 or \$6,000,000 annually, and the pearls secured sell for nearly an equal amount. Pearls are not secured in the seas in such large quantities as formerly, but their value is greatly increased. The manufacture of mother-of-pearl and sweet-water shell in the form of buttons, buckles, knife-handles, pistol stocks, &c., gives employment to nearly 10,000 persons in this country, and to probably three times that number in Europe and elsewhere.

'The shell trade,' said Mr. Simmons thirty years ago, 'is growing year by year into greater importance, and there is ample scope yet for its extension with profit and advantage, alike to the fisherman, the merchant and importer, to the manufacturer and vendor, and to the general public who are purchasers. Leaving out of account the cuttle shell or cuttle fish bone which is obtained from certain species of squid and is used by bird fanciers on account of its calcareous properties, the shells and shell substances found in seas and rivers may be classified as follows:—

- (1) Shells suitable for white and pearl buttons.
- (2) Shells used for ornamenting jewel cases, fancy boxes, and pearly or iridescent in appearance.
- (3) Shells used for knife handles, spoons, lamps, pipes, &c.
- (4) Shells adapted for cameo carving, bracelets and jewellery.
- (5) Shells which can be converted into an enamel for pottery glazing.
- (6) Shells used purely as ornaments when polished or as money amongst primitive tribes.

In Canada our shell resources have been left almost unexploited while certain waters in the United States owing to the demands for their shell products have been almost denuded. One authority of prominence in Iowa has sounded recently a warning note. According to the *New York Fishing Gazette*, February 23, 1907, this authority 'is seeking to get fish commission experts or other qualified experts of the government to make a study of how best to propagate and distribute these mussels or clams. He believes in this way some means can be found to perpetuate the supply and save the industry.

'Census figures show that in 1905 the value of the fresh water pearl button made in the United States was nearly \$5,000,000. Of this amount New York was accredited with \$1,813,167, while Iowa had \$1,500,949. Iowa had fifty-one factories, while New York only had twenty-six.'

The abalone or ear-shell industry is one capable of development, for beds of these beautiful shells occur at known points in British Columbia, and many undiscovered beds doubtless exist. London imports from Japan from 75 to 100 tons of these ear-shells (*Haliotis*), while in California a valuable business has long existed. The following notice of this industry may be quoted, having reference particularly to the fishery on Terminal island, California:—

'When the season is at its height twelve to fifteen tons of abalone are handled each week. They are taken from the shell, the intestines removed, and the muscles boiled for canning and shipped to many points, or dried by steam preparatory to the use of the Japanese, Chinese and other Orientals.

'When the fish are removed the shells are saved. If imperfect, they are stowed away to be ground up for poultry food or for fertilizer. If perfect they are turned over to the California Pearl Manufacturing Company and from them are made some of the most beautiful ornaments that could be imagined.

'Some are polished in their entirety and are sent to the curio and shell stores by the thousand. Many are shaped for brooches, belt pints, cuff buttons, ear-rings, &c., and in their changeable rainbow hues, varying with each angle at which the light strikes them, form most beautiful and attractive novelties. Others are shaped for

SESSIONAL PAPER No. 22

settings for jewellery and large quantities are mounted in sterling silver for jewellers all over the country.

'The process of treatment is very interesting. First, the rough exterior is ground on the carborundum wheels. Next they are polished on the cloth wheel and later shaped for whatever purpose is desired.

'The market for these products is ever widening. They are sold from Maine to Tampa and from coast to coast. It is a beautiful product and seems destined to increasing popularity.'

The mother of pearl material when coarsely pulverized is used for ornamental decoration, especially letters in decorative sign painting.

In fishing shell-fish for the various purposes referred to the fisherman has always before him the possibility of finding pearls or gems of value.* Not only the true mother of pearl shell, such as the *Meleagrina* or so-called pearl oyster of Ceylon; but numerous other shell-fish yield pearls, the Chinese river mussel being well-known in this respect. The fresh water mussels, the sea-oyster, the West Indian strombus, the giant *Tridacna*, and many others produce pearls, while in the streams of Britain, especially Scotland, pearls have long been sought in the river clams or mussels; but our Canadian lakes and rivers abound in shell-fish, which are known to produce these valuable gems. Some of our remote waters have recently acquired fame on this account. The *Chicago Examiner* said, a few months ago:—

'PEARL FISHERY IN CANADIAN WILDS.

'In the mighty streams flowing through Ungava, Canada, a profitable pearl industry is carried on among the Indians and Eskimos, says the *Chicago Examiner*. Barrenness and desolation, rocky shores beaten by an icy sea, long winters and short inclement summers are the chief characteristics of that northern land. Signs of human life are scarce there, but at intervals may be seen rude huts of rocks erected by whale and seal hunters long since departed for more profitable fields. In the rushing waters of the streams, which empty into the sea, pearls are found hidden in the shells of the mussels, which are often so plentiful as to partially block the river. Unlike the pearls of Ceylon, they are snowy white, but nevertheless of the finest quality, although a certain percentage are irregular in shape.

At the present time several hundred men are engaged in systematically hunting for the pearls. They collect the mussels and pile them in heaps, where they are left until decomposed and then the pearls are easily extracted from the shells. Several large jewellery houses send travellers on periodical visits to buy these pearls, and, of course, the Hudson Bay Company's traders get a fair share of the gems.'

It is impossible in this place to deal in detail with such branches of a shell-fish industry as the pearl business, or the utilization of the shells themselves; but it may be pointed out that empty shells have a value in oyster culture. They form the best 'cultch' or rough flour on which oysters can be planted for breeding purposes. Quite good returns are secured from the empty shells, which are useless for buttons or other purposes. Scallop shells are in demand and they bring rarely less than 6 cents per bushel.

PRAWNS, CRAYFISH, ETC.

In the future the utilization of shrimps, prawns, and other crustaceans will no doubt be carried out on an extensive scale. They are abundant on the Atlantic and Pacific coasts, and on the latter coast, our Canadian waters abound in a variety of exceptionally fine edible species. A limited prawn and shrimp fishery is pursued;

* It was announced recently in the press that a pearl obtained in the Micami River, Ohio, sold for \$2,800 this season.

but the development of a canning industry would enable these dainty 'shell-fish' to be sent to markets all over the Dominion. In Florida and in California canned shrimps and prawns form an important article of trade.

The incredibly abundant supplies of lobsters on the Atlantic coast of Canada rendered unimportant the creation of a shrimp or prawn fishery; and they still form an unutilized fishery resource.

In our fresh waters there occur numerous species of small fresh-water lobsters or cray-fish, often erroneously called 'craw-fish,' whereas the 'craw-fish' is a very large crustacean found in the sea and resembling a lobster of unusual size, and of a spiny exterior. Few streams or lakes in Canada do not abound in cray-fish; but there has hitherto been little or no demand for them as a marketable product.

Professor E. A. Andrews recently dealt pretty fully with the crayfish question and the possibility of a future crayfish fishery. He says:—

'The demand should increase, with the growth of cosmopolitan populations that appreciate such food as is used in Europe, with the growth of large populations too remote from the sea coast to obtain fresh sea food, and with the increasing inadequacy of the marine crustacea to supply the needs of even those consumers who dwell near the coast. Thus the lobster industry has been strained till the use of young specimens as food to take the place of the exterminated large ones has become very extensive.

'No doubt in time the demand for crayfish will exceed the natural supply and this industry will tend to run the same retrograde course as that of the lobster, oyster, clam and many more important fisheries till the real value of the crayfish as food warrants legislative control and scientific aid such as alone make possible the continuance of more and more of our once "inexhaustible" food supplies.

'Sooner or later the supply of crayfish will need to be made greater. In addition to legislative restrictions and control, three lines of work suggest themselves as suitable for trial when the supply becomes deficient, or, if one is to profit by experience in other fisheries, now, before the supply becomes deficient—first, the artificial breeding of native species in the market region; second, the introduction and propagation of better species than those naturally occurring, and third, the improvement in size and flavour by culture and cross-breeding.

'Experiments in the laboratory have shown the practicability of rearing crayfish artificially. They grew to a length of four inches in three years, and were of marketable size—three inches—at the end of the second year from the egg. The proportion of crayfish reaching maturity was better than might be expected in such cases, and from proper culture large individuals and large races might be obtained.

'The large western Oregon lobster is of rapid growth and grows under artificial conditions to a length of between two and three inches in five months from eggs hatched in the spring. This large species sells for twice the price of the eastern or the southern varieties, and besides its larger size and weight it has the advantage of a more attractive and lobsterlike appearance, so that its introduction into the east should be most acceptable. In fact, the specimens brought here and kept alive in the laboratory were as long as the six-inch "short lobster" now used as food, and if these crayfish were available in quantity they might be used as a substitute for such young lobsters and thus protect the lobster industry.

'The third method of increasing the available food supply—the origination of larger races—may remain for later stages of the industry, but considering the number of species of crayfish in this and other countries, the chances would seem good for some future production of new forms from crossing and selection.

'Apropos of the matter of introducing the Oregon variety into the east, it is interesting to know that a similar thing is going on in Europe. In Germany, France and Switzerland, where the crayfish has been a standard article of food for hundreds of years, the native varieties have been eaten up, and the governments are now stocking the streams and preserves with the American species.'

SESSIONAL PAPER No. 22

In Canada the supplies of crayfish are so great that the main question is not how to improve them in size or quantity, but how to turn to account the abundant supplies which we possess.

A shrimping or prawn industry involving the use in most countries of a peculiar small meshed bag or net pushed or dragged along the sandy or gravelly shores where these creatures live is a danger to more valuable fish. Great quantities of small fish of the best kinds are wastefully killed. The Japanese used an ingenious trap which is most effective and avoids all danger to other fishes. It is really a bamboo cage. At the entrance is a funnel-shaped piece with its smaller end projecting into the interior, so that any shrimp that has once entered it can not again get out. When being used, dozens of these traps are tied to a long rope, and crushed shell-fish (*Corbicula* or *Paludina*) are put within each; then the whole is sunk to the bottom. They are taken out from time to time and the shrimps are secured.

CRAYFISH GASTROLITHS.

Two peculiar button-like stones are formed in the fore part of the stomach of the crayfish during the late summer, according to M. Chantron, about forty days before the shedding of the shell. In old times these gastroliths, or stomach stones, or 'crab's eyes,' as they were called, were held in great repute as a remedy against various disorders, and in China and Japan almost miraculous properties are still attributed to them. They bring a very high price owing to their alleged curative properties. These limy buttons are not to be confused with the hard teeth of the 'gastric mill' or hind masticatory portion of the stomach, and their purpose appears to be to provide calcareous matter for the new shell. After moulting these stonelike buttons are found in the stomach and in three or four days they are dissolved and absorbed, and it is stated that unless they are thus absorbed the crayfish dies in the moulting process. In a large crayfish the gastroliths may be half an inch in diameter, about one-third of an inch in thickness, and are of a smooth chalky substance, chiefly carbonate of lime, with some lime phosphate, a little soda and a proportion of animal matter. Each of these rounded buttons is attached at the side of the stomach in its anterior part. Were a crayfish fishery developed, the collection of these gastroliths in the late summer would be remunerative, as frequent inquiries are made by Japanese agents for information as to where small quantities can be obtained in Canada.

SKINS OF FISHES, WHALES, ETC.

It is impossible in this report to dwell upon the somewhat complex and varied uses of the skins of fishes and aquatic animals. The skins of the porpoise, beluga or white whale and similar sea creatures, can be converted into the finest kinds of leather. The late Campbell McNab, of Portneuf, exhibited extremely fine samples some years ago of beluga leather, which was fine-grained, flexible, unbreakable and most durable. As Mr. C. H. Stevenson, the eminent specialist upon the subject of the utilization of marine resources, has said:—

'Leather is made from the skins of practically all the aquatic animals, and of most of the species of fish, but these rank among novelty or fancy leathers. Seal leather is produced in large quantities. The hide of the beluga, or white whale, is one of the best of all skins for leather purposes on account of its durability, strength and pliability. It is sold as porpoise leather. Tanned walrus hides, especially the thick ones, are in great demand for polishing wheels and other mechanical purposes. Among the aquatic skins used to a less extent for leather purposes may be mentioned sea lion, porpoise, sea elephant and a very large variety of fish skins, especially those of sharks.

The soft elastic skin of the whale and porpoise tribe, rich in gelatine owing to the abundant connective tissue in it, can be pickled as a delicious food. It is one of

7-8 EDWARD VII., A. 1908

the most prized dainties in Greenland and is pronounced excellent by those who have partaken of it.'

ICE MANUFACTURE.

It may not appear very pertinent in a report on fishery products in Canada, which are not utilized, to make any reference to such an industry as the production of ice. There is, however, an appropriateness in introducing here this matter, not only because those engaged in the fishery business use ice very largely; but they are located, as a rule, where the development of an ice manufacturing industry would be easy and profitable. The abundance of ice along our Canadian shores on the Atlantic invites enterprise on the part of fish firms on a more extensive scale than it has hitherto reached. Large cities in the United States, such as New York, Boston, &c., require an almost unlimited supply. There is no duty on ice, and small shippers might find it profitable to ship cargoes late in the winter before warm weather begins, although if shipped in the usual way the cost of freight is too heavy, viz., \$1.50 per ton to New York. Last year and the year before, New Brunswick and Nova Scotia schooners carried single shipments of 150 or 200 up to 500 tons. There is considerable waste (about 40 per cent) under present conditions of transit; but if the United States demand be favourable, there are substantial returns to small shippers who can freight ice at cheap rates on schooners.

CONCLUSION.

In the foregoing notes, which do not pretend to be more than a rapid survey of salient features of this important question, the waste of valuable fish by-products, the production of oil, and the manufacture of fertilizer or manure has been omitted. Two reasons afford an explanation of this omission, viz.: the extent of these questions which is so great that lengthy reports on each would be necessary, and second, the fact that oil and fertilizer industries are already being carried on, perhaps to a very inadequate extent; but on a sufficient scale to show that the value and importance of these waste products are not being ignored in Canada.

APPENDIX No. I.

FISHING BOUNTIES.

The payments made for this service are under the authority of Act 51-54 Vic., cap. 42, intituled: 'An Act to encourage the development of the sea fisheries and the building of fishing vessels,' which provided for the payment of the sum \$160,000 annually, under regulations to be made from time to time by the Governor General in Council.

REGULATIONS.

The regulations governing the payment of fishing bounties are as established by the following Order in Council, dated December 10, 1897 :—

Order in Council.

AT THE GOVERNMENT HOUSE AT OTTAWA.

FRIDAY, the 10th day of December, 1897.

Present :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency, in virtue of the provisions of 'The Bounty Act, 1891, 54-55 Victoria, chapter 42, and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that the regulations governing the payment of fishing bounties established by order of the Governor in Council, dated the 24th August, 1894, shall be and the same are hereby rescinded, and the following regulations substituted therefor :—

1. Resident Canadian 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 3 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 but 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 13 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, owned and fitted out in Canada, 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 which shall be paid to the owner or owners.

7-8 EDWARD VII., A. 1908

6. The three months during which a vessel must have been engaged in fishing, to be entitled to bounty, shall commence on the day the vessel sails from port on her fishing voyage and end the day she returns to port from said voyage.

7. Owners or masters of vessels intending to fish and claim bounty on their vessel 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.

8. Dates and localities of fishing must be stated in the claim, as well as the quantity and kind of sea-fish caught.

9. Ages of men must be given. Boys under 14 years of age are not eligible as claimants.

10. Claims must be sworn to as true and correct in all their particulars.

11. Claims must be filed on or before November 30 in each year.

12. 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.

13. 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.

14. 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.

15. 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.

16. All vessels fishing under bounty license are required to carry a distinguishing flag, which must be shown at all time, during the fishing voyage at the main top-mast head. The flag must be four feet square in equal parts of red and white, joined diagonally from corner to corner. Any case of neglect to carry out this regulation reported to the Department of Marine and Fisheries will entail the loss of the bounty, unless satisfactory reasons are given for its non-compliance.

JOHN J. McGEE,

Clerk of the Privy Council.

The bounty for the year 1906, was distributed on the basis authorized by the following Order in Council, approved by the Governor General on the 19th January, 1907.

The Governor General in Council is pleased to order and it is hereby ordered that the sum of one hundred and sixty thousand dollars, payable under the provisions of the Act 54-55 Victoria chap. 42, intituled : "An Act to amend chapter 96 of the revised Statutes, intituled : 'An Act to encourage the development of the Sea Fisheries and the building of fishing vessels,' be distributed for the year 1906-1907, upon the following basis :—

Vessels: The owners of the vessels entitled to receive bounty shall be paid one dollar (\$1) per registered ton, provided, however, that the payment of the owner of any one vessel shall not exceed the sum of eighty dollars (\$80), and all vessel fishermen entitled to receive bounty shall be paid the sum of seven dollars and ten cents (\$7.10) each.

Boats: Fishermen engaged in fishing in boats, who shall also have complied with the regulations entitling them to receive bounty, shall be paid the sum of three dollars and seventy-five cents (\$3.75) each, and the owners of fishing boats shall be paid one dollar (\$1) per boat.

JOHN J. McGEE,

Clerk of the Privy Council.

SESSIONAL PAPER No. 22

There were received for the year 1906, 13,533 claims, an increase of 347 as compared with 1905.

The number of claims paid during the year was 13,503, an increase of 362 as compared with the previous year.

There were \$68,208.70 in bounties paid to vessels and their crews, and \$90,807.05 to boats and boat fishermen, making the total payments during the year 1906, \$159,015.75.

The number of vessels which received bounty during the year was 957, the total tonnage being 24,632 tons, an increase of 35 vessels and a decrease of 1,054 tons.

During the year bounty was paid on 12,546 boats and to 20,871 boat fishermen, being an increase of 327 boats and 370 men as compared with 1905.

DETAILED STATEMENT of Fishing Bounty Claims received and paid during the year 1906.

Province.	County.	NUMBER OF CLAIMS.		
		Received.	Rejected.	Paid.
Nova Scotia	Annapolis.....	155		155
	Antigonish.....	138		138
	Cape Breton.....	458	1	457
	Cumberland.....	2		2
	Digby.....	478	7	471
	Guysborough.....	1,001		1,001
	Halifax.....	1,484	3	1,481
	Hants.....			
	Inverness.....	341	1	340
	King's.....	55		55
	Lunenburg.....	1,121	3	1,118
	Pictou.....	15		15
	Queen's.....	204		204
	Richmond.....	713	2	711
	Shelburne.....	677	2	675
	Victoria.....	339		339
	Yarmouth.....	253		253
	Totals.....	7,434	19	7,415
New Brunswick.....	Charlotte.....	455	4	451
	Gloucester.....	398	2	396
	Kent.....	53		53
	Northumberland.....	5		5
	Restigouche.....	1		1
	St. John.....	18	1	17
	Totals.....	930	7	923
Prince Edward Island.....	King's.....	511	2	509
	Prince.....	292		292
	Queen's.....	115		115
	Totals.....	918	2	916
Quebec.....	Bonaventure.....	767		767
	Gaspé.....	2,508	2	2,506
	Rimouski.....	131		131
	Saguenay.....	845		845
	Totals.....	4,251	2	4,249
	Grand totals.....	13,533	30	13,503

7-8 EDWARD VII., A. 1908

DETAILED STATEMENT of Fishing Bounties paid to Vessels in each County during the Year 1906.

Province.	County.	Number of Vessels.	Tonnage.	Average Tonnage.	Number of Men.	Amount paid.
						\$ cts
Nova Scotia.....	Annapolis.....	7	149	21.28	38	418 80
	Antigonish.....	1	17	17...	4	45 40
	Cape Breton.....	15	292	19.46	66	760 60
	Cumberland.....	2	37	18.50	6	79 60
	Digby.....	51	1,366	26.78	371	4,000 10
	Guysborough.....	63	1,053	16.71	297	3,161 70
	Halifax.....	70	1,698	24.25	436	4,793 60
	Hants.....					
	Inverness.....	24	294	12.25	102	1,018 20
	King's.....					
	Lunenburg.....	137	9,694	70.76	2,061	24,327 10
	Pictou.....	1	16	16...	2	30 20
	Queen's.....	7	165	23.57	44	477 40
	Richmond.....	60	1,368	22.86	347	3,831 70
	Shelburne.....	123	2,042	16.60	613	6,394 30
	Victoria.....	7	93	13.28	56	348 60
	Yarmouth.....	76	1,724	22.68	468	5,046 80
	Totals.....	644	20,008	31.07	4,891	54,734 10
New Brunswick.....	Charlotte.....	58	1,012	17.44	220	2,574 00
	Gloucester.....	203	2,514	12.38	801	8,295 10
	Kent.....	1	10	10...	3	31 30
	Northumberland.....	4	50	12.50	13	142 30
	Restigouche.....	1	26	26...	4	54 40
	St. John.....	6	141	23.50	25	318 50
	Totals.....	273	3,753	13.74	1,066	11,325 60
Prince Edward Island.	King's.....	17	448	26.35	66	916 60
	Prince.....	7	142	20.28	32	369 20
	Queen's.....	8	142	17.75	49	489 90
	Totals.....	32	732	22.87	147	1,775 70
Quebec.....	Bonaventure.....					
	Gaspé.....	6	91	15.16	26	275 60
	Rimouski.....					
	Saguenay.....	2	48	24...	7	97 70
	Totals.....	8	139	17.37	33	373 30
	Grand totals....	957	24,632	25.74 ^a	6,137	68,208 70

SESSIONAL PAPER No. 22

DETAILED STATEMENT of Fishing Bounties paid to Boats in each County during the Year 1906, showing also total amount paid to Vessels and Boats for the Year,

Province.	County.	Number of Boats.	Number of Men	Amount paid.	Total Bounty paid to Vessels and Boats in 1906.
				\$ cts.	\$ cts.
Nova Scotia.....	Annapolis	148	231	1,014 25	1,433 05
	Antigonish.....	137	212	932 00	977 40
	Cape Breton.....	442	819	3,513 25	4,273 85
	Cumberland				79 60
	Digby.....	420	733	3,168 75	7,168 85
	Guysborough.....	938	1,478	6,480 50	9,642 20
	Halifax.....	1,411	1,839	8,307 25	13,100 85
	Hants.....				
	Inverness.....	316	564	2,431 00	3,449 20
	King's.....	55	86	377 50	377 50
	Lunenburg.....	981	1,175	5,387 25	29,714 35
	Pictou.....	14	25	107 75	137 95
	Queen's.....	197	299	1,318 25	1,795 65
	Richmond.....	651	1,010	4,438 50	8,270 20
	Shelburne.....	552	887	3,878 25	10,272 55
	Victoria.....	332	514	2,255 70	2,604 30
	Yarmouth.....	177	266	1,174 50	6,221 30
	Totals.....	6,771	10,138	44,784 70	99,518 80
New Brunswick.....	Charlotte	393	576	2,553 00	5,127 00
	Gloucester.....	193	456	1,903 70	10,108 80
	Kent.....	52	86	374 50	405 80
	Northumberland.....	1	2	8 50	150 80
	Restigouche.....				54 40
	St. John.....	11	19	82 25	400 75
	Totals.....	650	1,139	4,921 95	16,247 55
Prince Edward Island.....	King's	492	800	3,491 70	4,408 30
	Prince.....	285	616	2,595 00	2,964 20
	Queen's.....	107	232	977 00	1,466 90
	Totals.....	884	1,648	7,063 70	8,839 40
Quebec.....	Bonaventure.....	767	1,379	5,938 25	5,938 25
	Gaspé.....	2,500	4,912	20,918 20	21,193 80
	Rimouski.....	131	212	926 00	926 00
	Saguenay.....	843	1,443	6,254 25	6,351 95
	Totals.....	4,241	7,946	34,036 70	34,410 00
	Grand totals..	12,546	20,871	90,807 05	159,015 75

GENERAL STATISTICS.

The fishing bounty was first paid in 1882.

The payments were made each year on the following basis :—

1882, vessels \$2 per ton, one half to the owner and the other half to the crew.
Boats at the rate of \$5 per man, one-fifth to the owner and four-fifths to the men.

1883, vessels \$2 per ton, and boats \$2.50 per man, distributed as in 1882.

1884, vessels \$2 per ton, as in 1882 and 1883.

Boats from 14 to 18 feet keel.....	\$1 00
“ 18 to 25 “	1 50
“ 25 feet keel upwards.....	2 00
Boat fishermen.....	3 00

1885, 1886 and 1887, vessels \$2 per ton as in previous years. Boats measuring 13 feet keel having been admitted in 1885, the rates were :—Boats from 13 to 18 feet keel, \$1 ; from 18 to 25 feet keel, \$1.50 ; from 25 feet keel upwards, \$2, and fishermen \$3 each.

1888, vessels \$1.50 per ton, one-half each to owner and crew. Boats, the same as 1885, 1886 and 1887.

1889, 1890 and 1891, vessels \$1.50 per ton as in 1888. Boats \$1 each. Boat fishermen, \$3.

1892, vessels \$3 per ton, one-half each to owner and crew. Boats \$1 each. Boat fishermen \$3.

1893, vessels \$2.90 per ton, paid as formerly. Boats \$1 each. Boat fishermen \$3.

1894, vessels \$2.70 per ton, distributed as in previous years. Boats \$1 each. Boat fishermen \$3.

1895, vessels \$2.60 per ton, half each to owner and crew. Boats \$1 each. Boat fishermen \$3.

1896, vessels \$1 per ton, which was paid to the owners, and vessel fishermen \$5 each, clause No. 5 of the regulation having been amended accordingly. Boats \$1 each, and boat fishermen \$3.50 per man.

1897, vessels \$1 per ton, and vessel fishermen \$6 each. Boats \$1 each, and boat fishermen \$3.50 per man.

1898, vessels \$1 per ton, and vessel fishermen \$6.50 each. Boats \$1 each, and boat fishermen \$3.50 per man.

1899, vessels \$1 per ton, and vessel fishermen \$7 each. Boats \$1 each, and boat fishermen \$3.50 per man.

1900, vessels, \$1 per ton, and vessel fishermen \$6.50 each. Boats \$1 each, and boat fishermen \$3.50 per man.

1901, vessels \$1 per ton, and vessel fishermen \$7 each. Boats \$1 each, and boat fishermen, \$3.50 per man.

1902, vessels \$1 per ton, and vessel fishermen \$7.25 each. Boats \$1 each, and boat fishermen \$3.80 per man.

1903, vessels \$1 per ton, and vessel fishermen \$7.30 each. Boats \$1 each, and boat fishermen \$3.90 per man.

1904, vessels \$1 per ton, and vessel fishermen \$7.15 each. Boats \$1 each, and boat fishermen \$3.75 per man.

1905, vessels \$1 per ton, and vessel fishermen \$7.10 each. Boats \$1 each and boat fishermen \$3.65 per man.

1906, vessels \$1 per ton, and vessel fishermen \$7.10 each. Boats \$1 each and boat fishermen \$3.75 per man.

Since 1882, 20,610 vessels, totalling a tonnage of 709,662 tons, have received the bounty. The total number of vessel fishermen which received bounty is 156,006, being an average of about 7 men per vessel.

The total number of boats to which bounty was paid since 1882 is 336,802, and the number of fishermen 613,026. Average number of men per boat about 2.

The highest bounty paid per head to vessel fishermen was \$21.75 in 1893 ; the lowest 83 cents, while the highest to boat fishermen was \$4, the lowest \$2.

The general average paid per head is \$5.13.

SESSIONAL PAPER No. 22

COMPARATIVE STATEMENT by Provinces for the Years 1882 to 1906, 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	1,257	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
1893...	7,926	7,844	967	881	1,027	1,012	4,059	3,898	13,979	13,635
1894...	8,640	8,600	925	911	983	963	3,948	3,876	14,496	14,350
1895...	8,835	8,825	979	975	1,009	1,025	3,904	3,955	14,727	14,780
1896...	8,597	8,562	1,137	1,064	1,111	1,120	4,366	4,229	15,211	14,975
1897...	8,450	8,418	1,042	991	1,175	1,171	4,180	4,149	14,847	14,729
1898...	8,446	8,347	934	917	1,143	1,145	4,156	4,092	14,679	14,501
1899...	7,894	7,754	849	825	1,016	947	4,134	4,102	13,893	13,628
1900...	7,484	7,452	904	904	1,119	1,169	4,264	4,251	13,771	13,776
1901...	7,346	7,344	829	826	941	937	4,277	4,267	13,393	13,374
1902...	6,710	6,671	802	794	913	912	4,371	4,346	12,796	12,723
1903...	6,297	6,284	832	830	978	974	4,110	4,090	12,217	12,178
1904...	6,750	6,732	879	866	1,027	994	4,095	4,079	12,751	12,671
1905...	7,034	7,018	881	873	921	921	4,350	4,329	13,186	13,141
1906...	7,434	7,415	930	923	918	916	4,251	4,249	13,533	13,503
Totals	197,446	196,043	33,356	31,806	27,223	26,627	104,440	103,038	362,465	357,514

7-3 EDWARD VII., A. 1908

(2) NUMBER of vessels, tonnage and number of men which received Bounty in each year.

YEAR.	NOVA SCOTIA.			NEW BRUNSWICK.			P. E. ISLAND.			QUEBEC.			TOTAL.		
	No. of Vessels.	Tonnage.	No. of Men.	No. of Vessels.	Tonnage.	No. of Men.	No. of Vessels.	Tonnage.	No. of Men.	No. of Vessels.	Tonnage.	No. of Men.	No. of Vessels.	Tonnage.	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	6,238	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	4,935	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
1893....	536	23,195	4,780	210	2,922	634	27	910	151	32	952	179	805	27,979	5,744
1894....	602	24,735	5,077	238	3,189	721	21	594	114	38	1,066	178	899	29,584	6,090
1895....	603	25,018	5,184	238	3,107	764	27	769	129	39	1,262	173	907	30,156	6,250
1896....	553	23,415	4,607	250	3,337	800	23	656	114	36	1,143	144	862	28,551	5,665
1897....	507	21,323	4,829	239	3,079	816	20	490	109	24	833	116	790	25,722	5,870
1898....	505	20,868	4,840	239	3,155	859	24	561	125	16	524	77	784	25,101	5,901
1899....	519	22,538	5,323	238	3,131	885	15	373	76	17	497	78	789	26,531	6,362
1900....	525	22,474	5,352	234	2,969	890	29	737	153	14	459	76	802	26,635	6,471
1901....	508	21,469	5,158	242	3,229	872	23	541	115	13	366	69	786	25,605	6,214
1902..	505	21,248	5,126	249	3,293	972	28	630	135	13	350	51	795	25,521	6,284
1903....	546	21,992	5,173	259	3,454	971	36	765	169	10	290	48	851	26,501	6,361
1904....	552	21,285	5,040	257	3,429	981	30	594	126	15	382	73	854	25,690	6,220
1905....	620	21,240	5,238	264	3,600	1,035	28	587	125	10	259	56	922	25,686	6,454
1906....	644	20,008	4,891	273	3,753	1,066	32	732	147	8	139	33	957	24,632	6,137
Totals..	14,230	593,014	129,643	4,910	70,844	17,742	660	18,987	3,671	810	26,817	4,950	20,610	709,662	156,006

SESSIONAL PAPER No. 22

(3) NUMBER of Boats and boat fishermen which received Bounty in each year.

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	9,402	17,701	33,507
1892	7,679	12,307	893	1,765	1,021	2,047	4,181	7,693	13,774	23,812
1893	7,308	11,748	671	1,314	985	1,962	3,866	7,245	12,830	22,269
1894	7,956	12,899	661	1,281	913	1,813	3,821	7,139	13,351	23,132
1895	8,222	13,106	737	1,434	998	2,141	3,916	7,877	13,873	24,558
1896.	8,008	12,454	814	1,553	1,095	2,126	4,189	7,688	14,106	23,821
1897	7,911	12,542	752	1,351	1,151	2,147	4,125	7,572	13,939	23,612
1898	7,872	12,438	678	1,237	1,121	2,199	4,076	7,627	13,747	23,501
1899.	7,235	11,305	587	1,027	932	1,710	4,085	7,696	12,839	21,738
1900	6,927	10,645	670	1,184	1,140	2,198	4,237	8,004	12,974	22,031
1901	6,836	10,464	584	1,001	914	1,735	4,254	8,017	12,588	21,217
1902	6,166	9,442	545	966	884	1,638	4,333	8,180	11,928	20,226
1903	5,738	8,775	571	964	938	1,722	4,080	7,688	11,327	19,149
1904.	6,180	9,556	609	1,082	964	1,792	4,064	7,648	11,817	20,078
1905	6,398	9,822	609	1,047	893	1,630	4,319	8,002	12,219	20,501
1906.	6,771	10,138	650	1,139	884	1,648	4,241	7,946	12,546	20,871
Totals	181,914	307,260	26,841	56,052	25,876	57,054	102,171	192,660	336,802	613,026

7-8 EDWARD VII., A. 1908

(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	2,103	2,186	7,852	29,064
1893.....	16,528	1,948	2,113	7,424	28,013
1894.....	17,976	2,002	1,927	7,317	29,222
1895.....	18,290	2,198	2,270	8,050	30,808
1896.....	17,061	2,353	2,240	7,832	29,486
1897.....	17,371	2,167	2,256	7,688	29,482
1898.....	17,278	2,096	2,324	7,704	29,402
1899.....	16,628	1,912	1,786	7,774	28,100
1900.....	15,997	2,074	2,351	8,080	28,502
1901.....	15,622	1,873	1,850	8,086	27,431
1902.....	14,568	1,938	1,773	8,231	26,510
1903.....	13,948	1,935	1,891	7,736	25,510
1904.....	14,596	2,063	1,918	7,721	26,298
1905.....	15,060	2,082	1,755	8,058	26,955
1906.....	15,029	2,205	1,795	7,979	27,008
Totals.....	436,903	73,794	60,725	197,610	769,032

SESSIONAL PAPER No. 22

(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	12,395 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
1893 . . .	108,060 67	12,524 09	9,328 62	28,320 72	158,234 10
1894	111,460 03	12,690 80	7,875 79	28,040 18	160,066 80
1895.....	110,765 27	12,919 32	9,285 13	30,598 27	163,567 99
1896.....	98,048 95	13,602 88	9,745 50	32,992 44	154,389 77
1897.....	102,083 50	13,454 50	9,809 00	32,157 00	157,504 00
1898	103,730 00	13,746 00	10,188 00	31,795 00	159,459 00
1899 ..	106,598 50	13,514 50	7,822 00	32,065 00	160,000 00
1900.....	101,448 00	13,562 50	10,589 00	33,203 00	158,802 50
1901.....	101,024 50	13,420 50	8,335 50	33,161 50	155,942 00
1902.....	100,455 70	14,555 80	8,716 55	36,125 45	159,853 50
1903.....	99,714 15	14,872 75	9,652 50	34,704 30	158,943 70
1904.....	99,286 44	15,110 80	9,179 35	33,651 65	157,228 24
1905 ..	100,664 35	15,379 50	8,317 20	34,185 60	158,546 65
1906	99,518 80	16,247 55	8,839 40	34,410 00	159,015 75
Totals.....	2,518,680 33	380,762 77	232,560 57	797,697 60	3,949,701 27

7-8 EDWARD VII., A. 1908

LIST of Vessels which received Fishing Bounty during the Year 1906.

PROVINCE OF NOVA SCOTIA.

ANNAPOLIS 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.
80093	Anna K.	St. John.	14	Edward Fales.	Margaretville. . .	1	21 10
90655	Annina.	Yarmouth. . .	12	E. Robinson.	Parker's Cove. . .	7	61 70
103066	Eddie J.	"	23	Jas. W. Snow.	Port Wade.	3	44 30
111998	Jessie K.	Annapolis.	11	Thos. Milner.	Parker's Cove. . .	5	46 50
85534	Lloyd.	Yarmouth.	31	W. H. Anderson.	"	9	94 90
100539	Rowena.	Digby.	10	Jno. F. Peters.	Litchfield.	3	31 30
107293	S. C. H.	Annapolis.	48	Wm. McGrath.	Port Wade.	10	119 00

ANTIGONISH COUNTY.

103542	Emma Brow.	Halifax.	17	Jno. Brow.	Hbr. au Bouche. .	4	45 40
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CAPE BRETON COUNTY.

112376	Agnes.	Arichat.	15	Pat'k Wadden.	Scatarie Isld. . .	4	43 40
100846	Albatross.	Lunenburg. . .	26	Jno. Arsenault.	L. Bras d'or.	7	75 70
100389	Annie F.	Sydney.	13	John Farrell.	Mainadien.	4	41 40
100372	Betsy Jane.	"	11	Samuel Moore.	L. Bras d'or.	4	39 40
90834	Diego.	Port Medway. .	27	Thos. Peach.	Port Morien.	7	76 70
116521	Ellwood.	Lunenburg.	16	R. D. Nutter.	B. Glace Bay. . .	4	44 40
100383	Florence F.	Sydney.	10	S. Curry.	Port Morien.	7	59 70
94788	Laura C. Zwicker. .	Lunenburg.	85	Jno. Arsenault.	L. Bras d'or.	4	108 40
103412	Minnie B.	"	25	W. T. Eastman.	North Sydney. . .	4	53 40
107375	Minnie B.	"	10	G. Billard.	Louisburg.	3	31 30
107376	Rozzie.	Sydney.	17	Robt. Fudge.	North Sydney. . .	4	45 40
112386	Shamrock.	"	11	Jacob Rogers.	"	3	32 30
111902	St. Thomas.	Arichat.	10	Alex. Ley.	L. Lorraine.	3	31 30
107359	Victoria.	Sydney.	11	Benj. Boone.	Bateston.	5	46 50
107351	Wilfrid Laurier. . .	"	10	Philip May.	North Sydney. . .	3	31 30

CUMBERLAND COUNTY.

111425	Effie Howard.	Halifax.	23	E. R. Heather.	Pugwash.	5	58 50
103593	Jessie & Ada.	Charlottetown. .	14	Geo. Heather.	"	1	21 10

DIGBY COUNTY.

112286	A. E. Moore.	Digby.	11	A. R. Bailey.	Westport.	4	39 40
111528	Alart.	"	11	Ben Doucett.	Mavilette.	3	32 30
116235	Alcyone.	"	52	Howard Anderson. .	Digby.	5	87 50
107807	America.	St. John.	16	Reuben Thurber. . .	Freeport.	5	51 50
112102	Ariadne.	"	48	H. Outhouse.	Tiverton.	13	140 30
100547	B. and C.	Digby.	14	Jno. W. Thurber Sr. .	Freeport.	4	42 40
100813	Blanche.	Barrington. . .	24	Wesley Leeman.	Tiverton.	5	59 50
111898	Catherine.	Weymouth.	11	A. Belliveau.	Grosses Coques. .	5	46 50
74331	Condor.	Yarmouth.	11	Howard Titus.	Westport.	4	39 40
116236	Cora May.	Digby.	64	J. W. Moran.	Freeport.	18	191 80
103181	Curlew.	"	63	Geo. Denton.	Westport.	17	183 70
107112	Daisy Linden.	"	97	David Spronle.	Digby.	14	179 40
116239	Edna L.	"	11	K. H. A. Lewis.	Rossway.	3	32 30

SESSIONAL PAPER No. 22

LIST OF Vessels which received Fishing Bounty, &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.
							8 cts.
103749	Emerald.....	Digby.....	29	Ansel Casey.....	Digby.....	12	114 20
116446	Emerson Faye.....	Shelburne.....	47	M. Hains.....	Freeport.....	14	146 40
121657	Emily C.....	Yarmouth.....	11	N. Comeau.....	Bear Cove.....	4	39 40
107604	Emma D.....	Weymouth.....	20	F. S. Doucette.....	Mavillette.....	4	48 40
111527	Etta H.....	Digby.....	10	Jas. Buckman.....	Westport.....	3	31 30
85476	Fleetwing.....	Shelburne.....	15	Handley Outhouse.....	Tiverton.....	4	43 40
122097	George L.....	Yarmouth.....	13	John J. LeBlanc.....	Mavillette.....	5	48 50
107480	Hattie & Eva.....	Digby.....	11	Edwin Hains.....	Freeport.....	4	39 40
111638	Hazlewood.....	Shelburne.....	29	Geo. C. Stevens.....	".....	10	100 00
111530	Island Girl.....	Digby.....	10	Esrom Thurber.....	".....	3	31 30
116234	J. W.....	".....	14	Whale Cove Trading Co.	Whale Cove.....	7	63 70
111525	James W. Cousins..	".....	87	Jos. Milberry.....	Digby.....	22	236 20
111838	Lavina D.....	".....	21	James Doucette.....	Mavillette.....	7	70 70
75851	Little Annie.....	Weymouth.....	16	P. H. Belliveau.....	Belliveau's Cove.	2	30 20
122101	Lizzie B.....	Yarmouth.....	18	L. Boudreau.....	Mavillette.....	6	60 60
116210	Lucy A.....	".....	32	John T. Therrio.....	Meteghan.....	6	74 60
116237	Maple Leaf.....	Digby.....	10	H. P. Denton.....	Westport.....	3	31 30
103184	May Flower.....	".....	26	John W. Snow.....	Digby.....	7	75 70
111896	May Queen.....	Weymouth.....	15	Moses Thibodeau.....	Church Point.....	5	50 50
85533	Minnie C.....	Digby.....	12	George R. Raymond.....	Digby.....	2	26 20
116232	Nettie M.....	".....	12	Wm. McDormand.....	Westport.....	4	40 40
100595	New Home.....	Weymouth.....	31	Arthur Doucette.....	Mavillette.....	4	59 40
94830	Nina Blanche.....	".....	31	J. W. Moran.....	Freeport.....	10	102 00
116660	Nora.....	Yarmouth.....	11	Philemon Doucett.....	Mavillette.....	5	46 50
112855	Ospray.....	Digby.....	16	F. H. Corning.....	Beaver Harbour.	4	44 40
111834	Rosan.....	".....	11	F. J. Doucett.....	Mavillette.....	3	32 30
111835	Roxana.....	".....	11	Ainsley Titus.....	Westport.....	2	25 20
107334	Shamrock.....	Yarmouth.....	17	R. Thurber.....	Freeport.....	5	52 50
112289	Souvenir.....	Digby.....	27	J. O. Robichaud.....	Meteghan.....	5	62 50
111840	Sparrow.....	".....	28	M. Theriault.....	".....	5	63 50
111833	Sunlocks.....	".....	59	J. Robbins.....	Tiverton.....	14	158 40
100609	Swan.....	Shelburne.....	56	Edwin Hains.....	Freeport.....	14	155 40
103179	Trilby.....	Digby.....	31	L. E. Perry.....	".....	9	94 90
94694	Utah & Eunice.....	".....	33	Milton Hains.....	".....	9	96 90
80630	Vanity.....	Yarmouth.....	11	F. P. Titus.....	Westport.....	3	32 30
100543	W. Parnell O'Hara.	Digby.....	79	Joseph E. Snow, <i>et al.</i>	Digby.....	16	192 60
77969	Wave Queen.....	St. Andrews.....	11	Thomas Denton.....	Little River.....	2	25 20
121812	Wiffred L. Snow...	Digby.....	36	Edward Keans.....	Digby.....	9	99 90

GUYSBORO' COUNTY.

107992	Alice J. Davis.....	Canso.....	20	Edward Hearn.....	Canso.....	4	48 40
111422	Annie B.....	Halifax.....	26	Ben. Boudro.....	Port Felix.....	5	61 50
112021	Annie M.....	Canso.....	29	John Leary.....	Queensport.....	5	64 50
90495	Annie S.....	Halifax.....	34	David Boudro.....	Port Felix.....	10	105 00
112016	Blanche.....	Canso.....	13	S. Williams.....	Canso.....	4	41 40
112020	Bonny Kate.....	".....	14	R. Sutherland.....	".....	3	35 30
112375	C. G. Munro.....	Arichat.....	14	Chas. Mosher.....	".....	4	42 40
103328	Ella May.....	Pt Hawkesbury.	34	Hibbert Carr.....	Mulgrave.....	4	62 40
117054	Emma Jane.....	Canso.....	16	John L. George.....	Up. White Head.	6	58 60
116347	Ethel.....	Arichat.....	11	Jas R. Sinclair.....	Canso.....	2	25 20
116890	Ethel G.....	".....	12	Daniel George.....	White Head.....	5	47 50
116832	Fiona.....	".....	10	Martin Pelrine.....	Larry's River.....	5	45 60
117093	Florence D.....	".....	11	Hubert Dorion.....	Port Felix.....	6	53 60
107993	Florence May.....	Canso.....	11	John Kennedy.....	Canso.....	6	53 60
112373	Flying Cloud.....	Arichat.....	13	Simon Manett.....	Larry's River.....	4	41 40
100818	Geneva Ethel.....	Barrington.....	29	Martin Mcagher.....	Canso.....	5	64 50
116883	Grayling.....	Arichat.....	25	W. H. Reeves.....	Middle Melford.	4	53 40
107996	Green Linnet.....	Canso.....	12	Thomas Boudrot, jr.	Dover.....	4	40 40

LIST of Vessels which received Fishing Bounty, &c.—Nova Scotia—*Con.*GUYSBORO' 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.
117091	Hazel Maud. . . .	Arichat.	10	James Rhynold	Dover	4	38 40
116740	Hilda M. Horton. . .	Halifax.	29	E. F. C. Horton	Port Beckerton. . .	5	64 50
103470	Ida M. Burk.	Arichat.	16	Jos. Fougere.	Larry's River. . . .	4	44 40
112374	J. B. Saint.	"	18	Robt. Hendsbee	Half Isl'd Cove. . .	6	60 60
111903	Laura B. G.	"	10	Benj. Gerrior.	Charlo's Cove. . . .	3	31 30
111910	Lizzie J. Greenleaf. .	"	11	Jos. H. Richard	"	6	53 60
117097	Lizzie May.	"	12	Benj. L. Pelrine	Larry's River. . . .	5	47 50
117098	Lottie M. Beatrice. .	"	17	Hiram Hendsbee, sr. . .	Half Isl'd Cove. . .	4	45 40
117100	Louisa Ellen.	"	11	Patrick Conway	White Head.	4	39 40
117094	Maggie Alice.	"	11	John D. Cashin.	Port Felix	3	32 30
112018	Maggie Bell.	Canso.	26	James W. Grady.	St. Francis Hbr. . .	8	82 80
112136	Maple Leaf.	Shelburne	48	Jno. Cousins	Canso	10	119 00
111909	Margaret May.	Arichat.	12	Jas. Sullivan.	"	5	47 50
112371	Mary A.	"	11	Daniel Casey.	Raspberry.	3	32 30
116886	Mary J.	"	11	Wm. Diggon.	White Head.	3	32 30
117053	Mary M. Bell.	Canso.	10	Jno. Bellfountain. . . .	Port Felix.	4	38 40
111475	Mary Matilda.	Arichat.	15	Fredk. Pelrine.	Larry's River. . . .	6	57 60
100816	Mattie Morrissey. . .	Canso.	24	Benj. David.	Port Felix.	6	66 60
107999	Maud S.	"	12	Havelock Munroe. . . .	Canso	3	33 30
107757	Mayflower.	Charlottetown	18	J. R. Lumsden	"	4	46 40
112022	Minnie J.	Canso.	14	Jas. Feltmate	Yankie Cove.	5	49 50
100446	Minnie May.	"	12	Chas. H. Richard	Charlo's Cove. . . .	6	54 60
100450	Minto.	"	18	William O'Hara.	Canso	2	32 20
107998	Money Bush.	"	15	Thos. Richard.	Port Felix	6	57 60
103547	Morning Glory.	Halifax	11	Jno. J. Gerrior	Larry's River. . . .	3	32 30
117051	Muriel G.	Canso.	21	Alden Munroe.	L. Whitehead. . . .	3	42 30
80970	Orion.	Halifax.	24	Jos. Pelrine, Sr.	Larry's River. . . .	6	66 60
112024	Reta S.	Canso.	13	Wm. Shrader.	Canso	6	55 60
112372	River Swan.	Arichat.	11	Geo. Berrigan.	"	4	39 40
74139	Sadie.	Halifax.	44	Isaiah Fougere	Larry's River. . . .	6	86 60
100255	Seaflee.	"	12	Howard Munroe	White Head.	4	40 40
111413	Sigdrifa.	Lunenburg	13	Wm. Dort.	Cole Harbour. . . .	5	48 50
112023	Silver Bell.	Canso.	14	S. J. Pelrine.	Larry's River. . . .	3	35 30
116884	Silver Swan.	Arichat.	20	Joseph Bonvie.	"	4	48 40
112025	Squanto.	Canso.	13	F. H. Hawes.	Canso.	5	48 50
96962	Sunrise.	Yarmouth.	18	Thurlo Munroe.	L. White Head. . .	3	39 30
103461	St. Lidwina.	Arichat.	11	Abner J. Munroe.	Cole Harbour. . . .	5	46 50
108000	St. Patrick.	Canso.	18	Geo. L. Avery.	Larry's River. . . .	6	60 60
107318	St. Stephen.	Halifax	19	Moses Cohoon.	Canso.	6	61 60
116885	T. Lilly.	Arichat.	10	Wm. Peart.	Tor Bay	3	31 30
117052	Thrnsh.	Canso.	10	David Myers.	Canso	2	24 20
103199	Trilby.	"	12	E. Flaherty	"	5	47 50
107994	True Love.	"	10	David Walsh.	"	2	24 20
107991	Two Brothers.	"	14	Fredk. Gello.	Port Felix.	6	56 60
116887	Wenona.	Arichat.	10	Jno. Uloth.	Cole Harbour. . . .	5	45 50

HALIFAX COUNTY.

94632	A. C. Greenwood. . .	Shelburne	15	Ernest Mason	Tangier.	5	50 50
121932	Addie M.	Halifax	11	Isaac Morash.	West Dover	3	32 30
116526	Adelaide.	Lunenburg	13	James F. Gray	Pennant.	4	41 40
107313	Alice A.	Halifax	16	Wm. McPherson.	Tangier.	4	44 40
121933	Annie May.	"	24	H. Gerrard, et al. . . .	Gerrard's Isl'd. . .	5	59 50
103858	B. & B. Holland. . .	"	26	R. Holland.	Duncan's Cove. . .	8	82 80
116278	Christie Belle.	"	13	Zachariah Beaver. . . .	Spry Bay	2	27 20
117145	Dove.	"	10	Geo. Myria.	Petpiewick Hbr . .	3	31 30
111428	Duchess.	"	12	David Morash.	West Dover	2	26 20
77603	Eldon C.	"	27	Isaac Bowser.	Musquodoboit Hbr.	8	83 80

SESSIONAL PAPER No. 22

List of Vessels which received Fishing Bounty, &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.
111434	Ermynthrude.....	Halifax	36	Fred. J. Darrach.....	Herring Cove...	10	107 00
117141	Etha May	"	11	Geo. Johnson.....	West Dover	3	32 30
100247	Fairy Queen.....	"	11	Geo. H. Nickerson ..	Pennant	3	32 50
116290	Flora M. J.....	"	78	John Julien, et al....	W. Chezzetcook ..	18	205 80
80829	Florence B.....	"	32	Jas. S. Richardson ..	West Jeddore....	7	81 70
100259	Florence G.....	"	15	Caleb Gray.....	Sambro	4	43 40
111432	Gladys Elena.....	"	16	Chas. W. Twohig.....	Pennant	3	37 30
107319	Globe.....	"	32	Chas. W. Hart.....	Sambro	12	117 20
103544	Grace D.....	"	10	Geo. Slaunwhite.....	Terrence Bay...	5	45 50
112131	Grace D. Day	Shelburne	39	Ainsley Hubley.....	Boutillier's Cove.	11	117 10
111747	Grace Darling	Lunenburg	100	O. Dauphinee.....	"	16	193 60
116731	Grand Desert.....	Halifax	65	Martin Julien, et al..	W. Chezzetcook..	18	192 80
116738	Gretta	"	14	Alton Russell, et al..	Clam Hbr.....	3	35 30
116287	Handy Andy.....	"	15	Wm. Westhaver, et al.	Sober Isld.....	4	43 40
112129	Hattie	Lunenburg	12	Arthur Jollymore.....	Indian Hbr.....	3	33 30
116743	Hattie D.....	Halifax	62	Richard Drew.....	Terrence Bay....	10	133 00
116284	Janet R.....	Halifax	37	John D. Verge.....	Sober Island.....	6	79 60
121934	Jeannie & Annie..	"	16	Robt. J. Mason.....	Tangier	5	51 50
103191	Jennie B.....	Liverpool	13	H. Wambolt.....	Indian Hbr.....	4	41 40
116747	Jessie W.....	Halifax	12	Henry Weinaut.....	Boutillier's Cove.	3	33 30
100216	Katie M.....	"	11	Chas. Nelson.....	Halifax.....	3	32 30
103312	Laura.....	Pt. Hawkesbury ..	13	Reuben Cooper.....	Tangier	3	34 30
96797	Laura Phoebe.....	Halifax	18	Arthur Day	West Jeddore....	6	60 60
116203	Laurel.....	"	16	Geo. Pelham.....	Herring Cove....	8	72 80
116513	Laurie H.....	Lunenburg	16	J. Slaunwhite.....	Terrence Bay....	5	51 50
83402	Louisa Maud.....	Halifax.....	21	Harry Graves.....	East Dover.....	5	56 50
111440	M. A. Josey	"	17	Leander Josey et al..	Spry Bay.....	4	45 40
111424	Maggie M.....	"	13	Jas. Marryatt	Sambro	3	34 30
96805	Maggie May.....	"	62	Jer. Fillis et al.....	W. Chezzetcook ..	17	182 70
116733	Maggie May.....	"	17	F. J. Flemming.....	Ketch Hbr.....	7	66 70
111435	Maggie Wilson ..	"	36	E. Dempsey, sr.....	Herring Cove....	11	114 10
111421	Maple Leaf.....	"	25	Eli Baker.....	East Jeddore....	6	67 60
117150	Marie Stella.....	"	36	Simon Lapierre.....	W. Chezzetcook ..	7	85 70
112387	Mary A. Dunphy..	Sydney.....	18	Harry Gibbs.....	Halifax.....	6	60 60
85664	Mary E.....	Halifax.....	14	Warden Covey.....	Indian Hbr.....	4	42 40
117144	Mary E. Faulkner.	"	14	John Faulkner.....	West Jeddore....	4	42 40
100227	May.....	"	10	M. Slaunwhite.....	Terrence Bay....	4	38 40
116736	Milo.....	"	23	Jas. W. Gorman	Herring Cove....	5	58 50
116739	Minnie M. Dora...	"	14	John Beaver.....	Spry Bay.....	3	35 30
116282	Monica A. Thomas.	"	46	Chas. H. Thomas.....	Herring Cove....	11	124 10
85665	Nellie D.....	"	12	Wm. Munro.....	Sober Island....	3	33 30
103539	Neva.....	"	11	E. Marryatt.....	Pennant.....	2	25 20
116745	Perseverance.....	"	12	E. F. Shatford.....	Indian Hbr.....	3	33 30
94677	Progress.....	"	14	David Richardson...	De Bay's Cove...	5	49 50
83133	Regina B.....	"	79	M. Williams.....	Musquodoboit Hbr.....	10	150 00
116749	Reliance.....	"	14	Wm. Hubley.....	Indian Hbr.....	3	35 30
96806	Rising Sun.....	"	28	R. Christian.....	Prospect.....	6	70 60
116272	Rosie M. B.....	"	75	Fred Bonaing et al....	W. Chezzetcook ..	13	167 30
116447	San Juan.....	Shelburne	42	Geo. L. Baker.....	W. Jeddore....	6	84 60
100218	Sarah M. W.....	Halifax.....	14	E. Wheatley.....	Terrence Bay....	7	63 70
112137	Shamrock.....	Shelburne	37	Edward Hayes.....	Herring Cove....	11	115 10
116750	Stella R.....	Halifax.....	13	Wm. E. Murphy	E. Ship Hbr.....	4	41 40
103464	St. Patrick.....	Arichat.....	27	Harris Corkum.....	East Jeddore....	5	62 50
111438	Theresa M. Gray ..	Halifax.....	30	Angus Gray	Pennant.....	9	93 90
117142	Valkyria.....	"	13	Harvey Covey.....	Indian Hbr.....	4	41 40
117143	Valmore.....	"	11	N. Richardson	"	4	39 40
100260	Violet.....	"	12	Jas. H. Smith.....	Sambro.....	3	33 30
116283	Vixen.....	"	13	Henry McKenzie.....	Gerrard's Isld....	4	41 40
92578	Willettta.....	"	12	Joseph Gray	Sambro.....	6	54 60
85378	Zephyr.....	"	16	Robt. Slaunwhite.....	Terrence Bay....	7	65 70

7-8 EDWARD VII., A. 1908

List of Vessels which received Fishing Bounty, &c.—Nova Scotia.—*Con.*

INVERNESS 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.
96778	Campania.....	Pt. Hawkesbury	11	C. Robin, Collas Co...	Eastern Hbr...	4	39 40
103313	Catherine.....	"	10	"	"	4	38 40
103325	Elizabeth Ann.....	"	11	David Bourgeois.....	"	5	46 50
83196	Ethel Blanche.....	Pictou.....	17	Wm. J. Malcolm.....	Pt. Hawkesbury	2	31 20
96774	Florence.....	Pt. Hawkesbury	11	S. Bellefontaine.....	Eastern Hbr...	5	46 50
103317	Flying Star.....	"	11	"	"	5	46 50
111795	Katie J.....	"	11	Jno. McNeil.....	Pt. Hawkesbury	3	32 30
103316	Laura.....	"	10	U. Bourgeois.....	Eastern Hbr...	4	38 40
103318	Lillie.....	"	12	Peter Fiset.....	"	4	40 40
96775	Louise.....	"	11	S. Bellefontaine et al..	"	4	39 40
103330	Lucy.....	"	11	Theophile Maillet.....	Little River...	4	39 40
96779	Majestic.....	"	12	C. Robin, Collas Co...	Eastern Hbr...	5	47 50
96771	Marie.....	"	10	Jno. Roach.....	"	4	38 40
96777	Marie Joseph.....	"	11	Jno. F. Poirier.....	Little River...	5	46 50
103314	Mary.....	"	10	Peter Fiset.....	Eastern Hbr...	4	38 40
96769	Mary Lambert.....	"	19	Chas. L. Chiasson.....	Little River...	3	40 30
69125	Maryflower.....	Halifax.....	20	H. Chiasson.....	"	5	55 50
103326	Mizpah.....	Pt. Hawkesbury	10	Thos. Le Brun.....	Grand Etang...	5	45 50
111792	Saint Aubin.....	"	15	C. Robin, Collas Co...	Eastern Hbr...	4	43 40
103329	Saint Helier.....	"	12	"	"	4	40 40
100448	Surprise.....	Canso.....	15	Daniel McDonnell.....	Judique.....	4	43 40
96773	Virgin.....	Pt. Hawkesbury	10	Michel Ranard.....	Little River...	4	38 40
111793	Walla Walla.....	"	11	S. Bellefontaine.....	Eastern Hbr...	4	39 40
96776	Willie B.....	"	21	"	"	6	63 60

LUNENBURG COUNTY.

111837	A. L. B.....	Lunenburg.....	22	Brenton Cleveland....	Lunenburg.....	5	57 50
112126	Acadia.....	"	91	Alex. Knickle.....	"	17	200 70
116517	Acme.....	"	91	Wm. C. Smith.....	"	17	200 70
111641	Aguadilla.....	"	100	F. Anderson.....	"	17	200 70
107953	Ahava.....	"	85	W. C. Smith.....	"	16	193 60
107657	Alcaea.....	"	99	Alex. Knickle.....	"	18	207 80
112115	Aldine.....	"	99	A. V. Conrad.....	Park's Creek....	17	200 70
112107	Alexandra.....	"	93	F. Anderson.....	Lunenburg.....	17	200 70
111647	Alhambra.....	"	99	Wm. Gilfoy.....	"	18	207 80
112105	Alma Nelson.....	"	99	Christian Geldert.....	"	20	222 00
112101	Ambition.....	"	100	A. Himmelman.....	Rose Bay.....	19	214 90
116522	Anita.....	"	16	S. E. Winters.....	"	5	51 50
111750	Arabia.....	"	80	David Heisler.....	Lunenburg.....	17	200 70
116499	Arkansas.....	"	111	Jno. B. Young.....	"	17	200 70
112122	Atalaya.....	"	79	W. C. Smith.....	"	15	185 50
121870	Atlantic.....	"	81	Atlantic Fish Co.....	"	17	200 70
116498	Beatrice S. Mack..	"	99	W. C. Smith.....	"	17	200 70
111734	Blake.....	"	99	J. N. Rafuse.....	Conquerall Bank	20	222 00
111732	Calavera.....	"	90	Henry Moscr.....	Lunenburg.....	17	200 70
112128	Campania.....	"	99	Thos. Romkey.....	Riverport.....	18	207 80
112116	Cardinia.....	"	100	F. Anderson.....	Lunenburg.....	17	200 70
116505	Cavalier.....	"	70	W. N. Reinhardt.....	La Have.....	16	183 60
121999	Cavalier.....	"	13	Leroy Boliver.....	Broad Cove.....	4	41 40
107122	Collector.....	"	99	W. N. Reinhardt.....	La Have.....	17	200 70
111702	Colonia.....	"	98	A. H. Zwicker.....	Lunenburg.....	18	207 80
103759	Columbia.....	"	99	"	"	18	207 80
111743	Corean.....	"	70	J. N. Rafuse.....	Conquerall Bank	11	148 10
111736	Coronation.....	"	98	H. W. Adams.....	Lunenburg.....	18	207 80
111708	Crofton McLeod...	"	85	Jno. W. McLean.....	Mahone Bay.....	15	186 50
111637	Cyril.....	"	100	Thos. A. Wilson.....	Bridgewater.....	21	229 10
111405	Deeta M.....	"	81	Jno. McLean.....	Mahone Bay.....	12	165 20
111711	Defender.....	"	98	Alex. Knickle.....	Lunenburg.....	17	200 70

SESSIONAL PAPER No. 22

List of Vessels which received Fishing Bounty, &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.
111710	Demering.....	Lunenburg.....	85	Jessen Anderson....	Lunenburg..	17	200 70
116540	Douglas Adams...	"	99	H. W. Adams.....	"	18	207 80
116506	E. M. Zellars.....	"	84	Henry Moser.....	"	19	214 90
111730	Earle V. S.....	"	100	Howard Whynacht..	"	17	200 70
121866	Eldora.....	"	79	Amiel Corkum.....	E. M. La Have.	17	199 70
112099	Electro.....	"	88	E. B. Walters.....	La Have.....	20	222 00
83308	Ella.....	Liverpool.....	10	J. C. Hanson.....	Mahone Bay...	1	17 10
121994	Ella Mason.....	Lunenburg.....	74	Isaac Mason.....	Lunenburg..	19	208 90
107127	Ellen L. Maxner..	"	93	Lewis A. Hirtle....	"	16	193 60
121992	Emma H.....	"	71	Abraham Ernst....	Mahone Bay...	5	106 50
112087	Ethel.....	"	99	W. N. Reinhardt...	La Have.....	19	214 90
116518	Eva June.....	"	93	W. C. Smith.....	Lunenburg..	17	200 70
116520	Evelyn.....	"	18	Albert Meisner....	"	3	39 30
103743	Flo F. Mader.....	"	100	C. U. Mader.....	Mahone Bay...	17	200 70
116531	Florence B. W....	"	24	Simon Westaver...	Fox Point.....	5	59 50
111401	Frances Willard..	"	97	Jas. A. Hirtle....	Lunenburg..	14	179 40
111746	Fredonia.....	"	92	C. U. Mader.....	Mahone Bay...	12	165 20
107289	G. S. Troop.....	"	99	L. B. Currie.....	West Dublin...	17	200 70
116525	Gatherer.....	"	15	W. C. Smith.....	Lunenburg..	4	43 40
121851	Gladys B. Smith..	"	100	"	"	20	222 00
121867	Gladys F.....	"	72	J. N. Rafuse.....	Conquerall Bank	18	199 80
111742	Glenwood.....	"	99	David Heisler.....	Lunenburg..	18	207 80
103752	Glyndon.....	"	99	James Romkey....	L. La Have.....	17	200 70
116527	Guide.....	"	73	W. N. Reinhardt..	La Have.....	16	186 60
121111	Havana.....	"	100	A. V. Conrad.....	Park's Creek...	17	200 70
121863	Hazel.....	"	71	J. Publicover.....	Getson's Cove..	16	184 60
116442	Helen C. Morse...	"	98	Jno. Westhaver...	Lunenburg..	18	207 80
121857	Hiawatha.....	"	99	W. C. Smith.....	"	18	207 80
121993	Hilda M. Backman.	"	81	Wilket Conrad....	Rose Bay.....	17	200 70
121109	Hispaniola.....	"	91	Adam Knickle.....	Lunenburg..	18	207 80
103174	Iona.....	Shelburne	15	Norman Chandler..	Chester.....	1	22 10
107956	Iona.....	Lunenburg	98	Stephen Oxner.....	Riverport....	17	200 70
112089	Iona W.....	"	78	Abraham Ernst....	Mahone Bay...	14	177 40
107116	Ivy.....	"	12	Daniel Wentzel...	Pleasantville..	1	19 10
107960	J. W. Mills.....	"	76	J. W. Mills.....	Mahone Bay...	13	168 30
121858	J. A. McLean.....	"	80	Aubrey Anderson...	Lunenburg..	14	179 40
116511	J. F. Norton.....	"	61	A. V. Conrad.....	Park's Creek...	13	153 30
111726	Juanita.....	"	100	W. C. Smith.....	Lunenburg..	17	200 70
116509	Kasaga.....	"	59	James Bell.....	Dublin Shore...	14	158 40
111404	Kimberley.....	"	92	C. U. Mader.....	Mahone Bay...	10	151 00
111635	Latooka.....	"	99	A. V. Conrad.....	Park's Creek...	17	200 70
107126	Lena F. Oxner....	"	99	James Geldert....	Lunenburg..	18	207 80
107660	Lila D. Young....	"	100	Jno. B. Young.....	"	17	200 70
107129	Lilla B. Hirtle...	"	99	Aubrey Anderson...	"	17	200 70
103760	Lillian.....	"	84	A. R. Morash.....	"	17	200 70
111634	Loyal.....	"	99	Abraham Ernst....	Mahone Bay...	17	200 70
111735	Lucania.....	"	99	Jno. Creaser.....	Riverport....	18	207 80
107120	Madeira.....	"	99	T. Creaser.....	"	18	207 80
112112	Maimie Dell.....	"	98	C. U. Mader.....	Mahone Bay...	17	200 70
116523	Mankato.....	"	76	Stannage Walters..	La Have.....	17	196 70
116538	Maple Leaf.....	"	26	J. M. Rhodenizer..	Lunenburg..	6	68 60
116519	Margaret E. Schwartz.....	"	98	Jno. Schwartz.....	"	18	207 80
121862	Marina.....	"	78	Wm. Schmeisser...	E. M. La Have.	17	198 70
111709	Mariner.....	"	100	B. J. Gaul.....	Getson's Point..	17	200 70
121119	Mary E. Smith....	"	99	W. C. Smith.....	Lunenburg..	17	200 70
121859	Mary W. S.....	"	74	A. V. Conrad.....	Park's Creek...	12	159 20
121854	Mattawa.....	"	96	A. H. Zwicker.....	Lunenburg..	18	207 80
107967	May Myree.....	"	89	Elias Richard, sr...	Getson's Cove..	21	229 10
121861	Medina A.....	"	74	Amiel Corkum.....	La Have.....	16	187 60
121200	Metor.....	"	99	T. Creaser.....	Riverport....	17	200 70
121864	Mildred M. Bell..	"	54	Wm. Richard.....	Getson's Cove..	16	167 60

7-8 EDWARD VII., A. 1908

List of Vessels which received Fishing Bounty, &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.
121865	Milie Louise.....	Lunenburg.....	80	Abraham Ernst.....	Mahone Bay.	16	193 60
107952	Minnie M. Cook....	"	84	W. C. Smith.....	Lunenburg	18	207 80
116503	Minnie Pearl	"	97	Thos. Hamm.	"	17	200 70
111701	Mizpah	"	100	Martin Westhaver ..	"	15	186 50
116535	Montana	"	85	J. Alex Silver	"	18	207 80
111645	Moran	"	100	Daniel Getson	Getson's Cove..	17	200 70
100606	Myra Louise	"	17	Armenious Strum ..	Mahone Bay....	5	52 50
116530	Nahada	"	94	H. Whynacht.....	Lunenburg	16	193 60
112104	Nina	"	10	Jno. Geldert	"	1	17 10
116502	Oceanic	"	99	Daniel Lohnes	Riverport.....	17	200 70
116500	Oreda	"	16	Henry Selig	Vogler's Cove ..	3	37 30
112106	Oregon	"	99	Stephen Oxner	Riverport.....	17	200 70
112120	Oressa Belle	"	95	Peter B. Zwicker ..	Mahone Bay....	16	193 60
112124	Palanda	"	78	C. U. Mader	"	15	184 50
111642	Palatia	"	95	Chas. L. Silver.....	Lunenburg	18	207 80
111725	Palmetto	"	98	Chas. Smith	"	16	193 60
112113	Parana	"	99	Daniel Lohnes	Riverport.....	17	200 70
121869	Petite	"	61	Jno. D. Sperry	Petite Riviere..	11	139 10
111417	Pilgrim	"	99	Thos. A. Wilson.....	Bridgewater	17	200 70
111402	Protector	"	95	Jos. L. Wilson	"	17	200 70
107653	Renown	"	83	W. C. Smith	Lunenburg	17	200 70
111648	Riviera	"	96	Jas. H. Shankle	E. M. La Have..	21	229 10
107125	Roma	"	99	J. D. Myra	Riverport.....	17	200 70
121856	Ronald G. Smith....	"	100	W. C. Smith	Lunenburg	19	214 90
121991	Rupert	"	78	J. N. Rafuse	Conquerall Bank	17	198 70
111741	Saratoga	"	92	C. U. Mader	Mahone Bay....	17	200 70
116529	Scotia	"	78	Adnah Burns	Dayspring	17	198 70
107963	Shamrock	"	89	Freeman Anderson..	Lunenburg	17	200 70
111407	Strathcona	"	89	"	"	17	200 70
116532	Togo	"	14	Randolph Stevens..	Tancook Isld. ...	3	35 30
107651	Torata	"	92	J. H. Wilson	Lunenburg	18	207 80
111733	Transvaal	"	79	W. C. Smith	"	16	192 60
112111	Tribune	"	22	A. R. Morash	"	4	50 40
112117	Ulva	"	99	A. V. Conrad	Park's Creek....	4	108 40
107957	Ungava	"	88	Wm. Cleversey.....	Pleasantville..	20	222 00
116510	Uranus	"	90	W. C. Smith	Lunenburg	17	200 70
121868	Utowana	"	71	J. N. Rafuse	Conquerall Bank	16	184 60
116504	W. C. Silver	"	97	Kenneth Silver	Dayspring	20	222 00
111649	W. S. Wynot	"	100	C. U. Mader	Mahone Bay....	18	207 80
61904	Water Lily	Liverpool.....	14	Joseph Keddy	Martin's River..	2	28 20
121852	Winnifred	Lunenburg.....	99	Abraham Ernst	Mahone Bay....	19	214 90
112127	Yamaska	"	98	Peter B. Zwicker ..	"	15	186 50
111419	Yukon	"	97	Elijah Ritecy	Riverport.....	17	200 70
122000	Zoraya	"	16	Chas. Levy	Lt. Tancook Isld.	4	44 40

PICTOU COUNTY.

107330	Gertie M. Star.....	Halifax.....	16	Peter Roberts.....	Pictou	2	30 20
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QUEEN'S COUNTY.

73969	Bertha E	Halifax.....	21	Wm. H. Doggett ..	White Point....	4	49 40
111583	Louisa A	Liverpool.....	10	Walter Fraser	Port Mouton....	4	38 40
116919	Madeline	"	16	Grafton Godfrey ..	Brooklyn	5	51 50
116915	Maggie & Esther....	"	11	Reuben J. Colp	Port Mouton....	5	46 50
92568	Mary Kate	Shelburne	13	Herbert Fisher	S. W. P. Mouton	3	34 30
116351	Percy Roy	Port Medway....	99	J. F. Wolfe	Port Medway....	19	214 90
100608	Vesper	Shelburne	14	Robt. Williams.....	S. W. P. Mouton	4	42 40

SESSIONAL PAPER No. 22

LIST OF Vessels which received Fishing Bounty, &c.—Nova Scotia—*Con.*

RICHMOND 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.
107961	Ada Mildred.	Pictou.	99	Jas. Yorston.	Pictou.	19	214 90
117096	Alaska.	Arichat.	10	S. Sampson.	St. Peters.	3	31 30
116657	Alice M.	Yarmouth.	26	R. T. Boudrot.	Petit de Grat.	10	97 00
88456	Alice May.	Arichat.	39	Wm. I. LeVesconte.	River Bourgeois.	6	81 60
116344	Annie B.M.	"	18	W. Mombourquette.	L'Ardoise West.	6	60 60
103463	Annie May.	"	11	Jno. Langley.	Strait Canso.	3	32 30
111472	Annie May.	"	17	Jas. Mombourquette.	Rockdale.	5	52 50
38501	B. Weir & Co.	"	25	Ephraim Gerard.	W. Arichat.	2	30 20
75561	Boreas.	Lunenburg.	41	Jno. A. Colford.	Port Richmond.	4	69 40
72061	C. P. M.	Arichat.	22	Alex Burke.	River Bourgeois.	6	64 60
74100	Candid.	"	23	Desiré Burke.	"	6	65 60
96799	Catherine A.C.	Halifax.	17	Victor Poirier.	Descousse.	7	66 70
59484	Dayspring.	"	36	Andrew Fougere.	River Bourgeois.	10	107 00
116343	Eva May.	Arichat.	11	Thos. A. Boudrot.	Petit de Grat.	5	46 50
112380	Florence M.	"	24	A. Mombourquette.	L'Ardoise West.	5	59 50
116348	Florence M.	"	16	Wm. Martell.	Petit de Grat.	5	51 50
97046	Fredona.	Liverpool.	12	Wm. Lejeune.	Port Royal.	3	33 30
90436	Genesta.	Barrington.	32	J. A. Walker.	Basin R. I.	4	60 40
88599	Guide.	Arichat.	38	Edward Poirier.	L. Descousse.	12	123 20
117049	H. C. Phillips.	Barrington.	11	James Kehoe.	Arichat.	4	39 40
100161	Hilda Maud.	Pt. Hawkesbury.	46	Jno. D. Malcolm.	Port Malcolm.	5	81 50
111476	Indianna.	Arichat.	11	Jas. Wilkie.	Arichat.	4	39 40
100490	Irene M. B.	Lunenburg.	66	Fredk Poirier.	Descousse.	15	172 50
103458	K. McKenzie.	Arichat.	17	Wm. P. Groom.	Grand Greve.	3	38 30
103469	Katie B.	"	16	John Burke.	River Bourgeois.	5	51 50
111480	Lady Laurier.	Arichat.	12	Simon A. Boudrot.	Petit de Grat.	4	40 40
117092	Lass of Gowrie.	"	14	Joseph Petitpas.	Arichat.	4	42 40
107374	Leah Hardy.	Sydney.	20	Peter Landry.	St. Peters.	6	62 60
111905	Lena Jane.	Arichat.	11	Dominic Boudrot.	Petit de Grat.	6	53 60
111901	Lillian Louise.	"	12	Chas. P. Boudrot.	"	5	47 50
103467	Lizzie May.	"	12	Alfred Boudrot.	"	7	61 70
116349	Lorina.	"	18	Simon Landry.	River Bourgeois.	5	53 50
72071	Lumen Diei.	"	20	Urban Sampson.	"	4	48 40
116350	Maggie F.	"	15	Patrick Fougere.	"	5	50 50
107995	Maggie M. F.	Canso.	15	Daniel Pate.	Petit de Grat.	6	57 60
103532	Maria A.	Halifax.	22	John Walker.	Basin R. I.	4	50 40
107769	Martha B.	Charlottetown.	19	Colin E. Matheson.	Grand River.	2	33 20
116345	Mary Alice.	Arichat.	10	Pat. E. Sampson.	L'Ardoise.	4	38 40
111479	Mary Atalanta.	"	15	Peter Bouchard.	River Bourgeois.	5	50 50
116342	Mary Elda.	"	10	Alex. Landry et al.	"	2	24 20
116881	Mary M.	"	21	Alex. Martell.	L'Ardoise.	4	49 40
103462	Maud.	"	20	Henry Duyon.	Arichat.	3	41 30
72067	Minnie.	Pt. Hawkesbury.	26	John Pelham.	Janvrin Isld.	6	168 60
111907	Minnie A.	Arichat.	46	Anslam Sampson.	River Bourgeois.	10	17 00
111904	Minnie L.	"	15	Elias Bois.	Petit de Grat.	4	143 40
74395	Nova Stella.	"	53	L. N. Poirier.	Descousse.	15	59 50
64018	Ocean Bride.	Halifax.	23	Henry Richard.	Arichat.	2	37 20
85562	Oresa.	"	14	Jno. F. Proctor.	Port Malcolm.	1	21 10
100231	Pearl.	"	17	R. Dugas.	W. Arichat.	3	38 30
92571	Primrose.	"	14	Elias V. Landry.	Petit de Grat.	6	56 60
88504	Quickstep.	Sydney.	15	Thos. Hureau.	Cape Augnet.	6	57 60
117095	Rodrid Grace.	Arichat.	17	Hubert Barrett.	L'Ardoise.	3	38 30
116889	Saint Dominique.	"	21	Lawrence Marchand.	Petit de Grat.	6	63 60
111903	Stella.	"	14	Camille Bouchie.	River Bourgeois.	4	142 40
116888	Swanhill.	"	52	Wm. I. Le Vesconte.	"	11	30 10
92599	Thistle.	Sydney.	11	Chas. G. Boudrot.	Petit de Grat.	4	39 40
103460	Two Brothers.	Arichat.	18	Geo. Peters.	L'Ardoise.	7	167 70
100575	Tyler.	"	54	Chas. Boudrot.	River Bourgeois.	14	53 40
111794	Volunteer.	Pt. Hawkesbury.	14	David A. Boudrot.	Petit de Grat.	6	56 60
116292	Wilena Fraser.	Charlottetown.	13	Wm. W. Carrigan.	Janvrin Isld.	3	34 30

LIST OF Vessels which received Fishing Bounty, &c.—Nova Scotia—*Con.*

SHELBURNE 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.
121808	Abbie.....	Yarmouth.....	10	Clifford Atkinson.....	Clam Point.....	4	38 40
121802	Abbie May.....	Barrington.....	10	Wm. E. Atkinson.....	N. E. Point.....	3	31 30
116900	Ada & Pearl.....	Yarmouth.....	13	Jno. T. Duncan.....	Clark's Harbour.	2	27 20
122096	Alfreda.....	".....	11	Peter Nickerson.....	".....	5	46 50
121801	Alice M. Atwood..	".....	10	David A. Atwood.....	Hawk.....	3	31 30
122133	Alter C.....	".....	10	Jno. Y. Smith.....	Baccaro.....	4	38 40
100617	Altona.....	Shelburne.....	28	Wm. McMillan.....	Lockeport.....	7	77 70
117134	Annie Lue.....	Yarmouth.....	10	Jas. M. Crowell.....	Smithville.....	3	31 30
121890	Annie Smith.....	".....	13	Wm. L. Smith.....	Baccaro.....	5	48 50
100612	Ardelta.....	Shelburne.....	10	Eleazer Crowe.....	Sandy Point.....	3	31 30
116824	Avis Pauline.....	Barrington.....	12	W. Kenney.....	Clark's Harbour.	3	33 30
116828	Beatrice.....	".....	12	Frank Swim.....	".....	4	40 40
122102	Bernice N.....	Yarmouth.....	10	Jno. C. Nickerson.....	Wood's Harbour	4	38 40
116855	Blanche.....	Shelburne.....	12	John Matthews.....	Lockeport.....	5	47 50
121806	Blanche.....	Yarmouth.....	10	Alex. Nickerson.....	Wood's Harbour	3	31 30
103186	Brittanna.....	Shelburne.....	11	Ross Enslow.....	W. Green Hbr..	4	39 40
121654	Charles E.....	Yarmouth.....	13	E. Larkin.....	Emerald Isle....	3	34 30
96970	Charlie Richardson.	Shelburne.....	26	Wm. Hardy.....	Allendale.....	8	82 80
122094	Clara M. Smith.....	Yarmouth.....	10	Fredk. C. Smith.....	Newellton.....	4	38 40
116826	Claremont A.....	Barrington.....	11	Samuel Penney.....	Clark's Harbour.	4	39 40
116891	Claude B. Daley....	".....	25	E. V. Smith.....	Port la Tour.....	8	81 80
121681	Claymore.....	Yarmouth.....	10	D. A. Gardiner.....	Clark's Harbour.	3	31 30
94942	Coronilla.....	Shelburne.....	27	Geo. L. Banks.....	Barrington Pasg.	11	105 10
121683	D. E. Nickerson.....	Yarmouth.....	10	Job. E. Nickerson.....	Clark's Harbour.	3	31 30
107057	Dollie Varden.....	Barrington.....	10	Jas. W. Smith.....	Shag Harbour...	3	31 30
121882	Dorothy.....	Yarmouth.....	10	Percy O. Smith.....	Baccaro.....	4	38 40
121906	E. C. Francis.....	Barrington.....	12	Byron H. Smith.....	West Head.....	4	40 40
121791	Eddie C.....	Yarmouth.....	10	Chas. D. Cook.....	Up. Pt. La Tour	4	38 40
116830	Edith Pauline.....	Barrington.....	10	R. C. Swim.....	Clark's Hbr.....	3	31 30
121884	Emma B.....	Yarmouth.....	10	Walter S. Ross.....	Stoney Isld.....	3	31 30
107332	Estelle.....	".....	15	Jas. C. Sears.....	Woods Hbr.....	5	50 50
121688	Ethel May.....	".....	10	S. Messenger, Sr..	West Head.....	6	52 60
112137	Etta M.....	".....	10	C. Kendrick.....	Shag Hbr.....	2	24 20
121796	Etta N.....	".....	10	A. Messenger.....	Newellton.....	3	31 30
103795	Etta Vaughan.....	Shelburne.....	98	B. P. Thorbourn.....	Sandy Point.....	22	236 20
121901	Eva M.....	Barrington.....	11	Byron Swin.....	Clark's Hbr.....	4	39 40
117048	Evangeline.....	".....	11	Foster Crowell.....	".....	2	25 20
107054	Favorite.....	".....	28	David S. Slate.....	Cape Negro.....	9	91 90
121804	Fish Hawk.....	Yarmouth.....	10	James Lowe.....	Clark's Hbr.....	2	24 20
122106	Florence M.....	".....	10	Jno. E. Nickerson.....	West Head.....	3	31 30
107350	Forrester.....	Shelburne.....	23	J. E. Pennington.....	Sandy Point.....	8	79 80
117045	Fred C.....	Barrington.....	12	Moses G. Smith.....	West Head.....	4	40 40
121907	Freda N. Nickerson	".....	12	P. W. Nickerson.....	Clam Point.....	4	40 40
121697	Freddie M.....	Yarmouth.....	10	N. Crowell.....	Clark's Hbr.....	2	24 20
121793	Fredena.....	".....	10	S. Hopkins.....	".....	4	38 40
117041	Genevive.....	Barrington.....	11	D. H. Flemming.....	Cape Negro.....	5	46 50
122142	Gertrude.....	Yarmouth.....	10	Geo. M. Forbes.....	Forbes Point.....	2	24 20
112138	Gladiator.....	Shelburne.....	11	H. N. Enslow.....	McNutt's Isld..	2	25 20
116827	Gladys.....	Barrington.....	12	Benj. L. Goodwin.....	N. E. Point.....	4	40 40
111683	Greenwood.....	Shelburne.....	71	E. P. Greenwood.....	N. E. Harbour..	15	177 50
121797	Hattie and Ina.....	Yarmouth.....	10	Arthur H. Perry.....	N. W. Harbour..	4	38 40
121805	Hattie Quinlen.....	".....	10	Wm. L. Quinlen.....	Clark's Hbr.....	4	38 40
122139	Hazel.....	".....	10	D. E. Watkins.....	Atwoods Brook.	4	38 40
122100	Helen C.....	".....	10	N. Crowell.....	Woods Hbr.....	3	31 30
107060	Herald.....	Barrington.....	42	Paul E. Crowell.....	Barrington Pasg	8	98 80
122141	Hillside.....	Yarmouth.....	10	S. L. Nickerson.....	Forbes Point.....	1	17 10
111687	Ida M. Clarke.....	Shelburne.....	99	Wm. McMillan.....	Lockeport.....	22	236 20
117131	Ilona & Ida.....	Barrington.....	13	Wm. Madden.....	Baccaro.....	5	48 50
121904	Iona & Maggie.....	".....	11	Whitman Ross.....	Stoney Island..	4	39 40
116853	J. J. Cox.....	Shelburne.....	65	R. L. McCarthy.....	Shelburne.....	10	136 00
116822	Jannet.....	Barrington.....	11	Thos. A. Kenney.....	Clark's Hbr.....	4	39 40
122138	Jennie L.....	Yarmouth.....	10	Jas. A. Smith.....	Port La Tour...	4	38 40

SESSIONAL PAPER No. 22

List of Vessels which received Fishing Bounty, &c.—Nova Scotia—Continued.

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.
117133	Jennie Roy	Yarmouth ..	10	Leslie Smith	Baccaro	4	38 40
116823	Jessie Roy	Barrington ..	11	Job A. Crowell	Clark's Hbr	4	39 40
121692	Josephine	Yarmouth ..	10	Fredk. N. Newell	West Head	3	31 30
122131	Katie M.	"	10	C. Reynolds	Baccara	3	31 30
121798	Kenneth S.	"	10	Geo. H. Smith	Clark's Hbr	3	31 30
107981	Kestrel	Shelburne ..	99	Geo. A. Cox	Shelburne	22	236 20
121889	Kuroki	Yarmouth ..	10	J. A. Newell	Newellton	4	38 40
94661	L. C. Tough	Shelburne ..	12	E. H. Swaine	Blanche	6	54 60
100329	La Rose	Yarmouth ..	13	Noah Abbott	Forbes Point	4	41 40
117136	Laura B.	"	10	Hayzen Lowe	Clark's Hbr	3	31 30
117140	Laura E.	"	10	O. T. Reynolds	Up. Pt. La Tour	4	38 40
121887	Lena	"	11	Avert D. Smith	Newellton	3	32 30
121633	Little Charley	"	10	Howard Newell	West Head	3	31 30
122105	Lottie G.	"	10	V. Brannen	Woods Hbr.	3	31 30
122098	Louise	"	10	D. H. Langthorn	"	3	31 30
121903	M. F. Atwood	Barrington ..	15	Wm. D. Atwood	Clark's Hbr .....	..	15 00
103796	Mabel Denvers	Shelburne ..	14	Jno. H. Reynolds	Reynoldscroft	4	42 40
121880	Mabel C.	Yarmouth ..	20	Angus Nickerson	Stoney Isld.	3	31 30
122140	Mabel L.	"	10	Harry Banks	Shag Hbr.	2	24 20
121799	Mabel V.	"	10	Daniel V. Smith	Clark's Hbr.	2	24 20
116829	Maple Leaf	Barrington ..	11	Henry Penney	South Side	5	46 50
121888	Margaret	Yarmouth ..	10	I. S. Newell	West Head	2	24 20
116854	Mariana	Shelburne ..	33	Austin Swansburg	Little Hbr.	10	104 00
121803	Mary J.	Yarmouth ..	10	Mark Atwood	Hawk	3	31 30
83484	Mary May	Shelburne ..	20	Adam Firth	Shelburne	4	48 40
121879	Matilda	Yarmouth ..	10	E. P. Crowell	Port La Tour	2	24 20
117043	Mattie and Charlie	Barrington ..	10	Cyrus Nickerson	Clark's Hbr.	3	31 30
103057	Mayflower	Yarmouth ..	12	Albert Crowell	Lockeport	5	47 50
121794	Moowena	Yarmouth ..	10	B. C. Crowell	Port La Tour	3	31 30
122103	Muriel S.	"	10	Thos. Symonds	Clark's Hbr.	4	38 40
103800	Nellie I. King	Shelburne ..	99	Geo. H. King	Sandy Point	22	236 20
117132	Nema D.	Barrington ..	10	Jas. C. Brannen	Baccara	4	38 40
122136	Nyctia	Yarmouth ..	10	Edgar Adams	Shag Hbr.	4	38 40
121689	Ocean Belle	"	10	Benj. Newell	West Head	4	38 40
122104	Ocean Spray	"	11	Chas. E. Atkinson	Newellton	3	32 30
117050	Olive R.	Barrington ..	12	H. B. Swim	Lockeport	5	47 50
121893	Orinoco	Shelburne ..	15	Jas. Benham	"	4	43 40
121682	Quick Step	Yarmouth ..	10	C. Maxwell	Clark's Hbr.	3	31 30
121881	R. G. Hervey	"	13	Alex. Phillips	"	3	34 30
117044	S. B. Millard	Barrington ..	20	Jos. M. Symonds	"	6	62 60
121684	Seaton L.	Yarmouth ..	11	N. Smith	"	3	32 30
122108	Seretha	"	10	S. N. Atkinson	Newellton	3	31 30
116860	Stella	Shelburne ..	77	Churchill Locke	Lockeport	16	190 60
107990	Terence C. Lock- wood	"	98	Wm. McMillan	"	22	236 20
117139	Thalia D.	Yarmouth ..	10	Andrew Duncan	Clark's Hbr.	4	38 40
116895	Thelma E.	"	11	D. E. Cunningham	Hawk	4	39 40
122091	Thistle	"	10	Robt. H. Brannen	Stoney Isld.	4	38 40
117046	Three Brothers	Barrington ..	13	Thos. J. Newell	Lockeport	5	48 50
116825	Three Sisters	"	11	Reuben Penney	N. E. Point	4	39 40
116448	Togo	Shelburne ..	18	E. C. Locke	Lockeport	6	60 60
121792	Twin Sisters	Yarmouth ..	10	Sydney Stephens	Hawk	4	38 40
122107	Two Sisters	"	10	Bert. Chetwynd	Woods Hbr.	4	38 40
121699	Una	"	10	Wm. C. Nickerson	West Head	2	24 20
103716	Valkyrie	"	11	Orman Garron	Shag Hbr.	5	46 50
121894	Vice Reine	Shelburne ..	12	Eleazer Penney	South Side	6	54 60
77744	Whip-poor-Will	"	17	Wm. P. Smith	N. W. Harbour	5	52 50
117042	White Eagle	Barrington ..	10	G. L. Nickerson	N. E. Point	4	38 40
121690	Winnifred	Yarmouth ..	10	Allan Nickerson	Clark's Hbr.	3	31 30
103183	Wren	Shelburne ..	22	Wm. McKay	Roseway	11	100 10
116449	Zephyr	"	11	Samuel Greenwood	Port Saxon	4	39 40
121656	Zilpha	Yarmouth ..	10	Martin Penney	South Side	4	38 40

7-8 EDWARD VII., A. 1908

LIST of Vessels which received Fishing Bounty, &c.—Nova Scotia—*Continued.*

VICTORIA 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.
117028	Anna F.	Sydney.....	14	Jas. Brewer	South Ingonish..	5	49 50
112388	Annie Amelia	"	13	Mathew Hawley	Ingonish Ferry ..	5	48 50
117030	Gertrude W.	"	16	Chas. Williams.....	South Ingonish..	5	51 50
107377	Maggie Ella.....	"	11	Wm. Thos. Donovan ..	"	5	46 50
107355	Mary E.	"	10	Allan McIntyre.....	Ingonish Ferry..	5	45 50
100444	Stella May	Canso	12	Simon Hawley.....	"	6	54 60
117029	Two Brothers	Sydney.....	17	Vincent Williams.....	South Ingonish..	5	52 50

YARMOUTH COUNTY.

121876	Adoriam	Yarmouth.....	15	Armand LeBlanc	Plymouth	3	36 30
122132	Aerolite	"	16	Jas. J. Duncan.....	Yarmouth	3	37 30
116898	Agnes M.	"	11	I. Doucett.....	Tusket Wedge ..	4	39 40
122093	Anita.....	"	11	Benj. Bourque.....	Sluice Point	2	25 20
111879	Annie B.	"	20	Theodore D'Entremont	West Pubnico ..	8	76 80
121652	Arabia	"	10	E. J. LeBlanc	Tusket Wedge ..	3	31 30
121698	Argo	"	10	Mark Boudreau.....	Yarmouth	3	31 30
121695	Aroma S.	"	10	J. J. D'Eon	West Pubnico ..	2	24 20
121635	Augusta.....	"	11	Leon D. Boudreau ..	Tusket Wedge ..	3	32 30
122109	Bella.....	"	18	Wm. Pothier.....	"	2	32 20
103187	Ben Bolt	"	91	Henry Lewis	Yarmouth.....	18	207 80
107053	Bonnie Lin.....	Barrington ..	10	Edgar Landers.....	Sandford.....	1	17 10
107338	C. M. B.	Yarmouth.....	10	J. C. McGray.....	Sand Beach.....	3	31 30
107346	Caddie	"	10	Jas. E. Perry	Port Maitland ..	4	38 40
121886	Carrie D.	"	10	Thos. Duncan.....	Yarmouth	3	31 30
122145	Cerita	"	10	Jno. C. Doucette.....	L. Tusket Wedge	3	31 30
116652	Champion	"	29	J. A. Crocker	Yarmouth	9	92 90
111836	Chevalier	Digby	11	Warren Sollows.....	Port Maitland ..	4	39 40
121694	Columbia.....	Yarmouth.....	10	N. S. Boudreau.....	Tusket Wedge ..	3	31 30
100605	Dawn	Barrington ..	49	Henry A. Amiro	West Pubnico.....	15	155 50
121686	Dora Lee.....	Yarmouth.....	10	Jno. P. Cotreau.....	Tusket Wedge ..	3	31 30
116205	Eddie James.....	"	79	Henry A. Amiro	West Pubnico.....	20	221 00
121800	Edessa	"	15	Geo. Michael.....	Sandford.....	2	29 20
112280	Edith L.....	Digby	26	Jas. Adams.....	Port Maitland ..	6	68 60
121809	Estella	Yarmouth.....	11	Nicholas Pothier.....	Tusket Wedge ..	1	11 00
121883	Fanny Rose.....	"	15	Chas. E. Pothier.....	"	6	57 60
122095	Felton C.	"	16	R. B. Wyman.....	Arcadia	2	30 20
121874	Finettie May	"	12	J. A. Crocker	Yarmouth	5	47 50
122146	Flirt	"	16	Marc Boudreau.....	Tusket Wedge ..	5	51 50
94972	Florence.....	"	19	George Shaw.....	Sandford.....	5	54 50
121877	Florence C.....	"	15	Jno. L. Surette.....	Pinkney's Point ..	4	43 40
112282	Florence H.....	"	20	Riley Haskell.....	Port Maitland ..	6	62 60
121872	Francis A.....	"	93	Henry A. Amiro	West Pubnico.....	21	229 10
80798	Freddie G.....	Digby	17	Alvin Webb	Port Maitland ..	6	59 60
117135	Fusiana	Yarmouth.....	12	H. T. Hines	Central Argyle ..	2	26 20
116207	Gabriel A.....	"	17	T. Jacquard.....	Comeau's Hill ..	7	66 70
121885	Genesta	"	13	A. L. D'Entremont.....	Yarmouth.....	3	34 30
111876	Geneva May.....	"	72	Léonde Amiro.....	E. Pubnico.....	19	206 90
90885	Georgiana	"	90	Henry Lewis.....	Yarmouth	22	236 20
122092	Georgie M. Smith ..	"	13	Thos. E. Smith.....	"	4	41 40
117137	Gloriana.....	"	10	J. D. Boudreau.....	Tusket Wedge ..	3	31 30
107342	Harry C. Ellis.....	"	16	Arthur W. Smith.....	Yarmouth	3	37 30
116894	Harry M. Johnson ..	"	14	Chas. H. Crowell.....	"	3	35 30
103717	Henry L.	"	10	A. C. D'Entremont.....	West Pubnico.....	3	31 30
122099	Hilda	"	17	J. A. Boudreau.....	Tusket Wedge ..	4	45 40
121655	Indianna	"	10	Marc D. Boudreau.....	"	4	38 40
121795	John L.	"	11	F. L. Pothier.....	"	3	32 30
116204	Laurie J.	"	65	J. D'Entremont.....	West Pubnico.....	18	192 80

SESSIONAL PAPER No. 22

List of Vessels which received Fishing Bounty, &c.—Nova Scotia—*Con.*YARMOUTH 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.
59388	Letitia.	St. Andrews. . . .	10	H. B. MacCormack. . . .	Sandford.	4	38 40
103709	Lizzie E.	Yarmouth	19	E. Juston Ellis.	Port Maitland. . .	4	47 40
103718	Lucy.	"	10	A. F. D'Entremont. . . .	West Pubnico. . .	3	31 30
121871	Ludivica.	"	11	H. T. LeBlanc.	Tusket Wedge. . .	4	39 40
116899	Lydia L.	"	14	Norman LeBlanc.	Plymouth	4	42 40
88596	M. A. Louis.	"	64	N. J. B. Tooker.	Yarmouth	20	206 00
116658	Mabel A.	"	15	Eben Frost.	Lit. River Hbr. . .	6	57 60
107605	Mabel M.	Weymouth	26	Edison Ellis.	Port Maitland. . .	6	62 60
103712	Marguerite	Yarmouth	10	H. Surette.	Tusket Wedge. . .	4	38 40
107337	Marguerite	"	57	L. D'Entremont.	West Pubnico. . .	16	170 60
121905	Mira L. Smith.	Barrington.	14	T. F. Smith.	Yarmouth	3	35 30
111875	Nelson A.	Yarmouth	72	Henry A. Amiro.	West Pubnico. . .	20	214 00
103706	Regine	"	10	L. A. D'Entremont. . . .	"	3	31 30
111521	Retta E.	Digby	10	Calvin Sollows.	Port Maitland. . .	4	38 40
121633	Royal.	Yarmouth	10	Geo. Bondreau.	Tusket Wedge. . .	3	31 30
88589	Sanford.	"	20	Wm. A. Killam.	Yarmouth		20 00
121878	Selma.	"	14	Leo Cotreau.	Tusket Wedge. . .	3	35 30
100323	Senora	Pubnico	85	Marc A. Surette.	West Pubnico. . .	21	229 10
116656	Silver Spray.	Yarmouth	11	C. O. Nickerson.	Yarmouth	4	39 40
100313	Souvenir.	"	71	G. H. D'Entremont. . . .	West Pubnico. . .	20	213 00
121660	Squanto.	"	11	A. L. Doucette.	Tusket Wedge. . .	3	32 30
122135	10 U. 8.	"	16	Wilson Rankin.	Arcadia	3	37 30
121875	Toronto.	"	13	Benj. C. Smith.	Yarmouth	4	41 40
122651	Valentina.	"	10	S. LeBlanc.	Tusket Wedge. . .	4	38 40
103711	Venite	Digby	24	Jesse A. Ellis.	Yarmouth	7	73 70
122134	Venus	Yarmouth	10	L. P. Surette.	Tusket Wedge. . .	3	31 30
121639	Viola	"	10	J. LeBlanc.	"	1	17 10
121873	Viola S.	"	16	Leander Surette.	Surette Isld. . . .	6	58 60

PROVINCE OF NEW BRUNSWICK.

CHARLOTTE COUNTY.

116965	Admiral Togo...	St. Andrews....	12	Walter Benson.....	Seal Cove..... 3	33 30
107913	Arnold B.....	".....	10	H. H. Cheney.....	White Head.... 3	31 30
111557	Audley R.....	".....	19	S. R. Watt.....	North Head.... 5	54 50
107603	Augusta Evelyn.	St. John.....	31	James Scovil.....	"..... 9	94 90
83469	Austin P.....	St. Andrews....	12	A. R. Phillips.....	Campobello.... 2	26 20
107903	Ava M.....	".....	17	Geo. A. Johnson....	Woodwards C've 4	45 40
111503	Bonnie Jean....	St. John.....	12	Frank Ingersoll....	North Head.... 1	19 10
103128	Britannia.....	St. Andrews....	22	Mariner Calder et al.	Wilson's Beach.. 4	50 40
107905	Centennial.....	".....	16	John F. Morse.....	White Head.... 3	37 30
106671	Dreadnaught....	".....	18	Frank Benson.....	Seal Cove..... 4	46 40
88253	E. B. Colwell....	St. John.....	19	Robert Barry.....	Beaver Hbr.... 3	40 30
103114	Edward Morse....	St. Andrews....	32	Alex. Calder.....	Welchpool..... 10	103 00
103789	Effie B. Nickerson.	Shelburne.....	22	Alfred Stanley....	Flagg's Cove... 4	50 40
111522	Elizabeth.....	Digby.....	21	W. M. Kent.....	Woodward's C've 4	49 40
80882	Ella Mabel.....	St. Andrews....	14	Eldorado Lee.....	Beaver Hbr.... 2	28 20
107793	Ethel & Carrie...	St. John.....	15	Scott Wooster.....	Grand Hbr.... 4	43 40
116675	Evangeline.....	St. Andrews....	15	Arthur Green.....	Seal Cove..... 4	43 40
80803	Exenia.....	Windsor.....	18	Milton Cronk.....	North Head.... 6	60 60
100535	Fairplay.....	Yarmouth.....	11	Luke Holmes.....	Black's Hbr.... 2	25 20
88276	Falcon.....	St. Andrews....	12	Calvados Brown....	Wilson's Beach.. 2	26 20
103120	Falmouth.....	".....	10	A. B. Small.....	Woodward's C've 3	31 30
111552	Flora B.....	".....	13	Nelson Ingersoll....	"..... 3	34 30
116968	Florence.....	".....	18	J. F. Eldridge....	Beaver Hbr.... 5	53 50
94835	Georgie Linwood.	Digby.....	25	Jno. R. Moses.....	North Head.... 5	60 50
107916	Glenita C.....	St. Andrews....	12	C. E. Guptill.....	White Head.... 3	33 30
107910	Grace & Ethel....	".....	16	Robert Ingersoll....	Woodward's C've 5	51 50

7-8 EDWARD VII., A. 1908

LIST of Vessels which received Fishing Bounty, &c.—New Brunswick—*Con.*CHARLOTTE 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.
111839	Harry C.	Digby.	16	Lewis Mathews.	Letete.	3	37 30
83463	Havelock.	St. Andrews.	33	Wm. James.	Wilson's Beach.	4	61 40
116961	J. E. Garland.	"	72	Simon Brown.	"	3	33 30
116963	Jennie & Julia.	"	13	Jno. Carter.	Seeley's Cove.	5	48 50
103997	Jessie James.	"	11	J. Frankland.	White Head.	3	32 30
88273	Lillian C.	"	13	Jno. Seeley.	St. John.	7	62 70
59521	Little Nell.	"	21	Wm. McLellan.	Welchpool.	3	42 30
122042	Lyla H.	"	11	Owen Frankland.	White Head.	3	32 30
92514	Maggie Jane.	"	10	Harvey Cook.	Back Bay.	2	24 20
107479	Marguerite.	Digby.	24	Frank McDonald.	Campobello.	4	52 40
107438	Minnie F.	St. Andrews.	11	Wm. A. Guptill.	Seal Cove.	3	32 30
116897	Myrtle S.	Yarmouth.	12	Henry Benson.	Seal Cove.	4	40 40
103705	Nebula.	"	24	Nathaniel Beal.	North Head.	5	59 50
122044	Oliva C.	St. Andrews.	26	Thomas Carter.	Seeley's Cove.	4	54 40
112311	Oronhyatekha.	"	21	James McLeese.	Back Bay.	5	56 50
92518	Peril.	"	18	Martin Eldridge.	Beaver Hbr.	1	25 10
103993	Pythian Knight.	"	19	Frank Ingersoll.	North Head.	5	54 50
107904	Quoddy Queen.	"	13	Hantford Small.	White Head.	5	48 50
107806	Rena F.	St. John.	12	John Ingersoll.	Woodward's Cove.	5	47 50
83253	Rescue.	Annapolis.	17	James Nesbitt.	North Head.	5	52 50
122043	Sea Foam.	St. Andrews.	14	M. C. Kent.	Seal Cove.	3	35 30
111556	She Said No.	"	11	John R. Moses.	North Head.	3	32 30
107433	Sir John.	"	11	Hiram Morse.	White Head.	4	39 40
116964	Tethys.	"	20	Geo. L. Johnson.	Leonardville.	2	34 20
88114	Trumpet.	St. John.	20	Geo. U. Wright.	Beaver Hbr.	3	41 30
103998	Try Again.	St. Andrews.	15	A. W. Ingersoll.	Woodward's Cove.	3	36 30
111555	Valkyrie.	"	16	L. C. Watt.	North Head.	4	44 40
116970	Vigilant.	"	12	W. Cossaboom.	White Head.	3	33 30
106548	Violetta.	Digby.	11	Albert Tucker.	Letete.	3	32 30
103111	Volunteer.	St. Andrews.	14	Geo. Ingersoll.	Woodward's Cove.	2	28 20
97149	Winnie.	"	12	Joseph Holland.	Seeley's Cove.	3	33 30
107917	Zelma.	"	17	Henry Frankland.	White Head.	5	52 50

GLOUCESTER COUNTY.

72099	Adelina.	Chatham.	12	Clement Lanteigne.	Lameque.	4	40 40
103009	Adeline Gladys.	"	12	P. Blanchard.	Caraget.	4	40 40
103081	Albatross.	"	13	W. Fruing & Co.	Shippegan.	4	41 40
112156	Albert W.	"	10	P. Chiasson.	Caraget.	4	38 40
97194	Alika.	"	12	Lange Paulin.	Lameque.	4	40 40
112162	Alma.	"	12	Agapit Duguay.	"	5	47 50
103763	Alonette.	"	10	Wm. Fruing & Co.	Shippegan.	4	38 10
92419	Anna.	"	12	A. D. Chiasson.	Lameque.	2	26 20
100960	Annie M.	"	11	W. S. Loggie Co.	Chatham.	4	39 40
96739	Argeline.	"	14	Octave Paulin.	Caraget.	5	49 50
103085	Argentina.	"	12	C. Robin, Collas Co.	"	4	40 40
100983	Bee.	"	11	Jas. Doucet.	"	4	39 40
61431	Bee.	"	11	Paul Noel.	Lameque.	4	39 40
103072	Ben Hur.	"	11	John Leclerc.	Caraget.	4	39 40
72079	Betsy.	"	13	Wm. Fruing & Co.	Shippegan.	4	41 40
100975	Big Bear.	"	10	F. T. B. Young.	Caraget.	3	31 30
116474	Blanchard.	"	12	Michael John.	"	4	40 40
100299	Blanchard.	"	12	C. Robin, Collas Co.	"	5	47 50
103589	Blenheim.	"	13	"	"	5	48 50
103780	Britannia.	"	13	Wm. Fruing & Co.	Shippegan.	4	41 40
100780	Britannic.	"	12	W. S. Loggie Co.	Chatham.	4	40 40
111465	C.R.C.	"	13	C. Robin, Collas Co.	Caraget.	4	41 40
100908	Caesar.	"	10	Philip Rive.	"	3	31 30
100774	Calliope.	"	12	"	"	3	33 30

SESSIONAL PAPER No. 22

List of Vessels which received Fishing Bounty, &c.—New Brunswick—*Continued.*GLOUCESTER 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.
103271	Celia.....	Chatham.....	11	D. Gallien.....	Caraquet.....	1	18 10
103585	Cerdric.....	".....	14	P. Rive.....	".....	4	42 40
100784	Charlotte.....	".....	18	F. T. B. Young.....	".....	4	41 40
100789	Chazalie.....	".....	11	".....	".....	3	32 30
96730	Christina.....	".....	11	C. Robin, Collas Co.....	".....	3	32 30
101000	Condor.....	".....	10	Wm. Fruing & Co.....	Shippegan.....	4	38 40
103083	Corsair.....	".....	10	".....	".....	3	31 30
100916	Cygnat.....	".....	12	C. Robin, Collas Co.....	Caraquet.....	3	33 30
100971	Cyprian.....	".....	10	J. O. Le Bouthillier.....	".....	4	38 40
100913	Daffodil.....	".....	10	Wm. Fruing & Co.....	Shippegan.....	3	31 30
100915	Dawn.....	".....	12	C. Robin, Collas Co.....	Caraquet.....	3	33 30
103076	Dipper.....	".....	12	W. S. Loggie Co.....	Chatham.....	4	40 40
103948	Dora.....	".....	12	C. Robin, Collas Co.....	Caraquet.....	3	33 30
112155	Dora.....	".....	10	Seraphin Doiron.....	Miscou.....	4	38 40
122053	Dorie.....	".....	10	F. Chiasson.....	Island River.....	4	38 40
100999	Dove.....	".....	11	Wm. Fruing & Co.....	Shippegan.....	4	39 40
100998	Eagle.....	".....	10	".....	".....	4	38 40
116979	Elie Anne.....	".....	17	X. X. Lanteigne.....	Caraquet.....	4	45 40
100293	Eliza.....	".....	15	F. T. B. Young.....	".....	4	43 40
103590	Eliza.....	".....	13	C. Robin, Collas Co.....	".....	4	41 40
100911	Emperor.....	".....	10	Wm. Fruing & Co.....	Shippegan.....	3	31 30
100786	Empress.....	".....	12	F. T. B. Young.....	Caraquet.....	3	33 30
103776	Esk.....	".....	14	".....	".....	4	42 40
100772	Estelle.....	".....	13	P. Rive.....	".....	3	34 30
100787	Ethel.....	".....	11	F. T. B. Young.....	".....	4	39 40
100905	Evangeline.....	".....	10	P. A. Lanteigne.....	".....	5	45 50
92417	Evangeline.....	".....	11	Maximin Paulin.....	L. Lameque.....	4	39 40
103001	Falcon.....	".....	10	Wm. Fruing & Co.....	Shippegan.....	4	38 40
103077	Fame.....	".....	10	Geo. D. Maillet.....	".....	4	38 40
100298	Fisher.....	".....	12	Hubert Paulin.....	L. Lameque.....	5	47 50
61445	Flavie.....	".....	13	Wm. Fruing & Co.....	Shippegan.....	4	41 40
111468	Fleetwing.....	".....	14	".....	".....	4	42 40
112165	Flying Cloud.....	".....	13	John Robichaud.....	".....	4	41 40
100782	Flying Foam.....	".....	12	F. T. B. Young.....	Caraquet.....	4	40 40
112151	Flying Foam.....	".....	18	C. Robin, Collas Co.....	".....	4	46 40
100912	Foam.....	".....	10	Jos. Z. Chiasson.....	".....	2	24 20
116479	Fortuna.....	".....	10	P. Boudreau.....	Mizonette.....	3	31 30
111467	Four Brothers.....	".....	13	P. S. Albert.....	Caraquet.....	4	41 40
109778	Gambetta.....	".....	13	W. S. Loggie Co.....	Chatham.....	4	41 40
111464	Gazelle.....	".....	13	C. Robin, Collas Co.....	Caraquet.....	4	41 40
100954	Gazelle.....	".....	10	W. S. Loggie Co.....	Chatham.....	5	45 50
100968	Gem.....	".....	11	C. Robin, Collas Co.....	Caraquet.....	4	39 40
96733	Gem.....	".....	12	Wm. Fruing & Co.....	Shippegan.....	4	40 40
103766	Genesta.....	".....	12	T. Poirier.....	Caraquet.....	3	33 30
116989	Georgina.....	".....	15	G. Duguay.....	L. Lameque.....	5	50 50
103282	Gilknockie.....	".....	11	F. T. B. Young.....	Caraquet.....	3	32 30
111848	Gipsy.....	".....	15	Wm. Fruing & Co.....	Shippegan.....	4	43 40
103086	Gipsy.....	".....	20	W. S. Loggie Co.....	Chatham.....	5	55 50
100964	Gladstone.....	".....	10	I. Lanteigne.....	Caraquet.....	4	38 40
100910	Gleaner.....	".....	12	Luke Lanteigne.....	".....	4	40 40
107775	Gold Seeker.....	".....	13	C. Robin, Collas Co.....	".....	3	34 30
112157	Grasshopper.....	".....	16	P. Rive.....	".....	3	37 30
92418	Grip.....	".....	12	Gustave Chenard.....	".....	4	40 40
100790	Guiding Star.....	".....	11	F. T. B. Young.....	".....	3	32 30
111849	Happy Home.....	".....	16	H. Le Bouthillier.....	".....	5	51 50
100956	Harold N.....	".....	12	P. Mallet.....	Shippegan.....	5	47 50
100994	Hercules.....	".....	10	P. M. Lanteigne.....	Caraquet.....	4	38 40
107771	Heron.....	".....	13	Wm. Fruing & Co.....	Shippegan.....	4	41 40
103765	Hirondelle.....	".....	11	Agapit Leclerc.....	Caraquet.....	4	39 40
61425	Hope.....	".....	13	Jos. V. Lanteigne.....	".....	4	41 40
100903	Hope.....	".....	12	F. T. B. Young.....	".....	4	40 40
103939	Hope.....	".....	11	Chas. Rail.....	L. Shippegan.....	4	39 40

7-8 EDWARD VII., A. 1908

LIST of Vessels which received Fishing Bounty, &c.—New Brunswick—*Con.*GLOUCESTER 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.
100906	Hotspur.....	Chatham.....	10	P. Rive.....	Caraquet.....	4	38 40
117181	Ida.....	".....	16	Jos. Savoy.....	Lameque.....	5	51 50
103931	Irene.....	".....	12	Wm. Fruing & Co.....	Shippegan.....	3	33 30
96724	Isabel.....	".....	11	Jean B. Hebert.....	".....	5	46 50
103289	Jersey Lily.....	".....	12	Wm. Fruing & Co.....	".....	3	33 30
100958	John B.....	".....	11	W. S. Loggie Co.....	Chatham.....	4	39 40
100965	Josephine.....	".....	11	P. Rive.....	Caraquet.....	3	32 30
112169	Kathleen.....	".....	15	Wm. Fruing & Co.....	Shippegan.....	4	43 40
111466	King Edward.....	".....	14	C. Robin, Collas Co.....	Caraquet.....	5	49 50
103949	King Fisher.....	".....	13	Wm. Fruing & Co.....	Shippegan.....	3	34 30
103288	Kite.....	".....	10	".....	".....	4	38 40
107774	Klondyke.....	".....	14	C. Robin, Collas Co.....	Caraquet.....	4	42 40
103283	Koh-i-noor.....	".....	13	P. Rive.....	".....	3	34 30
111461	Ladysmith.....	".....	17	H. Chiasson.....	L. Lameque.....	5	52 50
103003	Lark.....	".....	10	Wm. Fruing & Co.....	Shippegan.....	3	31 30
107773	L'Etoile.....	".....	15	Prudent Gallien.....	Caraquet.....	4	43 40
112152	Lillian.....	".....	15	C. Robin, Collas Co.....	".....	4	43 40
100972	Lizzie D.....	".....	12	F. T. B. Young.....	".....	3	33 30
100902	Lord Stanley.....	".....	10	Wm. Fruing & Co.....	Shippegan.....	3	31 30
116977	Mabel.....	".....	15	W. S. Loggie Co.....	Chatham.....	5	50 50
112154	Mac.....	".....	11	John M. Ward.....	Miscou.....	5	46 50
116480	Vaggie.....	".....	10	John Paulin.....	Caraquet.....	4	38 40
100955	Majestic.....	".....	10	W. S. Loggie Co.....	Chatham.....	4	38 40
112158	Maple Leaf.....	".....	13	Wm. Fruing & Co.....	Shippegan.....	4	41 40
107779	Marie.....	".....	15	Gaspard Savoie.....	".....	4	43 40
72100	Marie.....	".....	11	Eugène Gauvin.....	Lameque.....	4	39 40
103278	Marie Celia.....	".....	13	C. Robin, Collas Co.....	Caraquet.....	5	48 50
117182	Marie Etoile.....	".....	20	Joseph A. Doiron.....	".....	5	55 50
116978	Margaret.....	".....	16	W. S. Loggie Co.....	Chatham.....	4	44 40
112163	Margaret Anne.....	".....	13	Jno. Jones.....	L. Lameque.....	4	41 40
100292	Marie Joseph.....	".....	12	Lazare Gauvin.....	".....	4	40 40
100295	Marie Lounsa.....	".....	18	J. A. Paulin.....	Caraquet.....	4	46 40
116471	Marie Louise.....	".....	10	Gustave Chiasson.....	".....	3	31 30
111847	Mary.....	".....	14	David Albert.....	".....	4	42 40
103084	Mary Emma.....	".....	11	Wm. Fruing & Co.....	Shippegan.....	3	32 30
92413	Mary Jane.....	".....	14	R. P. Doiron.....	Caraquet.....	5	49 50
116478	Mary O.....	".....	11	J. O. Cormier.....	Mizonette.....	3	32 30
100957	Mary R.....	".....	12	W. S. Loggie Co.....	Chatham.....	4	40 40
116475	Mary Rose.....	".....	17	Wm. Cormier.....	Caraquet.....	6	59 60
112161	Mary Star.....	".....	15	H. Le Bouthillier.....	".....	4	43 40
112150	Mary Star of the Sea	".....	15	Luc Friolet.....	".....	5	50 50
111844	Mary Star of the Sea	".....	14	C. Robin, Collas Co.....	Caraquet.....	4	42 40
116477	Mary Star of the Sea	".....	20	Ferdinand Savoy.....	Shippegan.....	3	48 40
103768	May Flower.....	".....	13	C. Robin, Collas Co.....	Caraquet.....	3	34 30
107777	May Flower.....	".....	11	Octave Benoit.....	L. Lameque.....	5	46 50
111462	May Flower.....	".....	10	H. Kent.....	Miscou.....	4	38 40
100779	Mermaid.....	".....	11	W. S. Loggie Co.....	Chatham.....	4	39 40
112164	Merry Christmas.....	".....	13	Celestin Jean.....	L. Lameque.....	4	41 40
100390	Mikado.....	".....	13	C. Robin, Collas Co.....	Caraquet.....	4	41 40
117188	Morning Star.....	".....	14	Romain Noel.....	Lameque.....	4	42 40
88669	Morning Star.....	".....	12	Gustave Gionet.....	St. Rose.....	1	19 10
122052	Opal.....	".....	10	P. J. Chiasson.....	Isld. River.....	4	38 40
103004	Oilole.....	".....	11	Wm. Fruing & Co.....	Shippegan.....	3	32 30
103005	Osprey.....	".....	10	".....	".....	4	38 40
100904	P. T. S.....	".....	11	Hugh Lanteigne.....	Caraquet.....	4	39 40
100297	Palma.....	".....	13	Amedee Ache.....	Lameque.....	4	41 40
100776	Patrick.....	".....	11	P. Rive.....	Caraquet.....	3	32 30
103778	Pelican.....	".....	13	Wm. Fruing & Co.....	Shippegan.....	3	34 30
103674	Petrel.....	".....	12	".....	".....	3	33 30
116974	Providence.....	".....	18	Michel Lanteigne.....	Caraquet.....	4	46 40
96740	Providence.....	".....	13	T. Le Bouthillier.....	".....	5	48 50
72076	Providence.....	".....	12	Wm. Fruing & Co.....	Shippegan.....	5	47 50

SESSIONAL PAPER No. 22

List of Vessels which received Fishing Bounty, &c.—New Brunswick—*Con.*GLOUCESTER 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.
96732	Providence	Chatham.....	11	Wm. Fruing & Co.	Shippegan.....	5	46 50
100775	Redgauntlet.....	"	11	P. Rive.....	Caraget.....	3	32 30
100952	Replevin	"	10	C. Robin, Collas Co.	"	3	31 30
103078	Reward	"	13	Jas. De Grace	Shippegan.....	5	48 50
97191	Rita	"	12	C. Robin, Collas Co.	Caraget.....	4	40 40
111470	River Branch.....	"	11	Wm. Fruing & Co.	Shippegan.....	4	39 40
103946	Robin	"	12	C. Robin, Collas Co.	Caraget.....	4	40 40
103587	Romulus	"	18	W. S. Loggie Co.	Chatham.....	5	53 50
92404	Rosa	"	17	Fabien O. Ache	Lameque.....	4	45 40
100908	Rosalie	"	10	P. Rive.....	Caraget.....	2	24 20
100773	Rupert	"	12	"	"	4	40 40
74401	Sara	"	11	Wm. Doucet.....	"	4	39 40
100907	Sarah	"	10	F. T. B. Young	"	3	31 30
103010	Sarah B.....	"	10	A. S. Lanteigne.....	"	5	45 50
117190	Saturn	"	10	D. Blanchard.....	Mizonette	5	45 50
103584	Saxon	"	13	P. Rive.....	Caraget.....	4	41 40
100959	Sea Bird.....	"	10	W. S. Loggie Co.	Chatham.....	4	38 40
100914	Sea Flower.....	"	11	C. Robin, Collas Co.	Caraget.....	3	32 30
100901	Sea Flower.....	"	12	F. T. B. Young.....	"	4	40 40
96731	Sea Star.....	"	13	Joseph Savoy.....	Shippegan.....	4	41 40
103961	Silver Moon.....	"	14	W. S. Loggie Co.	Chatham.....	4	42 40
100788	Sir Charles.....	"	11	F. T. B. Young	Caraget.....	3	32 30
100963	Stanley	"	10	P. Rive.....	"	2	24 20
103087	Stanley.....	"	10	Frank Baudin.....	Miscou.....	5	45 50
103767	Stella Maris.....	"	19	C. Robin, Collas Co.	Caraget.....	4	47 40
111845	Superior	"	14	"	"	4	42 40
103772	Surprise.....	"	10	Isaie Godin.....	Mizonette	3	31 30
103947	Swallow.....	"	13	C. Robin, Collas Co.	Caraget.....	4	41 40
103006	Swallow.....	"	11	Wm. Fruing & Co.	Shippegan.....	4	39 40
103762	Swan	"	14	"	"	6	56 60
100986	Swift	"	11	F. J. Chiasson.....	Isld. River.....	5	46 50
116473	St. Ann.....	"	14	Onesime Chiasson.....	Lameque.....	4	42 40
116972	St. André.....	"	15	Andre A. Ache.....	"	4	43 40
111469	St. John	"	13	John Aché.....	"	4	41 40
112167	St. Joseph.....	"	10	Raphael Gionet.....	Caraget.....	4	38 40
103008	St. Joseph.....	"	12	Adolphe Aché.....	Lameque.....	5	47 50
107776	St. Peter.....	"	12	"	"	5	40 40
117187	St. Anne.....	"	13	Jean P. Noel.....	"	5	48 50
117189	Ste. Cecelia.....	"	13	Gelase Aché.....	L. Lameque.....	5	48 50
122051	Ste. Julie.....	"	12	Octave P. Noel.....	Lameque.....	5	47 50
100777	Teutonic	"	11	W. S. Loggie Co.	Chatham.....	5	46 50
96738	Three Brothers.....	"	12	Jno. S. Albert.....	Caraget.....	4	40 40
117184	Three Brothers.....	"	15	D. Chiasson.....	Abraham Village	5	50 50
100918	Tickler	"	12	C. Robin, Collas Co.	Caraget.....	3	33 30
112159	United Empire.....	"	17	F. T. B. Young.....	"	4	45 40
103285	Valkyrie.....	"	12	P. Rive.....	"	4	40 40
103775	Victoria.....	"	16	W. S. Loggie Co.	Chatham.....	5	51 50
117183	Vina.....	"	14	Jacques Noel.....	Lameque.....	4	42 40
100995	Voltaire.....	"	10	P. Rive.....	Caraget.....	3	31 30
100966	Von Moltke.....	"	11	Peter J. Frigot.....	"	4	39 40
103588	Vulture.....	"	13	W. S. Loggie Co.	Chatham.....	4	41 40
100953	White Wings.....	"	10	F. T. B. Young.....	Caraget.....	4	38 40
100973	World's Fair.....	"	11	"	"	3	32 30
103079	Wren	"	11	Wm. Fruing & Co.	Shippegan.....	4	39 40
100920	Zephyr.....	"	12	C. Robin, Collas Co.	Caraget.....	4	40 40

KENT COUNTY.

116476	Mary Beatrice.....	Chatham..	10	Julien Gionet.....	Buctouche	3	31 30
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7-8 EDWARD VII., A. 1908

List of Vessels which received Fishing Bounty, &c.—New Brunswick—*Con.*

NORTHUMBERLAND COUNTY.

Official Number.	Names of Vessel.	Port of Registry.	Tonnage.	Name of Owner or Managing Owner.	Residence.	No. of Crew paid.	Amount of Bounty Paid. \$ cts.
96725	Bessie T.	Chatham.....	10	Donald Loggie.	Burnt Church...	2	24 20
100969	John Bull.	"	10	Henry Albert.	Lower Neguac...	3	31 30
88664	Lizzie D.	"	17	Beloni Harvey.....	"	5	52 50
92420	Mary Louise.	"	13	Donald Loggie.....	Burnt Church...	3	34 30

RESTIGOUCHE COUNTY.

94959	Winnie G. S.	Lunenburg.	26	Donald McGregor....	Dalhousie.....	4	54 40
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ST. JOHN COUNTY.

94698	Carrie H.	St. John.....	20	W. J. Wilson.	Lorneville.....	5	55 50
75757	Etta	Yarmouth.....	17	James McAfee.....	"	5	52 50
100156	Hustler.....	St. John.....	44	A. Thompson.....	Dipper Hbr....	3	65 30
77783	Lost Heir.....	Port Medway...	15	R. Maguire, sr.....	St. John	4	43 40
85442	Mystery.....	St. John.....	14	Fred'k Thompson....	Chance Hbr....	4	42 40
103704	Whisper.....	Yarmouth.....	31	Chas. Harkins	Dipper Hbr....	4	59 40

PROVINCE OF PRINCE EDWARD ISLAND.

KING'S COUNTY.

71302	Alice.....	Charlottetown..	10	Jos. Tiernay	Souris.....	3	31 30
100445	Carrie O.	Canso	12	Edw'd Colbert.....	Beach Point ..	3	33 30
116294	Charlotte S.	Charlottetown..	14	Reuben Penny	MurrayHbr.,Sth	2	28 20
66679	Diploma	Yarmouth.....	62	John Dicks.	Georgetown....	3	83 30
75904	Empress	Charlottetown..	26	John Gosbee	Murray River..	4	54 40
116308	Francis D. Cook...	"	47	Reuben Cohoon....	Beach Point....	5	82 50
122081	Frank	"	10	J. M. Cheverie....	Souris.....	5	45 50
107759	Hustler.....	"	13	L. McNeill.....	Beach Point....	6	55 60
100696	Marion Emerson...	Pictou.....	30	Wallace White.....	"	4	58 40
113022	Miantonomah....	Charlottetown..	72	Edward Dicks	Georgetown....	6	114 60
107751	Minnie Laura....	"	31	Joseph White.....	Beach Point....	2	45 20
107985	Muriel	Shelburne	25	Silas Sencabaugh....	"	5	60 50
96770	O. L. B.	Pt. Hawkesbury	12	Chas. Gillam	Souris.....	3	33 30
116296	Outlook.....	Charlottetown..	21	Hugh Jackson.	Beach Point....	4	49 40
112125	Pearl.....	Lunenburg	14	Jno. A. McKenzie....	"	4	42 40
64869	Sarah L. Oxner....	Halifax.....	34	Edward Delorie....	Georgetown....	3	55 30
107770	Success.	Charlottetown..	15	Robert McKenzie....	CableHead West	2	29 20

PRINCE COUNTY.

103279	Alice Maud.....	Chatham.....	10	F. Arseneault	Tignish.....	4	38 40
103507	Annie.....	Halifax.....	16	Joshua Hutt	Alberton.....	3	37 30
107758	Daisy.....	Charlottetown..	13	Daniel Fraser.....	"	5	48 50
103592	Rosamond.....	"	18	D. O. Champion....	Baltic.....	4	46 40
94992	Sarah P. Ayer....	"	64	John Champion.....	Alberton.....	10	135 00
103193	Stattle.....	Halifax.....	11	Alfred Genoit.....	Alberton.....	4	39 40
107760	Western Prince ..	Charlottetown..	10	Wallace Richards.	"	2	24 20

SESSIONAL PAPER No. 22

List of Vessels which received Fishing Bounty, &c.—Prince Edward Island—*Con.*

QUEEN'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.
92479	Fanny.....	Charlottetown...	26	Joseph Gallant.....	Rusticoville.....	12	111 20
107763	Guinea.....	"	10	Boyce Harding.....	French River...	4	38 40
100580	Maggie E. C.	Lunenburg.....	20	Jas. H. McLeod.....	"	5	55 50
100474	R. Beatrice.....	Charlottetown...	19	J. Delaney,	"	4	47 50
122082	Sea View	"	13	Stanford Pickering...	Sea view	2	27 20
42745	Surprise	"	18	Frank Pidgeon.....	French River...	5	53 50
75895	Two Brothers	"	26	Nectaire Peters.....	North Rustico .	12	111 20
88518	W. F. Elizabeth...	Sydney.....	10	Thos. Doyle	"	5	45 50

PROVINCE OF QUEBEC.

GASPE COUNTY.

103318	Little Heir.....	Pt. Hawkesbury	19	Tim Larade.....	Amherst.	5	54 50
88464	Mary E.....	Arichat.....	10	Nectaire Boudreau...	"	5	45 50
85400	Minnie M.....	Magdalen Isld..	13	Honoré Cormier	"	4	41 40
85399	Minnie May.....	"	10	Wm. Boudreau.....	"	4	38 40
111430	Shamrock.....	Halifax.....	23	Alfred Vigneau	"	4	51 40
94675	Success	"	16	R. J. Leslie & Co.	"	4	44 40

SAGUENAY COUNTY.

103060	Edith M.....	Quebec.	20	Zoel Jomphe.....	Seven Islds	5	55 50
75445	Phoenix.....	Gaspé.....	28	Ulric Gagné.....	Caribou Islds...	2	42 20

APPENDIX No. 2.

NOVA SCOTIA.

District No. 1—Comprising the four counties of the Island of Cape Breton.

Inspector A. C. Bertram, North Sydney.

District No. 2—Comprising the counties of Cumberland, Colchester, Pictou, Antigonish, Guysborough, Halifax and Hants.

Inspector Robert Hockin, Pictou.

District No. 3—Comprising the counties of King's, Annapolis, Digby, Yarmouth, Shelburne, Queen's and Lunenburg.

Inspector A. C. Robertson, Barrington Passage.

DISTRICT No. 1.

NORTH SYDNEY, C.B., February 25, 1907.

To the Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit herewith my report of the fisheries of the Island of Cape Breton for 1906, being my twenty-second annual report.

Accompanying this report are the fishery statistics, which give in detail the full operations of the industry for the year, including quantities and kinds of fish taken, values of the products and materials engaged therein, also the number of people employed.

I regret to have to report a decrease in total value, compared with the year 1905, of \$67,380. In the six leading commercial branches, namely, cod, lobsters, mackerel, salmon, herring and haddock. Cod and mackerel alone give an increase in value for the year. In each of the other four branches there were decreases. The following tabulated statement will give at a glance the extent of the increases and decreases.

	1905.	1906.	Increase.	Decrease.
	\$	\$	\$	\$
Mackerel.....	318,174	341,393	23,219	
Cod	266,126	287,172	21,046	
Lobsters	369,101	294,336		74,765
Herring.....	122,849	98,800		24,048
Haddock	97,929	90,736		7,193
Salmon.....	28,840	27,092		1,748

In order to give at a glance the counties which have contributed to the increases and decreases I give the following tabulated statement. It will be observed that the greatest decrease \$54,271, has taken place in the mining and manufacturing county of Cape Breton, caused by the drain on the fishing districts of men to work in the coal mines and the two large iron and steel industries within the county. The fact that at

SESSIONAL PAPER No. 22

the time this report is being written the Dominion Coal Co., alone, is in need of at least 500 more men shows why there is such a drain for labour on the other districts :—

County.	Value.		Increase.	Decrease.
	1905.	1906.		
	\$	\$	\$	\$
Cape Breton.	341,314	287,043	.....	54,271
Inverness	313,557	312,983	.....	574
Richmond	526,196	531,305	5,109	
Victoria.....	157,811	140,167	.....	17,644

LOBSTERS.

The greatest decrease has taken place in lobsters. In my preliminary report I predicted that the year's statistics would show a marked decrease in lobsters. While lobsters were found plentiful at the beginning of the fishing season, they soon became scarce, to such an extent that before the middle of the fishing season had arrived, fishermen began to abandon this branch and engage in other fishing. The increased price paid for lobsters by packers, who had contracted at an advanced price for the disposal of their pack to wholesale dealers, could not induce the fishermen to continue to the end of the season, so scarce and small the lobsters became. On my visits to canneries, I asked packers and fishermen if they could assign reasons for the scarcity of lobsters, and the answers to my questions were so conflicting that it left the impression on my mind that neither packers nor fishermen could assign any plausible reason. Few of them, however, would acknowledge that overfishing was the cause of the scarcity of lobsters, as in the previous season they were as plentiful as usual up to the close. Climatic conditions were not favourable for this particular branch of the industry. The early part of the Cape Breton fishing season was characterized by prevailing easterly winds, frequently heavy gales, which apparently caused those shell-fish to seek the protection afforded by deep water. A significant feature, however, of this particular fishery was the abundance in which lobsters were found in the Western Coast of Nova Scotia and in the lobster bearing districts of New Brunswick and Prince Edward Island at the time they were so scarce on the Cape Breton coast. This would indicate that lobsters were more of a migratory fish than they are generally credited with being. Many are of the opinion that this country should have a larger number of hatcheries, and that the lobster bearing grounds should be stocked yearly by fry from those hatcheries. I favour restriction of the fishery in preference to stocking of ocean waters by artificial means. Each lobster lays thousands of eggs, most of which hatch, but a small percentage live to grow up. This is not the fault of the mother, for she carries them about with her for nearly a year, and with admirable instinct guards them till the young are set free. Her duty is done for they must then shift for themselves. Though hardly larger than mosquitoes, being about one-third of an inch long, the little ones leave their parents on the bottom and swim toward the light, to the surface, where from one to two months, if fortune favours them, they lead a precarious roving life. The open sea is a poor nursery for such weaklings, which become exposed to every storm and the prey of numberless hungry sea scavengers. Out of a brood of, say, 10,000, possibly not more than one and a half per cent reach maturity, or live to end their career in boiler or on red hot coal. The same elements of the sea, the same scavengers, would be as fatal to the artificial, as to natural brood. It is for this reason I favour restrictive regulations, vigorously enforced.

7-8 EDWARD VII., A. 1908

COD.

The increase in the value of the cod catch of \$21,046, over the previous year is not large, yet it is a pleasing feature of the year's operations. This fish being the leading commercial fish, is more generally prosecuted than any other branch, has a longer season, and so far as maritime waters are concerned never fail, the supply keeping up. I do not think that even with improved methods in the capture of this fish, the supply will diminish. Of course, scarcity of bait, and the dog-fish pest are obstacles cod fishermen have to contend with, but still this fishery is the most profitable to the average fisherman. The fish-traps are becoming numerous in certain districts. The reason of this change from hand line and baited trawl is the scarcity of bait in mid-summer. While in some districts fishermen have taken advantage of the government's generous assistance for the establishment of bait freezers, in other districts fishermen have not done so. Indifference and jealousy among fishermen in certain localities are the reasons there are not more freezers, and established freezers in a few cases are not properly utilized. A freezer with a capacity of 100 tons has just been completed at North Sydney, and good results may be expected from it. Abundance of herring in the spring is available, and at certain seasons squid. North Sydney is becoming year by year a fishing centre. United States and French schooners call at this port for bait and ice. Last year two steam-beam-trawlers came to this port from France, and engaged in beam-trawl fishing on the outside banks. The sending out of those two trawlers from France to this port was an experiment, and an agent has lately arrived and reports that there are fifteen of those trawlers coming out in May. I have made inquiries and find that one of the trawlers last year paid \$1,600 and \$3,500 respectively at this port for supplies and coal. I understand that the agent is now corresponding with the Customs Dept. to have supplies come in bond. With the bounty of \$2, per quintal paid by the French government, and the facilities for prosecuting the industry in our ports, and their proximity to productive cod banks would give French fishermen an advantage over our Canadian fishermen. It seems therefore that the privilege of allowing those foreigners to take aboard dutiable goods from bonded warehouses might be withheld, if legal to do so. Nevertheless a large proportion of supplies would require to be purchased by them at this port.

MACKEREL.

This important commercial fish gives a total increased value for the year over 1905 of \$23,219. This increase is made up in the counties of Victoria, \$13,095; Richmond, \$18,222; and Cape Breton, \$4,600, a decrease of \$12,699, occurring in the county of Inverness. In the autumn of 1905, mackerel schools on their way south from the Magdalene Islands and North Bay, instead of following as usual the southern coast of the island, took the north western coast of Inverness County, passing through the Strait of Canso. The fishermen on the coast of Inverness were not prepared for the appearance of those large schools. Many schools had thus passed before they became aware of the presence of large fat mackerel in abundance. However, the fact became known, and with baited hook and a few gill-nets large numbers of large fat mackerel were captured. Last season, however, found the fishermen better prepared, but mackerel took their accustomed course, passing as in former years on the south eastern coast of Cape Breton, hence the increased catch of this valuable fish would be greater each season if our fishermen would equip themselves with better gear and pursue this fishery with more industry. The natural northern home of those fish, and where they spawn, are the waters of the North Bay and Magdalene Islands. Beginning with August, they begin to move south, but the large schools do not leave for the south before the end of September and first of October. When on the move, if the weather is fine they keep well inshore, but in stormy weather, particularly during easterly and northerly gales, they keep out into deep water, and are thus lost to shore fishermen. The destructive agency is the American purse-seine in the spring season when mackerel are on their way to the spawning grounds north from the south. Our Canadian fisher-

SESSIONAL PAPER No. 22

men have practically abandoned the purse-seine since their exclusion from fishing inside the three mile limit. I beg to recommend that Canadian fishermen be allowed to use the purse-seine inside the three mile limit after August 1st. To exclude our fishermen from the use of the purse-seine in their own waters after the spawning season is over, when American fishermen are enabled to follow mackerel schools with their destructive methods from Cape Hatteras to the North bay and Magdalene islands, (outside of Canadian waters of course), spawning grounds and in the spawning season, seems to me to be unfair to our Canadian fishermen. I beg here to recommend the amending of this particular Order in Council so as to allow the use of the purse-seine by Canada's fishermen inside the three mile limit after August 1st of each year.

SALMON.

This branch shows a decrease in value of \$1,748, compared with that of the previous year. Weather conditions affect this fish probably more than any other. Seldom do gill-nets do well in stormy weather. Those nets are connected to the shore by a leader, and if the weather is blustery, salmon remain in deep water and do not follow the shore line as they do in calm weather. For instance, on the Margaree shore of Inverness, the gill-nets did poorly during stormy weather, while those fish kept the channel from the sea and entered Margaree river in greater numbers than for the past twenty-five years. Thus while gill-net fishermen on the coast did not do well, the gill-nets inside in the estuaries, or tidal waters and anglers up the rivers did exceptionally well. The habits of those fish are not very well understood even by those who have been engaged in salmon fishing all their lives. Salmon live alternately in the sea and in the river where they were produced. But at sea their wanderings are very restricted. Salmon does not travel far from the mouth of the river in which he was born. This is the rule. But there are exceptions. Here is a specified case. Two salmon, marked, were set at liberty in the same river and were recaptured in the sea three and two years later, but 372 miles and 186 miles further north. Doubtless these two would never have regained their natal stream. Nevertheless the rule exists that the salmon born in a given river returns thither, and when at sea remain near the shore, and not far from the river's mouth. Salmon rivers should be vigorously protected, particularly in the spawning season. I believe expenditure in protecting rivers bring forth greater fruit than expenditure in artificial breeding, particularly where hatchery breeding and stocking of rivers with delicate salmon fry is not properly attended to, as is too often the case.

HERRING.

The total value of the herring yield for the year 1906 was \$98,880, (fresh and salted), a decrease over the previous year of \$24,048. The year 1905 was an exceptionally good one for this branch of the fishery, as in 1904 the value of the total catch in Cape Breton was \$86,745, against \$122,849 in 1905. The county of Cape Breton made up the increase in 1905, and of course the decrease in 1906. Those fish enter our bays and harbours in large schools in the month of May and the first days in June, or as soon as the ice disappears. They come from the sea to our bays and harbours to spawn. Dogfish appear to be a greater enemy of herring than any other fish, as those fish disappear from in-shore as soon as dogfish make their appearance. There is no doubt dogfish is the cause of the disappearance, during the past dozen or more years, from our inshore of the mid-summer herring schools which were of such value to our people. In former reports I have pointed this out. That some of those large fat fish are still in haunts in Cape Breton waters is evident. For instance, some of the fishermen of Grand Narrows last autumn came into possession of one or two nets of large sized mesh, used formerly in Sydney Harbour for mid-summer herring. They set these nets in the month of December in the upper part of Bras d'Or lakes, with the result that large fat herring were caught, apparently the same class of herring as were taken formerly in mid-summer, or before dogfish became so numerous on our coast. It may

7-8 EDWARD VII., A. 1908

be that those excellent food fish are in sufficient numbers in the Bras d'Or lake waters to warrant a greater effort for their capture. No doubt nets of a larger mesh than those used to catch small sized herring will be purchased by some local fishermen in the Grand Narrows district for the purpose of catching those fish if they are there in paying numbers. For bait purposes the spring herring fishery is invaluable. They are sought after not only by local people but by foreign fishing vessels for bait purposes. I have endeavoured to protect the immediate spawning grounds in this harbour from gill-nets and seines.

HADDOCK.

There is a small decrease in the total value of haddock of \$7,193. The value of the total catch for the year, dried, fresh, and cured (finnan haddies), amounted to \$90,736. It is difficult to get at the exact figures, no fishermen, in many cases, in giving returns include them with the cod catch. The salting and drying process is the same as in the case of cod, and nearly every quintal have a few haddock in them. Trap-nets pick up more haddock and pollock than any other kind of fish. Those fish move about in the early part of the season in schools and as they follow the shore lines enter the traps. It seems to me that factories for the conversion of haddock into finnan haddies should bring good returns in Cape Breton to investors. The only district in Cape Breton where those fish are now converted into finnan haddies is that of Isle Madame. It seems to me that a factory could be operated with great profit at Ingonish. The market for finnan haddies is unlimited, particularly in western Canada.

OTHER BRANCHES.

The total value of all other kinds of fish, (of the fin and shell species) taken in the Cape Breton district during the year was \$131,963. The total value of these fish in 1905 was \$135,859, a decrease of \$3,890. It is difficult to get accurate statistics of those minor kinds of fish, as a proper record of the respective catches are not kept, as is the case in the leading commercial branches.

The oyster statistics gives an increase over the previous year. The total value of oysters for 1906 was \$6,222, against \$2,650 in 1905, an increase in value of \$3,572. The increased price in 1906 per barrel, I must add, contributed to the total value of the increase over the year of 1905. Cape Breton estuary waters are specially adapted for the propagation of this valuable shell fish, and I think conditions, as they exist to-day, call for some special attention from the department. Certain oyster bearing waters should be cleaned and the grounds re-stocked by young healthy oyster, or 'spat.' At present some of the best oyster bearing grounds are covered by sea weed and the wash from adjacent fields. The result is the beds become 'smothered' by this accumulation of substance with the result that they become, in time, extinct. While oyster bearing districts in other sections of the maritime provinces have received special attention, nothing has yet been done to either assist or preserve the oyster in Cape Breton.

In the fisheries as in every kind of industry improved methods are being employed from year to year. Methods that will enable toilers to prosecute their calling with more profit and less labour should be encouraged by the department. The day is not far distant when the motor-boat will take the place of the ordinary row or sail boat in fishing. For this reason I think the department should amend the Fishing Bounty Regulations so as to permit motor, or gasoline boats, to participate in the Fishing Bounty. For instance a 23 ft. keel boat of 7½ H. P. consumes one gallon of gasoline per hour and a quarter. The gasoline costs about 31c. per gallon. Six men can comfortably fish in a boat of this size. Such a sized motor-boat and of same horse power would cost, fitted for fishing, about \$300. It seems to me that fishermen who encounter such difficulties in reaching the fishing banks in the old fashioned row or sail boat would not hesitate to replace it by the motor-boat. Half the time is lost in an ordinary fishing season in consequence of adverse winds. This drawback could be overcome by the employment of the motor-boat. To encourage fishermen in this improved boat for

SESSIONAL PAPER. No. 22

fishing, the bounty should be extended to owners of such, as well as fishermen who use them.

During the year the conditions of water courses for fish have been improved by the opening of sand beaches and the clearing out of debris from certain rivers. In most cases the upper waters are now more easily reached by the different kinds of fish which seek them to spawn.

I have held a number of fishery courts to hear complaints against alleged offenders. In the majority of cases convictions have been entered, and in three cases only were fines paid. Against four others I have issued warrants of convictions, and in only one case was the convicted jailed. The warrants in the other cases are still in the hands of the constable. I find it most difficult to get local officers to execute warrants. I have asked the provincial authorities to appoint a constable who can be sent into any county of the province to execute papers, and hope by this means to punish offenders of the fishery laws. In the Margaree district is the inclination most in evidence to violate the regulations. To stop the nefarious practice the assistance of outside patrol officers are needed; the local officers are useless, and their employment a waste of the country's resources. In other districts the regulations were well observed.

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.

INVERNESS COUNTY.

Overseer D. F. McLean, of Port Hood, reported an increase of catch during the year in the following branches:—salmon, herring, haddock, halibut, trout, smelts, and squid, and a decrease in lobsters, cod, hake and eels. Dogfish continue to be troublesome to fishermen. About one-fourth of the year's catch was used for home consumption, the remainder exported.

Overseer Wm. AuCoin, of Cheticamp, reports gulf free of ice 20th April, and beginning of fishery operations at that date. The first fish taken were herring in gill-nets. Those fish were found unusually abundant and of good quality. Herring entered largely into home consumption and for lobster bait. The refrigerator at Eastern Harbour was utilized with much benefit to fishermen. The lobster fishery was poor in quality and in quantity. The lobster season's operations resulted in a loss to packers. Cod, hake, and haddock fishing resulted in an average catch. 'Launce' or sand eel caused the cod family to keep well in shore. The small fishing craft, as a result, did well. Dogfish were less troublesome than during the past few years. Many are being captured by local fishermen. Salmon were abundant. Not for many years were so many taken in gill-nets on the Cheticamp coast. About ninety per cent of the season's catch was exported, the ten per cent used for home consumption. The regulations were splendidly observed during the season, the camps in Little River now add to efficient protection of that river.

Overseer A. A. Chisholm, of Margaree Forks, reports a decreased catch as a result of the season's operations, although the fishery was vigorously operated and the number of persons engaged larger than the previous year. Blustery weather, scarcity of bait and presence of dogfish were the chief causes of decrease in catch. Cod was about an average, while mackerel was thirty per cent below 1905. Herring, halibut, hake and haddock were an average catch. The lobster fishery was below the previous year. The salmon fishery on the coast was barely an average catch, but in the tidal waters of the Margaree, gill-net fishermen did well, and for surface fly fishing, sportsmen have not done so well for thirty years.

Overseer Peter Gillies, of South West Port Hood, reports a short pack of lobsters. They were fairly plentiful at the beginning of the season, but became scarce towards end of May. The cause he attributes to unfavourable weather conditions. Cod were plentiful, but fishermen do not fish now as vigorously as formerly; prefer engaging in mining. Salmon were more plentiful than for thirty years. Regulations were well observed.

Overseer Albert J. Hart, of North East Margaree, reports that salmon were very plentiful in the Margaree during the season and more of those fish were captured by surface fly fishermen than for the past number of years. He estimates that about 4,000 pounds were taken by fly in his section of the river, and about 2,000 pounds of trout. A number of boats used in illegal fishing were confiscated. The offenders could not be recognized as they were always in gangs and masked. He considers the guardians were as vigilant as they could be expected to be, considering the remuneration they receive.

Overseer Geo. P. McIntosh, of Pleasant Bay, (an officer of a few months) reports a decrease in pack of lobsters in the Pleasant Bay district. Herring were plentiful, but mackerel were scarce, with the result of a decrease in catch. Dogfish were very troublesome during the fishing season.

SESSIONAL PAPER No. 22

VICTORIA COUNTY.

Overseer W. R. Moffatt, of Dingwall, reports a decrease in salmon, cod, and haddock fishery for the past season. He attributes scarcity of bait and stormy weather as the cause of the shortage. The mackerel fishery was much better than in the previous year. There was an increase in catch of herring. Dogfish continues to be a menace, and he recommends some means for their depletion.

Overseer D. P. Montgomery, of Neil's Harbour, reports a poor catch of commercial fish in early part of the season, but in autumn months those fish struck inshore in large numbers and resulted in an average season's catch. The trap was successful in making a few good hauls of mackerel, haddock, and pollock. Herring appeared plentiful, but fishermen are discouraged in setting gill-nets in consequence of injury to nets and fish which get into them by dogfish. The lobster canning industry was a third below that of the previous year.

Overseer, Alex. Morrison, of Wreck Cove, reports a decrease in lobster pack and herring fishery, an average catch of cod, and an increase in haddock, pollock and mackerel. The trap nets he credits to the increased catch. In salmon, the increase is fifty per cent over the previous year. Excepting that used for home consumption, commercial fish were exported to Canadian markets.

Overseer Duncan Gillis, of Baddeck, reports a decrease in herring, cod, haddock, and gaspereaux, and an increase in salmon, trout and lobsters. Cause of decrease he attributes to their scarcity in the Bras d'Or waters. The Sydneys are the principal markets for fish caught in the Bras d'Or waters.

CAPE BRETON COUNTY.

Overseer A. R. Forbes, of North Sydney, reports a marked decrease for the season in the catch of cod, haddock and lobsters, and an increase in herring. The season was generally stormy which interfered considerably with fishing operations, particularly the lobster fishery. This shell fish did not appear as plentiful as in the previous season. Unfavourable weather, scarcity of bait, and dogfish were the main causes for decrease.

Overseer H. C. LeVatte, of Louisburg, reports a decrease in the lobster pack as well as in the export of live lobsters. Unfavourable weather and scarcity of lobsters were the causes for those decreases. While scarcity of bait frequent gales, and dogfish interfered considerably with the operation of the industry, still the fishermen had a fair season in consequence of the improved prices ruling. One marked feature in his district was the decreased catch in mackerel, which apparently kept off shore on their return to their southern haunts.

Overseer Angus McLeod, of Port Morien, (a new officer) reports a decrease in the lobster packing industry. Those shell fish were scarce and storms in the early part of the season prevented fishermen from visiting their traps frequently during the season. Dogfish were very troublesome in midsummer and also contributed to the decrease in catch of commercial fish. The prices of all kinds were in advance of previous years.

Overseer John McLean, of Gubarus, reports an increase in the catch of herring in his district, also slight increase in mackerel, and cod, but a decrease in the lobster pack and in live lobster export. In the first part of the season lobsters appeared plentiful, but during prevailing high winds lobsters became scarce until towards end of the season. It did not pay either packer or fishermen to continue to the end, and the canneries were closed down.

Overseer M. R. McInnes, of Amaguadee Pond, (Grand Narrows and East Bay districts) reports a decrease in cod and herring, the only two branches of commercial fish caught in his district. The early formation of ice on the Bras d'Or lakes was the

7-8 EDWARD VII., A. 1908

cause of the decrease in the two branches. The ice in the spring broke up and kept drifting, which precluded fishermen from setting gill-nets and engaging in hand-line cod fishing. Some live lobster were taken in the Big lake and exported. Local markets were supplied with eighty per cent of the cod and herring.

Overseer Murdock McLean, of Leitches Creek, reports an increase in the spring herring catch, which was largely purchased by St. Pierre, United States, and western Nova Scotia vessels. Those fish strike into the Western Arm of Sydney harbour and are used largely for bait by the foreign and local fishermen. Ten per cent are used for local consumption. There are very few of other kinds of fish caught in his particular district.

Overseer Timothy Sullivan, of Little Bras d'Or, reports nearly an average catch of lobsters in the three factories in his district and a decreased catch in cod. Other branches were about an average catch. The coal mines now employing all available labour at good wages draw people from the fishing industry.

RICHMOND COUNTY.

Overseer D. R. Boyle, of West Arichat, reports a fair average in the total value of the industry in his district. While some branches show a decrease others show an increase, and with the advance in prices give the fishermen a fairly prosperous season. In the number of fishing vessels employed there was an increase of four, and an increase of fourteen fishermen. In boats, there was a decrease of forty-two, and in fishermen of sixty-one. There has been an increase in the value of fishermen's gear of about \$1,000. In herring the statistics show an increase of 393 barrels of salt-herring, and in mackerel of 1,200 barrels. A decrease of 1,296 cwt. in dry cod and an increase of 753 cwt. in dry haddock and 62,000 lb. increase in finnan haddies. A decrease of 233,000 lb. in fresh haddock, and a decrease of 454 cwt. in dry pollock. The statistics of the lobster industry show a decrease of 21,000 lb. in the preserved article, and an increase of 501 cwt. in fresh or live lobsters for export. Of the above fish there was shipped to Canso, Mulgrave, and elsewhere, 255,000 lb. cod, 23,500 lb. pollock, and 6,000 hake, aggregating in value \$194,499. Canned and fresh lobsters were shipped to the United States; dry cod and haddock to Halifax, and herring and mackerel to P. E. Island. Fresh mackerel, eels, smelts, to Boston and New York; finnan and smoked haddock to Montreal and North Western Canada. The decrease of lobsters is becoming more evident year after year in his district and something should be done in re-stocking the grounds from hatcheries, otherwise the industry will not be worth prosecuting.

Overseer Arthur Brymer, of Lower L'Ardoise, reports a fairly prosperous season. An increase in total value of \$20,000 over the previous year. A notable increase of mackerel occurred in St Peter's bay. There were also increases in catch of herring, cod, and haddock, in his district over the previous year. All other branches of the fisheries were an average catch. Herring were plentiful, but owing to the enormous number of dogfish, fishermen were discouraged from setting gill-nets for those fish. There was a decrease in the catch of lobsters.

Overseer Archibald Morrison, of River Bourgeois, reports a decrease in lobsters, cod and mackerel, the three leading commercial branches of the industry. The value of appliances engaged in the fishery also decreased during the season in his district. Owing to the demand for labour, fishing vessel owners now find it difficult to obtain services of crews for their vessels. The result is that the vessels are engaged at other employments. The decrease in number of vessels he accounts for the decrease in catch of cod and mackerel. Cod and mackerel were marketed in Halifax. Lobsters were exported.

SESSIONAL PAPER No. 22

DISTRICT No. 2.

ANNUAL REPORT OF THE FISHERIES OF DISTRICT No. 2, NOVA SCOTIA,
COMPRISING THE COUNTIES OF ANTIGONISH, COLCHESTER, CUM-
BERLAND, GUYSBOROUGH, HALIFAX, HANTS AND PICTOU.

To the Dominion Commission of Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report of the fisheries of District No. 2, Nova Scotia, together with tabulated returns of statistics, also schedules showing the increase or decrease of the catch of each kind of fish.

The estimated value of all the fish taken in the district during the present season is \$2,200,087, which is about ten per cent less than the estimated value of the catch of the year 1905.

Of the deep sea-fishes there is a decrease with catch of codfish of about 5 per cent, an increase of 5 per cent in the catch of haddock, a decrease of 33 per cent in the catch of hake, an increase of 14 per cent in the catch of pollock, and a very large decrease of 75 per cent in catch of halibut.

Of the anadromous fishes there is a satisfactory increase in the catch of salmon of about 32 per cent in the whole district.

In the counties bordering on the Straits of Northumberland the increase was 27 per cent. In the counties of Halifax and Guysborough on the Atlantic coast the increase was 46 per cent, and in the counties bordering on the Bay of Fundy there was an increase of 17 per cent.

During the autumn months the condition of the rivers was on the whole favourable to the salmon fishery during September and October, the rivers were so low that the fish could not ascend for spawning purposes. While early in November copious rains filled the rivers and they remained full during the period when the fish deposit their eggs, so that poachers could not spear them when they did ascend.

SHAD.

This fishery is in the same unsatisfactory condition reported last year, a very few more barrels were taken, but compared with the catch in former years that of this year is insignificant.

The present close season is from Friday evening at sunset to Monday morning at sunrise, and is altogether inadequate for the preservation of the fishery. There should be a close season restricted to the time when the fish are in the rivers for spawning purposes and to cover all that period, viz., May and June in each year.

The following is a statement of the annual catch in this district since 1889, and it may be said that 95 per cent of all the shad taken in the district are caught in the counties of Cumberland, Colchester and Hants.

	Barrels of shad taken.
1890.....	756
1891.....	1,178
1892.....	1,811
1893.....	1,346
1894.....	981
1895.....	1,208
1896.....	1,090

7-8 EDWARD VII., A. 1908

1897.....	1,382
1898.....	2,777
1899.....	3,208
1900.....	1,375
1901.....	749
1902.....	948
1903.....	2,115
1904.....	644
1905.....	333
1906.....	374

It may be well to repeat here that Overseer J. W. Davison reports that twenty five years ago as many as 5,000 barrels were taken in his division of the county of Colchester alone.

GASPEREAU OR ALEWIVES.

The catch reported last year was the smallest for seventeen years. That of this year is 21 per cent less than last.

The following statement of the annual catch reported since 1889 will show the present state of this fishery.

	Barrels of Alewives taken.
1889.....	7,320
1890.....	5,146
1891.....	4,663
1892.....	3,567
1893.....	4,121
1894.....	5,230
1895.....	4,450
1896.....	4,799
1897.....	2,783
1898.....	3,215
1899.....	2,682
1900.....	3,312
1901.....	2,840
1902.....	3,542
1903.....	3,317
1904.....	2,544
1905.....	2,322
1906.....	1,832

The close season for these fish is the same as for shad—from Friday evening sunset to sunrise Monday morning.

The fish are mostly taken at night and there would be no injury to the fishermen to make the close season from 6 o'clock in the afternoon instead of from sunset—then the guardians could ascertain whether or not the law was obeyed.

Considering the decline of the fishery I think the time has arrived when the close season should be extended from Thursday at six o'clock in the afternoon until 6 o'clock of the following Monday.

HERRING.

The catch is about 40 per cent greater than last year and is the largest reported since 1895.

MACKEREL.

The catch was 20 per cent over that of last year and about 30 per cent over the average catch of the past 18 years.

SESSIONAL PAPER No. 22

HALIBUT.

The quantity of these fish caught varies greatly from year to year. The reported catch of last year was 847,590 lb., that of this year only 176,595 lb., the average annual catch of the past 18 years being about 300,000 lb.

LOBSTERS.

The quantity packed during the season was six per cent less than last year while the quantity sold fresh in shell is about 70 per cent less, the shortage being chiefly from that part of the district west of Halifax.

On the Atlantic coast the shortage in canned lobsters is, I believe, attributable to the boisterous weather which prevailed during the fishing season.

On the Straits of Northumberland there was a slight increase in the quantity packed over that of last year.

EELS

For a number of years more of these fish have been taken than formerly because of improved conditions in transshipments.

FISHWAYS.

A number of fishways are very necessary in this district to enable salmon to overcome obstacles (such as dams built across the river for industrial purposes) and reach their spawning resorts.

One of these is required on a dam on the Lawrencetown river in the county of Halifax, one on the Antigonish branch of the St. Mary's river in the county of Guysborough, one on South river in the county of Antigonish, one on Salmon river in the county of Colchester, one on River John in the county of Pictou, one on the Meanler river in the county of Hants.

Such fishways should be built under official inspection and the builders required to have the structure conform to the plans and specifications furnished, otherwise change will be made in the grades which destroys the effectiveness of the fishway, or the extra trouble necessary to have the lower end well under water will not be taken, and then fish cannot enter the pass. While if the owners have not been duly notified that the hon. the Minister of Marine and Fisheries determines to be necessary for the public interest that a fish pass should exist in the dam, the fishery officers are powerless to require the structure to be built in conformity with the plans and specifications or to require the owner to maintain them in effective condition.

GUARDIANS

During the season seventy guardians have been employed upon the most important rivers in the district whose duty it is to patrol the river a certain number of hours for every dollar they are paid, mostly between sunset and sunrise. They submit reports every week they are on duty of the time they have spent on the river and the place, together with the hours of the day between which the service was performed, and for the service upon the certificate of the local overseer that after inquiry he believes the report to be correct, they are paid.

As one result of this patrol service, quite a number of nets are confiscated for being illegally set, poachers are pursued and arrested.

During the past season 48 persons were summoned for violation of the Fisheries Act, four were convicted by the local overseers on view tried of the offence, three were

7-8 EDWARD VII., A. 1908

tried and convicted by local justices on complaint of fishery officers and forty-one were tried by the inspector acting in his capacity of justice of the peace ex officio for the purposes of the Fisheries Act, and of these, four cases were dismissed and the remainder convicted and various penalties from five to twenty dollars inflicted.

I have the honour to be, sir,

Your obedient servant,

ROBERT HOCKIN,

Inspector of Fisheries.

SESSIONAL PAPER No. 22

DISTRICT No. 3.

ANNUAL REPORT ON THE FISHERIES OF DISTRICT No. 3, COMPRISING THE COUNTIES OF LUNENBURG, QUEEN'S, SHELBURNE, YARMOUTH, DIGBY, ANNAPOLIS AND KING'S.

BARRINGTON PASSAGE, N.S., May 2, 1907.

To the Dominion Commission of Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report for the District No. 3, of Nova Scotia, together with the tabulated statements of the yield and value of the different fisheries for the season of 1906.

The total yield of all the fisheries production compiled from the returns of the different officers is valued at four million and a quarter dollars. Although this quantity is somewhat less than that of the previous catch, yet the result is satisfactory, as prices ruled higher than ever.

The following statement gives the relative importance of the different counties of my division showing the fluctuation from last season :

Counties.	1906.	Increase.	Decrease.
	\$	\$	\$.
Digby.....	1,155,458		158,600
Shelburne.....	1,118,484		55,017
Lunenburg.....	907,570	37,737	
Yarmouth.....	672,601		40,000
Queen's.....	200,169	77,345	
King's.....	157,114	33,713	
Annapolis.....	116,778		66,032

The increase noted in Lunenburg county is not due to line fish, as might be expected from its large fleet of schooners seeking the grand banks, but to improvement in the captures of mackerel, herring and lobsters.

The increase noted in the county of Queen's is ascribed chiefly to the large capture of mackerel off the Liverpool harbour, which was the best for the past twenty years—120,000 mackerel were stopped in one haul by a single trap, while other traps were not far behind. The local fishery overseer states that the catch, as returned by him, is more likely under the mark than overdone.

This improvement must have been general to that whole district. While the mackerel catch for that year is valued at nearly one quarter of a million dollars, the previous one only reached \$36,000.

Notwithstanding the increased prices of dried prepared fish, there seems a falling off in the production of these line fish, in nearly every county of this district, especially Shelburne, Digby and Yarmouth.

The larger number of fishing vessels mentioned in some of the above counties were large boats over ten tons which have been registered in order to secure more bounty. A great many gasoline boats are now used, enabling their owners to return home in better time, and many other facilities which develop with progress.

7-8 EDWARD VII., A. 1908

Fishermen in large fishing centres have a number of different kinds of boats and only use them as needed, perhaps not once in two weeks. They have a seine boat ready to use a seine when a school of fish is noticed. They have also a watch boat which is fastened to the seine on trap to be used when required. As a rule, eight or ten fishermen use in company all the boats on shore near the trap or seine. Sometimes one man may use five or six different boats during the one day. In cases when fishermen go out to sea a number of miles in their boats, there would be two men in a boat. This explains why in some localities there are more boats than men, which would be hard to be understood by the uninitiated.

Although Digby county shows a large falling in the total value of its fisheries, it would be larger still were it not for the good catches of mackerel and herring effected this season, which was the best for years. The bays of Fundy and St. Mary's give Digby county an extensive sea coast and are very valuable fishing grounds.

There are villages in Digby Neck where nearly everybody is engaged in the various fishing industries. At one of these small places, the local officer states that in five weeks, nine trawl boats and six-hand line boats caught over 600,000 lbs. of line fish of cod family. Upon one occasion a man and his young son captured nearly 1,000 lbs. of the cod in a few hours. There are also several weirs effecting large captures of fish. One of them at the head of St. Mary's bay secured 35,000 lbs. of cod besides other fish in three weeks' fishing. These weirs receive no bounty. This fact might partly explain why some counties with larger fleet, perhaps partly idle for want of crews, &c., secure more bounty than Digby with less fish.

The Digby fish are shipped to St. John, Boston, New York, Cuba, &c. A single firm at Centreville does a fish business of about \$100,000 worth per annum, preparing and shipping fish to all parts of the world.

CAPITAL INVESTED IN THE INDUSTRY.

The amount invested in fishing gear and implements does not vary much from year to year, and their total number is about the same. But a better class of crafts are now superceding the old ones. Gasoline power is getting quite common in those fishing crafts, enabling the fishermen to visit certain grounds at great distances and return home the same day. It is an innovation which merits encouragement; not only for saving time but for securing better facilities for the curing of their catches and bringing them to markets.

For the season 1906 no less \$2,277,400 were invested in fishing implements, &c., in this district alone, comprising crafts and gear of all kinds.

The number of persons engaged in the different branches of this industry aggregated 13,542, including persons employed in the sixty lobster canneries of my district.

I have the honour to be, sir,

Your obedient servant,

A. C. ROBERTSON,
Inspector of Fisheries.

APPENDIX No. 2—*Continued.*

FISHERY STATISTICS

NOVA SCOTIA

District No. 1

“ No. 2

“ No. 3

To the above add 255,000 lb. fresh codfish, \$7.650; also 8,500 lb. fresh pollock, \$170; also 6,000 lb. fresh hake, \$120.

To the above add 255,000 lb. fresh codfish, \$7.650; also 8,500 lb. fresh pollock, \$170; also 6,000 lb. fresh hake, \$120.

SESSIONAL PAPER No. 22

RETURN showing the kinds and quantities of Fish and Fish Products in the County of Cape Breton, Province of Nova Scotia for the year 1906.

Districts.	KINDS OF FISH.																				TOTAL VALUE OF ALL FISH.	Number.			
	Mackerel, salted. brls.	LoBSTERS, preserv- ed in cans, lb.	LoBSTERS, fresh in shell, cwt.	Cod, dried, cwt.	Cod, tongues and sunds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alwives or Gas- pereau, brls.	Eels, brls.	Oysters, brls.	Flounders, lb.	Tom-cod or frost fish, lb.	Squid, brls.	Coarse and mixed fish, brls.			Fish oil, gallons.	Fish, as bait, brls.	
<i>Cape Breton County.</i>																									
1	450	50816	1321	2800	.....	.....	100	.....	200	1500	200	30	6000	145	10	.....	.....	.....	10	.....	.....	1200	15	47,171 50
2	150	24000	450	1200	.....	3000	300	.....	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1000	300	.....	21,150 30
3	120	10752	75	950	.....	3000	220	.....	32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	900	200	.....	13,824 30
4	48	36096	165	2650	.....	.....	508	.....	495	3530	280	31	500	35	.....	.....	.....	.....	12	.....	830	57	.....	33,245 61
5	9	17712	.....	800	.....	.....	80	.....	11	100	4000	3	.....	16	.....	.....	.....	.....	.....	.....	365	25	.....	6,203 42
6	.....	.....	.....	520	.....	.....	.....	.....	90	20500	.....	.....	.....	.....	7½	.....	.....	.....	.....	20	294	250	.....	14,111 70
7	35	.....	210	1265	8	.....	130	15	90	8500	.....	.....	.....	.....	.....	.....	.....	.....	20	.....	1100	110	.....	13,189 50
8	26	35808	8000	1880	11	.....	236	20	149	3000	.....	.....	.....	.....	.....	.....	.....	.....	22	.....	1700	150	.....	65,791 00
9	16	.....	.....	3210	.....	400	43	.....	362	1000	600	.....	.....	.....	.....	.....	.....	.....	.....	.....	620	110	.....	31,731 50
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	10	59424	.....	460	.....	300	50	.....	20	1000	.....	.....	300	.....	13	.....	.....	.....	6	.....	185	900	.....	21,237 50
.....	201	1359	56	5700	8200	70	195	68 8700	5500	96	200	195	19,387 00
Totals	864	234608	10122	17994	19 8700	1667	.....	46 1634	43030	6780	37	15000	266 247½	408	261	165	280	232 2518	3468	.....	.....	.....	.....	.....
Values	12960	58652	52110	89970	190	261	5834	115	4902	4303	678	370	750	1064	2475	408	261	165	280	232	2518	3468	.....	287,043 33

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Victoria, Province of Nova Scotia, for the Year 1906.

Number.	DISTRICTS.	KINDS OF FISH.																	TOTAL VALUE OF ALL FISH.	Number.			
		Mackerel, salted, brls.	Lobsters, pre- served in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod, tongues and soms, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Smelts, lb.	Alvewes and Gaspereau, brls.	Eels, brls.	Oysters, brls.	Clams, brls.	Tom-cod or frost fish, lb.			Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.
1	Victoria County.																						
1	Little Narrows (both sides)...	...	...	...	360	...	250	...	1	5	...	2150	4300	...	50	197	...	2350	...	25	75	28	4,862 00
2	Baddeck District .....	...	...	10	53	...	250	...	...	...	...	625	1450	2	12	22	1	100	...	1	30	26	1,523 50
3	Boularderie .....	...	...	...	200	...	...	15	5	40	1150	250	350	...	12	...	...	...	2	20	105	125	2,928 75
4	Englishtown to Cape Dauphin. and vicinity .....	...	...	...	105	...	200	80	20	100	...	50	500	...	9	...	...	...	...	50	230	100	3,281 00
5	North, Little and French rivers and vicinity	60	29280	...	145	...	...	65	...	25	...	...	...	...	...	...	...	...	...	40	65	55	10,187 00
6	Wreck Cove to Smoky Head ..	135	17184	...	125	...	...	245	...	100	...	...	...	...	...	...	...	...	...	35	160	30	9,300 00
7	South Bay to Ingonish	62	7200	...	1950	...	2400	140	1320	...	...	...	...	...	...	...	...	...	...	80	...	1500	29,830 00
8	Middle Head and North Bay ..	150	12720	...	1700	...	...	1310	...	550	...	...	...	...	...	...	...	...	...	40	...	1140	24,272 50
9	Green Cove and New Haven...	130	31464	...	2412	3	...	400	...	160	700	...	...	...	...	...	...	...	55	...	1850	...	25,729 50
10	Dingwall to White Point...	100	10656	...	916	...	...	115	20	200	2320	...	...	...	20	...	...	...	200	...	1000	200	14,478 50
11	Spaulding Brook to Money Point	84	14400	...	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	5,210 00
12	Bay St. Lawrence and vicinity	35	14304	...	370	...	...	90	5	55	...	...	...	...	...	...	...	...	15	...	200	...	7,643 50
	Totals	756	137208	10	8370	3 450	4720	191	2615	4570	3075	6600	2	103	219	1	2450	272	291	3715	3214	...	...
	Values	11340	34302	50	41850	30	16520	477	7845	457	307	330	8	1030	1314	4	73	1088	582	1114	4821	...	140,167 75

* To No. 2 add 11,400 lb. fresh cod, \$342; to this district add \$586 of dog-fish.

RETURN showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., in the County of Inverness, Province of Nova Scotia, for the Year 1906.

DISTRICTS.	FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.						LOBSTER PLANT.				KINDS OF FISH.													
	Vessels.				Boats.		Gill-nets.			Trawls.		Hand Lines.	Canneries.		Traps.		Salmon, fresh, lb.	Salmon, preserved in cans, lb.	Herring, salted, brls.	Herring, fresh, lb.	Mackerel, fresh, lb.	Mackerel, salted, brls.						
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.														
<i>Inverness County.</i>																												
1 Meat Cove to Fishing Cove.	34	340	70	55	2825	1300	...	3	30	70	70	3	2000	6300	3650	15500	400	155	50	64	1
2 Eastern Harbour to Cape Rouge	18	220	1780	78	51	3125	107	158	4740	1327	23	230	390	497	4	1950	10200	4650	17270	...	1000	...	...	...	...	101	2
3 Cheticamp Point and Lake.	2	22	500	8	11	440	21	23	290	390	4	40	58	73	2	1100	4800	1360	5900	...	45	...	...	...	...	30	3
4 Margaret district including Island and River	...	...	...	...	57	1850	80	73	4155	3470	13	320	130	125	2	650	4300	1700	21750	...	120	...	...	...	...	55	4
5 Belle Cote.	...	...	...	...	15	900	53	34	2500	1500	7	200	150	135	1	60	350	200	21100	...	70	...	...	...	...	109	5
6 Donceett's and Delaney's Coves.	...	...	...	...	20	690	35	28	3200	2150	14	425	95	95	1	160	1000	350	26100	...	60	...	...	...	...	50	6
7 Sight Point to Mabou Harbour	30	555	60	52	1125	420	34	230	105	85	1	3000	5000	4000	900	864	192	1700	2700	7
8 Port Hood to Seaside	...	...	...	...	90	1900	130	500	10500	3500	255	1020	170	170	2	2800	10500	6300	...	...	450	2000	...	...	...	44	8
9 Judique to Low Point	1	15	300	4	102	1280	145	140	4200	1400	150	560	170	170	4	2800	12400	7440	2900	...	640	3100	...	...	...	18	9
10 Port Hastings and Hawkesbury	2	23	300	6	31	560	56	46	1380	460	15	60	30	30	...	...	...	330	2160	4800	168	700	130000	...	...	3800	10
11 West Bay to River Dennis.	129	1540	145	115	8300	850	50	150	305	75	255	53000	11
12 Whycocomagh and Lake Ainslie.	35	450	38	60	1100	300	22	90	60	30	1200	12
Totals.	23	280	2880	96	605	13630	940	1164	44315	17067	590	3365	1733	1555	20	14520	55400	29980	113420	6064	3155	538750	132700	...	...	4271	...
Values.	17013	909	14197	5387	15924	64065	...

DISTRICTS.	KINDS OF FISH.													TOTAL VALUE OF ALL FISH.										
	LOBSTERS, preserved in cans, lb.	LOBSTERS, fresh in shell, cwt.	Cod dried cwt.	Cod tongues and sunds, brls.	HADDOCK, fresh, lb.	HADDOCK, dried, cwt.	HADDOCK, dried, cwt.	HAKE sounds, lb.	POLLOCK, cwt.	HALIBUT, lb.	TROUT, lb.	SMELTS, lb.	ALWIVES or GAS- pereau, brls.		EELS, brls.	OYSTERS, brls.	CLAMS, brls.	TOM COD or FROST fish, lb.	SQUID, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	
<i>Inverness County.</i>																								
1 Meat Cove to Fishing Cove	21576		248						210											45		350		11,922 00
2 Eastern Harbour to Cape Rouge.	36216		3985	20		500	185	260	80	1100		2000		30		25		575	1200	1375	2400	300	49,774 50	
3 Cheticamp Point and Lake	12288		510			60	90	300	27	400				180		12		200	200	400	300	200	11,508 50	
4 Margaree district including Island and River.	21792		735	2		85	65			300	1500	15	30	30		50		60	68	145	165	160	15,778 25	
5 Belle Cote.	1200		1200	5		40	45	100	15	1200	500							40	25	150	200	30	12,507 50	
6 Doucet's and Delaney's Coves.	3888		710			25	50		5	580								30	20	130	170	40	10,216 50	
7 Sight Point to Mabou Har- bour.	211936		235		1800		37					1200								190	56		55,976 10	
8 Port Hood to Seaside.	36096		1120		15400	550	1560	200			300	2600		10				10		400	110		24,851 00	
9 Judique to Low Point.	45120		220		2700	80					3000	3400		33				5			220		17,647 00	
10 Port Hastings and Haw- kesbury.		400			240	5				10000		3600		21				1500			55		83,980 20	
11 West Bay to River Deunis			1020											60	750		3400			290	715		17,909 00	
12 Whycoomagh and Lake Ainslie.			60								500			40		35						7	912 50	
Totals.	393712	400	10651	25	10140	1345	2112	800	337	13580	5800	12815	30	404	750	122	3400	2420	1558	3080	4748	730		
Values.	98428	2000	50255	250	304	4707	5280	215	1011	1358	580	640	120	4040	4500	488	102	9680	3116	924	7122	365	312,983 05	

7-8 EDWARD VII., A. 1908

RECAPITULATION.

OF the Yield and Value of the Fisheries of the Island of Cape Breton, for the Year 1906.

Kinds of Fish.		Quantity.	Rate.	Value.	Total Value.
			\$ cts.	\$ cts.	\$ cts.
Salmon, fresh.	Lb.	169,210	0 15	25,381 50	
" preserved in cans.	"	6,604	0 15	990 60	
" smoked.	"	3,600	0 20	720 00	27,092 10
Herring, salted.	Brls.	20,102	4 50	90,459 00	
" fresh.	Lb.	834,162	0 01	8,341 62	98,800 62
Mackerel, fresh.	Brls.	472,948	0 12	56,753 76	
" salted.	Brls.	18,976	15 00	284,640 00	341,393 76
Lobsters, preserved in cans.	Lb.	917,184	0 25	229,296 00	
" fresh in shel.	Cwt.	13,008	5 00	65,040 00	294,336 00
Cod, dried.	"	55,526	5 00	277,630 00	
" fresh.	Lb.	266,400	0 03	7,992 00	
" tongues and sounds.	Brls.	155	10 00	1,550 00	287,172 00
Haddock, dried.	Cwt.	16,641	3 50	58,243 50	
" fresh.	Lb.	627,090	0 03	18,812 70	
" smoked finnan haddies.	"	228,000	0 06	13,680 00	90,736 20
Hake, dried.	Cwt.	3,206	2 50	8,015 00	
" fresh.	Lb.	6,000	0 02	120 00	
" sounds.	"	1,277	0 25	319 25	8,454 25
Pollock, fresh.	"	8,500	0 02	170 00	
"	Cwt.	7,905	3 00	23,715 00	23,885 00
Halibut.	Lb.	87,130	0 10	8,713 00	
Trout.	"	207,35	0 10	2,073 50	
Shad.	Brls.	37	10 00	370 00	
Smelts.	Lb.	59,115	0 05	2,955 75	
Alewives.	Brls.	1,029	4 00	4,116 00	
Eels.	"	1,245	10 00	12,450 00	
Oysters.	"	1,037	6 00	6,222 00	
Clams.	"	370	4 00	1,480 00	
Flounders.	Lb.	250,700	0 03	7,521 00	
Tom-cod.	"	58,550	0 03	1,756 50	
Squid.	Brls.	3,914	4 00	15,656 00	
Coarse and mixed fish.	"	4,600	2 00	9,200 00	
Fish oil.	Galls.	27,444	0 30	8,233 20	
Fish as bait.	Brls.	11,955	1 50	17,932 50	
Fish as fertilizer.	"	730	0 50	365 00	
Dogfish.	"			580 00	99,624 45
Total for 1906.					1,271,494 38
" 1905.					1,338,880 25
Decrease.					67,385 87

SESSIONAL PAPER No. 22

RECAPITULATION.

STATEMENT showing the Number and Value of Fishing Crafts, Nets, &c., in the **Island of Cape Breton**, for the Year 1906.

Articles.	Value.	Total.
	\$ cts.	\$ cts.
113 fishing vessels (2,101 tons) (594 men).	48,630	
2,822 fishing boats (4,606 men).	60,568	
14,870 gill-nets (334,031 fathoms)	120,547	
8 seines (365 fathoms).	1,090	
16 trap-nets	10,600	
3,152 trawls	16,945	
20 wiers.	300	
136 smelt-nets.	879	
11,270 hand lines.	9,485	269,044
60 lobster canneries (1,144 persons employed).	53,820	
151,363 " traps	103,965	157,785
34 freezers and ice houses.	16,845	
1,389 smoke and fish houses	42,644	
414 piers and wharfs.	109,111	
79 tugs, steamers and smacks.	17,825	186,425
Total.		613,254

NOVA SCOTIA, DISTRICT No. 2.

RETURN showing the Number, Value of Vessels and Boats, and Nets, &c., in the County of Antigonish, Province of Nova Scotia, for the Year 1906.

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.						LOBSTER PLANT.		KINDS OF FISH.								
		Vessels.			Boats.			Gill Nets.			Trap Nets.		Trawls.		Hand Lines.		Can-neries.		Salmon, fresh, lb.	Herring, salted, brs.	Herring, fresh, lb.	Mackerel, fresh, lb.		
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.									
<i>Antigonish County.</i>																								
1	Harbour Bonché, Linwood and Cape Jack,.....	1	17	200	4	78	2031	89	380	7480	1363	3	500	67	228	136	68	1	1000	5500	367	71200	2077	1
2	Tracadie, Bayfield, Monk's Head and South Side Antigonish Harbour,.....					55	1147	62	109	2080	597	22	4000	29	118	66	32	1	1000	37050	77	14400	2550	2
3	North Side Antigonish Harbour, Lakeville and South Side Cape George,.....					46	720	69	120	2400	659	9	1400	39	202	53	26	2	2200	14400	53	8300	1200	3
4	North Side Cape George and Georgeville,.....					24	371	41	69	1410	339	2	400	29	155	23	11	1	700	7000	40	5400	2400	4
5	Malignant Cove, Doctor's Brook, Arisaig, Moydart and Knoidart,.....					25	420	30	71	1456	354	4	600	31	145	17	8	1	1400	9000	27	18700	100	5
	Totals	1	17	200	4	228	4689	291	749	14826	3342	40	6900	195	848	295	145	6	6300	72950	564	118000	8327	
	Values																			14590	2538	1180	999	

RETURN showing the Number of Vessels, Boats, Nets, &c., in the County of Colchester, Province of Nova Scotia, for the Year 1906.

Number.	Districts.	FISHING BOATS.				FISHING GEAR OR MATERIALS.								LOBSTER PLANT.		KINDS OF FISH.					
		Boats.		Men.	Gill Nets.			Trawls.		Wiers.		Smelt Nets.		Hand Lines.		Canneries.	Salmon, fresh, lb.	Lobsters, preserved in cans, lb.	Cod, dried, cwt.		
		Number.	Value.		Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.									
													%	%	%					%	%
<i>Colchester County.</i>																					
1	Sterling	22	550	22	1425	13	195	...	2	2000	...	20500	33264	...	1	
2	Stewiacke	135	1325	245	265	6100	1425	1350	2	
3	Five Islands	7	210	14	210	3	
4	Economy	6	240	12	6	1800	240	7	250	5	...	...	12	10	...	2025	...	...	4
5	Little Bass River to Highland Village	9	350	18	9	2900	340	...	...	...	...	...	...	...	...	11790	...	...	5
6	Great Village to Queen's Village	16	500	32	16	4800	900	...	...	...	...	...	...	...	...	26530	...	...	6
	Totals	195	3175	343	296	15600	3105	7	250	3	150	...	12	10	2	62195	33264	221			
	Values .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12439	8316	1105	

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Colchester, Province of Nova Scotia, for the Year 1906.

Number.	DISTRICTS.	KINDS OF FISH.															Total VALUE OF ALL FISH.	Number.
		Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alewakes or Gas- pereau, brls.	Bass, lb.	Oysters, brls.	Clams, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.		
1	Sterling						900	20	7990	105	3000	200				300	10,065 50	1
2	Stewiacke	3200	18	10	5	3500	1000						150	175	30		5,507 50	2
3	Five Island						1000	6							6		1,969 00	3
4	Economy		3				700	15			150		600	12			1,543 10	4
5	Little Bass River to Highland Village							40									3,793 00	5
6	Great Village to Queen's Village																5,706 00	6
	Totals	3200	21	10	5	3500	12600	81	7990	105	3150	200	750	187	36	300		
	Values	96	73	25	15	350	1260	810	399	420	315	1200	1500	56	54	150	28,584 10	

RETURN showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., also the Kinds of Fish, in the County of Cumberland,
Province of Nova Scotia, for the Year 1906.

Number.	FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.						LOBSTER PLANT.		KINDS OF FISH.								
	Vessels.			Boats.			Gill-nets.		Trawls.		Wiers.		Smelt nets.		Hand lines.		Cameries.	Salmon, fresh, lb.	Herring, salted, brls.	Herring, fresh, lb.			
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.							
<i>Cumberland County.</i>																							
1	Pugwash, Gulf Shore and Malagash.	3	51	1000	7	65	1521	75	89	1770	420							24	21575	75	750000		
2	Port Philip, Northport and Amherst Shore					58	1540	94	254	7620	1430	22	660					8	775				
3	Wallace					19	301	19															
4	River Philip					10	100	10	19	200	75												
5	LaPlanche, Napan and Maccan								80	3200	640									1000			
6	Minudie to Apple River					14	280	28	27	1080	216	1	30										
7	Advocate					12	180	24	30	600	150	1	30							1200	500		
8	Spencer's Island					9	370	18	10	400	80	1	25							600			
9	Port Greville					13	260	30	20	800	160	1	25								50		
10	Parrsboro' and Two Islands					17	1125	42	17	680	136	2	55	3	170					1550	40		
	Totals.	3	51	1000	7	217	5677	340	537	16350	3307	28	825	3	170	201	2668	378	378	22350	3750	1285	750000
	Values.																			750	5782	7500	

Districts.	KINDS OF FISH.																	Total Value of ALL Fish.	Number.			
	Herring, smoked, lb.	Macarel, fresh, lb.	LoBSTERS, preserved in cans, lb.	LoBSTERS, fresh in shell, cwt.	Cod, dried, cwt.	Haddock, fresh, lb.	Pollock, cwt.	Hallbut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alwives or Capelan, brls.	Bass, lb.	Pels, lb.	Oysters, brls.	Flounders, lb.	Coarse and mixed fish, brls.			Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.
<i>Cumberland County.</i>																						
1 Pugwash, Gulf Shore and Malagash	29000	330576	30	...	...	...	...	...	...	...	19500	20	...	...	180	...	...	...	820	330	87,009 50	1
2 Port Philip, Northport and Ambrose Shore.	70000	33396	30	...	...	...	...	...	...	...	8000	165	...	...	133	...	49	...	...	300	18,009 00	2
3 Wallace	...	...	...	...	...	...	...	...	...	...	10000	...	...	...	...	...	...	...	...	...	2,056 00	3
4 River Philip	...	...	...	...	...	...	...	...	...	...	25000	...	...	...	15	...	...	...	...	...	1,700 00	4
5 Caplanche, Napian and Macan.	...	...	...	...	...	...	...	...	...	...	1000	165	...	...	...	...	...	...	...	...	710 00	5
6 Minudie to Apple River.	...	...	...	...	...	...	...	...	...	...	250	...	...	...	...	...	...	...	...	...	6 00	6
7 Advocate	...	...	...	...	...	...	...	...	...	...	100	105000	...	...	...	...	...	...	...	...	5,775 00	7
8 Spencer's Island.	...	...	...	...	...	...	...	...	...	...	100	20000	...	...	...	...	...	...	...	...	3,730 50	8
9 Port Greville.	...	...	...	...	...	...	...	...	...	...	1000	150	...	...	...	...	...	...	...	...	576 00	9
10 Parrsboro and Two Islands.	600	...	...	...	...	...	...	...	...	...	...	50	...	...	...	...	...	...	...	...	354 00	10
Totals.	70000	3500	363972	193	134	9200	73	2800	3450	250	63500	350	50	15	328	1650	49	155	827	650	...	...
Values	1400	420	90893	1351	670	276	219	280	345	2500	3175	1400	5	150	1908	49	98	46	1240	325	120,944 00	...

RETURNS showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., in the County of Guysborough, Province of Nova Scotia, for the Year 1906.

FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.										LOBSTER PLANT.						
Vessels.				Boats.		Gill Nets.				Seines.		Trap Nets.		Trawls.		Hand Lines.		Canneries.		
Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Guysborough County.																				
1	Penm Secum.....			48	800	52	46	1090	320	2	260	125			20	140	90	45	1	300
2	Marie Joseph.....			50	900	42	55	1000	300						15	120	100	50	1	700
3	Liscomb.....			40	2000	85	110	2200	650	2	250	150			35	180	130	60	1	1100
4	Gegogin.....			29	600	25	35	760	280						14	120	40	20	1	200
5	St. Mary's Bay and River.....			37	400	30	70	2000	830						6	50	30	15	1	1000
6	Wine Harbour.....			32	400	30	65	1650	500	2	200	120			10	75	40	29		6
7	Port Hilford and Lake.....			40	700	35	80	1800	560						10	80	70	35		7
8	Holland Harbour and Indian River.....			17	500	13	35	700	210						4	60	16	80		8
9	Port Beckerton.....	1	29	1500																
10	Fisherman's Harbour.....			36	800	35	75	1500	500						40	320	80	40	1	1200
11	Country Harbour.....			15	130	12	36	750	250						10	80	60	30	1	400
12	Isaacs Harbour.....			32	600	33	100	2000	600						4	20	15	8		
13	Drum Head.....			40	1500	46	175	3600	1200	2	180	140	1	500	6	100	80	40	1	1000
14	Seal Harbour.....			34	1000	38	120	2400	720	1	100	50			30	500	140	70		13
15	Coddles Harbour.....			30	750	35	75	1500	400	1	100	50			12	150	100	50	1	1000
16	New Harbour.....	1	17	600											10	120	90	45		15
17	Tor Bay.....	1	10	500	3					2	150	100			25	180	350	175	1	1000
18	Larry's River.....	11	191	9500	53	80	6200	83	975	2	150	100			18	180	129	129	1	350
19	Charles Cove.....	3	32	1500	15	60	3550	68	580						85	850	478	478		18
20	Cole Harbour.....	3	34	1750	15	50	2520	40	508						70	700	249	249	1	1800
21	Port Felix.....	8	140	7900	45	123	5900	116	1050	1	100	200			67	670	160	160		20
22	Whitehead.....	3	109	6900	40	111	6500	96	980						2	900	190	370		1300
23	Raspberry and Dover.....	8	32	1600	14	60	2650	65	160						2	1200	245	2450	3	4500
24	Causo and Causo Tittle.....	18	279	17800	81	215	9240	195	39580	5	430	1600	10	5900	65	650	165	165	3	2000
															10	5900	1200	12000	3	7500

SESSIONAL PAPER No. 22

RETURN showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., in the County of Guysborough, Province of Nova Scotia, for the Year 1906—*Continued.*

DISTRICTS.				FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.										LOBSTER PLANT.			
Districts.				Vessels.		Boats.		Gill Nets.				Seines.		Trap Nets.		Trawls.		Hand Lines.		Canneries.	
				Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Number.	Guysborough County.																				
25	Rox Island Main.	2	33	1800	10	16	675	20	2150	1	120	400	2	1000	40	400	52	52	25	25	
26	Half Island Cove					45	2270	50	10600					4000	97	970	140	140	26	26	
27	Philips Harbour.					30	1380	31	754					640	64	640	80	80	27	27	
28	Queensport.	1	29	1200	5	45	2090	50	722	1	120	600	7	4000	100	1000	75	75	2	3300	
29	Pas Brook.					38	1530	45	400				1	1000	60	600	70	70	29	29	
30	Half Way Cove.					70	2460	80	781	1	90	180	6	3600	112	1120	138	138	30	30	
31	Sandy Cove and Cooks Cove					47	1780	50	800				4	2400	52	520	76	76	31	31	
32	Guysboro and Manches-ter	1	36	500	5	24	960	30	398				1	700	30	300	45	45	32	32	
33	Port Shoreham.					34	1620	38	408					320	80	320	80	80	33	33	
34	St. Francis.	1	25	2000	8	46	2090	51	714					640	60	640	60	60	34	34	
35	Oyster Ponds.					48	1900	52	530					320	80	320	80	80	35	35	
36	Sand Point.					30	1220	35	428					300	40	300	40	40	36	36	
37	Steep Creek	1	24	2000	4	50	2820	57	1535	2	160	600			42	420	60	60	1	200	
38	Mulgrave and Aulds Cove	1	34	1500	6	17	680	19	480						20	200	36	36	2	1000	
	Totals.	64	1054	58550	319	1948	77345	1952	353390	28	2984	6465	46	27000	2966	29445	5128	4485	38	29850	

7-8 EDWARD VII., A. 1908

Return showing the Kinds and Quantities of Fish Products in the County of Guysborough, Province of Nova Scotia, for the year 1906.

District.	SALMON.		HERRING.		MACKEREL.		LOBSTERS.		COD.		HADDOCK.		HAKE.		
	Preserved in cans, lb.	Smoked, lb.	Salted, brls.	Fresh, lb.	Smoked, lb.	Fresh, lb.	Salted, brls.	Preserved in Cans, lb.	Fresh in Shell, cwt.	Dried, cwt.	Tongues and Soundings, brls.	Fresh, lb.	Dried, cwt.	Smoked Finnan Haddock, lb.	
Guysborough County.															
1	Ecum Scum.	1200	160	1000	...	150	10	10560	75	190	2	500	5	...	
2	Marie Joseph.	120	80	600	...	100	3	...	...	200	15	400	4	...
3	Liscomb and Spanish Ship Bay.	900	200	2000	...	200	5	29520	263	400	3	500	6	...	
4	Gegogin.	2500	100	800	...	50	2	13008	127	150	1	300	12	...	
5	St. Mary's Bay and River	12000	100	1000	...	75	1	...	...	40	...	300	5	...
6	Wine Harbour.	1000	200	800	...	150	2	...	...	60	...	400	20	...
7	Port Hillford and Lake.	6000	600	1800	...	200	15	...	...	100	...	600	25	...
8	Hollands Harbour and Indian River.	300	...	300	...	300	23	...	...	28	...	100	3	...
9	Port Beckerton.	220	100	1000	...	500	50	18912	105	320	2	5000	10	...	
10	Fishermans Harbour.	200	...	450	...	500	70	20716	120	75	...	400	15	...	
11	Country Harbour	1500	200	500	...	...	...	...	...	25	...	500	25	...
12	Isaac Harbour	1400	...	350	1500	1000	20	25324	43	250	1	500	10	...	
13	Drum Head.	200	...	350	1500	3000	100	...	...	450	3	20000	35	...
14	Seal Harbour.	100	...	320	1000	1000	35	20640	52	260	1	1000	50	...	
15	Coddles Harbour.	...	...	100	600	300	12	14748	17	200	1	500	20	...
16	New Harbour.	300	...	600	1000	1000	250	9408	31	750	3	600	25	...	
17	Tor Bay.	...	...	180	...	...	100	15888	15	420	...	60	45	...
18	Larry's River.	...	...	1190	...	...	320	...	...	1100	...	60	110	...
19	Charles Cove.	...	...	958	...	...	198	37104	64	800	...	85	65	...
20	Cole Harbour.	...	...	480	...	...	150	...	...	410	...	20000	96	...
21	Port Felix.	280	...	1290	...	...	450	11232	6	1600	...	2000	20	...
22	Whitehead.	1000	...	960	...	30800	300	45504	423	2185	...	90000	772	...	
23	Raspberry and Dover.	...	...	270	30000	16600	100	60288	260	1600	...	10000	80	...
24	Causo and Causo Tittle.	30000	6000	1150	353000	962500	2300	78528	891	9450	40	4087900	2600	725000	

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Guysborough, Province of Nova Scotia,
For the Year 1906—Continued.

DISTRICTS.	SALMON.			HERRING.		MACKEREL.		LOBSTERS.		COD.		HADDOCK.		HAKE.		Number.		
	Fresh, lb.	Preserved in Cans, lb.	Smoked, lb.	Salted, brls.	Fresh, lb.	Smoked, lb.	Fresh, lb.	Salted, brls.	Preserved in Cans, lb.	Fresh in Shell, cwt.	Dried, cwt.	Tongues and Sounds, brls.	Fresh, lb.	Dried, cwt.	Smoked Finnan Haddock, lbs.		Dried, cwt.	Sounds, lb.
Guysborough County.																		
25 Fox Island Main.....	2000			50	4000			12300	137			140	9000	45			80	25
26 Half Island Cove.....	2500			145	200000			128500	956			1180	136500	340	6800		435	500
27 Phillips Harbour.....	180			100	27000			35430	178			460	31800	190			63	49
28 Queensport	1000			156	100000			182500	430	31776	56	879	403000	200	20000		235	100
29 Peas Brook				282	80500			21200	120			290	11300	190			85	84
30 Half Way Cove	6480			240	13000			21150	450	450		450	23400	215			229	170
31 Sandy Cove and Cook's Cove ..	4980			145	32000			51500	290	32000		240	5080	140			52	36
32 Guysboro and Manchester.....	1400			112	88000			7800	180			36	20000	18			23	70
33 Port Shoreham				100	2700			16500	234			226	7300	139	33		9	33
34 St. Francis				350	13200			54560	250			194	19600	12			285	300
35 Oyster Ponds				160	30000			13440	458			60	5000	17				35
36 Sand Point				150	2750			2750	460			65	1000	7			7	36
37 Sheep Creek				450	30000			10200	1000			100	10200	20			34	12
38 Mulgrave and Auds Cove.....				105				90000	160	44064		100	175000	20	45000		15	38
Totals.....	77760	200	8800	13163	1024800			1666255	9799	487220	2551	25543	59	5097180	6649	799700	5563	6026
Values	15562	30	1760	59233	10248			199950	146985	121805	17857	127715	590	1529115	23271	47982	13907	1506

7-8 EDWARD VII., A. 1908

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Guysborough, Province of Nova Scotia, for the Year 1906.

Number.	Districts.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alwives or Gaspereau, brls.	Bass, lb.	Eels, brls.	Clams, brls.	Flounders, lb.	Tom Cod or Frost Fish, lb.	Squid, brls.	Coarse and Mixed fish, brls.	Fish Oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Seal Skins, number.	TOTAL VALUE OF ALL FISH.	Number.
<i>Guysborough County.</i>																				
1	Ecum Secum.....	10	800	400	...	4000	1	...	50	8	1000	900	...	25	180	100	350	...	6,729 00	1
2	Marie Joseph.....	8	1400	100	...	300	...	...	40	8	1000	600	...	15	190	100	60	...	2,485 25	2
3	Liscomb and Spanish Ship Bay	20	2400	500	...	2000	1	100	10	20	1500	1000	...	30	375	300	400	...	14,036 50	3
4	Gegogn.....	5	400	300	...	...	...	...	25	10	600	500	...	10	120	80	180	...	6,805 00	4
5	St. Mary's Bay and River.....	3	300	3800	1	3000	1	200	40	4	600	500	...	4	30	75	30	...	4,783 00	5
6	Wine Harbour.....	4	400	...	...	...	...	...	10	4	500	400	...	6	40	70	60	...	1,904 00	6
7	Port Hilford and Lake.....	6	2200	300	...	9000	...	200	16	...	600	500	...	10	80	80	50	...	4,662 50	7
8	Holland's Harbour and Indian River.....	3	100	300	...	...	...	...	3	4	800	300	...	6	20	75	50	...	1,460 50	8
9	Port Beckerton.....	9	300	...	...	...	3	...	5	10	1000	400	...	16	280	100	270	...	10,827 50	9
10	Fisherman's Harbour.....	6	200	...	...	120	...	...	2	5	800	400	...	8	60	120	260	...	10,116 00	10
11	Country Harbour.....	1	...	...	...	400	...	100	15	1	200	100	...	3	15	60	...	...	1,410 00	11
12	Isaac's Harbour.....	30	5000	500	...	300	...	...	20	3	800	300	...	18	200	120	330	...	11,636 50	12
13	Drum Head.....	120	14000	...	...	...	...	...	10	...	400	800	...	25	325	150	200	...	9,281 75	13
14	Scal Harbour.....	100	1000	200	...	...	...	...	4	2	400	600	...	15	220	100	300	...	10,034 50	14
15	Coddles Harbour.....	100	1000	100	...	...	...	...	15	3	300	400	...	10	150	80	198	...	6,448 00	15
16	New Harbour.....	500	5000	600	...	5000	5	150	...	...	600	1000	...	30	600	120	240	...	16,802 50	16
17	Tor Bay.....	188	985	600	...	...	4	...	15	...	...	...	...	40	750	150	45	...	10,275 50	17
18	Larry's River.....	498	6800	1100	...	400	16	...	...	...	...	...	...	150	2200	475	60	...	22,047 00	18
19	Charles Cove.....	582	1240	970	...	350	9	...	60	...	...	...	...	10	50	1430	220	...	25,899 75	19
20	Cole Harbour.....	100	1800	...	...	...	25	...	100	...	...	...	...	35	1260	250	40	...	10,244 75	20
21	Port Felix.....	534	2120	1500	...	375	427	...	90	...	...	...	...	50	1990	480	200	...	33,837 25	21
22	Whitehead.....	468	1000	600	...	400	65	...	60	...	...	...	...	90	2500	620	600	...	50,183 00	22
23	Raspberry and Dover.....	1080	280	...	...	200	5	...	40	...	...	...	...	20	3800	320	800	...	36,327 17	23
24	Causo and Causo Tittle.....	28700	45700	1500	10	2000	175	4000	100	...	4000	...	...	120	40600	900	10000	...	5,627 17	24
25	Fox Island Main.....	40	...	...	...	...	...	...	...	...	...	...	...	40	400	60	100	...	6,223 50	25

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Guysborough, Province of Nova Scotia, for the Year 1906—Continued.

Districts.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alewives or Gaspereau, brls.	Bass, lb.	Eels, brls.	Clams, brls.	Flounders, lb.	Tom Cod or Frost Fish, lb.	Squid, brls.	Coarse and Mixed Fish, brls.	Fish Oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Seal Skins, number.	Total Value of All Fish.	Number.
<i>Guysborough County.</i>																			
26 Half Island Cove.....	350					30						320	400	1260	200	400		49,846 00 26	26
27 Philip's Harbour.....	20		300					10				10	200	380	120	200		12,590 35 27	27
28 Queen's Port.....	160		200			26		20				400	200	2800	250	400		61,804 50 28	28
29 Peas Brook.....	50		400			2						28	70	675	140	60		9,998 00 29	29
30 Half Way Cove.....	192		600			1		30				19	100	860	280	80		16,531 50 30	30
31 Sandy Cove and Cook's Cove..	965		400		4000	6		40				18	80	193	160	20		18,877 90 31	31
32 Guysboro and Manchester.....	144		1000		3600	10	50	45					10	100	60	10		8,286 00 32	32
33 Port Shoreham.....	12					4		30					20	300	80	25		8,719 50 33	33
34 St. Francis.....	20					10		25					30	220	160	20		15,117 70 34	34
35 Oyster Ponds.....						14		35					50	250	160	15		10,960 80 35	35
36 Sand Point.....												100	60	80	40	20		8,916 00 36	36
37 Sheep Creek.....	16											200	50	180	50	40		20,610 00 37	37
38 Mulgrave and Aulds Cove.....	60		100		2000			50				1700	50	100	75	10		40,983 50 38	38
Totals.....	35014	92625	18970	11	37445	860	4800	1105	82	15100	8700	11077	2026	62790	6980	16203	26	.....	.....
Values.....\$	105042	9262	1897	110	1872	3440	480	11050	164	453	261	44308	4052	18837	10470	8101	32	1,161,141 75	75

RETURN showing the Number of Vessels, Boats and Nets, &c., in the County of **Halifax**, Province of **Nova Scotia**,
for the Year 1906.

FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.										LOBSTER PLANT.					
Vessels.				Boats.		Gill-nets.			Seines.			Trawls.		Snelt-nets.		Hand lines.		Canneries.	
Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.
Halifax County.																			
1				250	4,505	120	650	13,300	3,825	70	7,000	17,000	90	360		75			1
2	117	4,600	40	260	6,000	200	520	10,700	2,300	25	2,500	2,500	200	1,000		100			3
3	119	3,500	31	275	6,500	160	8,000	63,700	7,400	21	2,100	4,100	100	400		200			3
4				90	1,000	70	400	8,400	2,800	9	900	2,700	75	225		100			4
5	75	2,200	20	200	3,500	270	3,000	61,600	9,900	78	7,800	21,800	99	360		500			5
6	40	500	6	200	3,500	156	560	11,800	4,000	55	5,500	15,500	90	360		200			6
7	154	5,350	40	185	3,200	270	1,000	20,350	5,200	25	2,500	2,500	160	640		200			7
8	109	4,000	22	15	300	30	150	3,800	1,250	9	900	2,700	60	240		50			8
9	40	700	5	45	900	90	300	6,700	1,900	8	800	2,400	60	240		100			9
10	80	1,800	15	60	775	100	300	6,350	1,700	14	1,400	1,400	40	160		50			10
11				50	700	110	720	20,700	10,000	18	1,800	1,800	55	220		45			11
12	175	4,200	30	65	825	61	240	5,100	1,600	24	2,400	2,400	120	480		85			12
13				20	300	20	50	1,000	230	12	1,200	4,200	10	40		50			13
14	42	1,000	6	12	90	10	10	200	50	4	400	1,200	10	50		14			14
15				6	150	20	30	600	150	1	100	200				5			15
16				85	2,200	80	343	20,580	1,372										16
17				20	450	22	70	4,200	280							240			17
18				30	425	28	122	7,320	488							50			18
19				125	1,380	48	340	20,400	1,460							24			19
20	315	11,700	79	26	410	23	66	3,900	280							330			20
21	10	250	3	44	700	38	74	4,440	300							55			21
22	106	2,600	16	53	1,100	41	94	5,640	400							50			22
23	157	6,000	40	76	2,000	52	160	9,600	700							35			23
24																325			24
25																75			25
26																80			26
27																35			27
28																32			28
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99																25			99
100																25			100

RETURN showing the Number of Vessels, Boats and Nets, &c., in the County of **Halifax**, Province of **Nova Scotia**,
for the Year 1906—*Continued.*

SESSIONAL PAPER No. 22

FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.										LOBSTER PLANT.									
Vessels.				Boats.		Gill-nets.			Seines.		Trawls.		Snelt-nets.		Hand lines.		Canneries.						
Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.					
DISTRICTS.																							
Halifax County.																							
24	14	300	4	77	1,700	64	250	15,000	1,100	5	4,320	790	1	10	144	70	2	1,250	24		
25	14	150	5	20	420	16	76	4,560	360	.....	.....	.....	.....	.....	.....	40	16	.....	.....	25
26	13	700	4	25	905	31	107	2,140	428	.....	.....	.....	5	20	.....	86	43	.....	.....	26
27	59	1,550	15	47	1,974	48	253	5,060	1,012	.....	.....	.....	9	175	.....	139	69	.....	.....	27
28	39	1,440	10	31	1,015	28	178	3,560	712	2	180	200	4	45	.....	71	36	1	300	28		
29	43	800	9	82	3,069	97	571	10,220	2,044	.....	.....	.....	3	56	.....	200	100	2	1,300	29
30	63	2,475	13	30	924	33	171	3,421	684	3	295	370	5	115	5	21	96	48	1	1,600	30		
31	.....	.....	.....	6	160	6	24	480	96	.....	.....	.....	.....	.....	.....	10	5	2	1,500	31
32	.....	.....	.....	13	261	16	22	440	88	.....	.....	.....	.....	.....	.....	29	15	2	4,500	32
33	.....	.....	.....	3	45	3	6	120	24	.....	.....	.....	.....	.....	.....	3	2	.....	.....	33
34	.....	.....	.....	22	256	12	12	840	168	4	235	145	.....	.....	.....	24	12	2	15,000	34
Totals.				72	1,784	55,815	413	2,548	51,439	2,373	13,899	353,281	64,721	388	42,300	83,935	1,186	5,186	388	4,117	2,042	19	30,550

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Halifax, Province of Nova Scotia, for the Year 1906—Continued.

DISTRICTS.	SALMON.		HERRING.		MACKEREL.		LOBSTERS.		COD.		HADDOCK.			HAKE.		Number.	
	Fresh, lb.	Preserved in cans, lb.	Salted, brls.	Fresh, lb.	Smoked, lb.	Fresh, lb.	Salted, brls.	Preserved in cans, lb.	Fresh in shell, cwt.	Dried, cwt.	Tongues and sounds, brls.	Fresh, lb.	Dried, cwt.	Smoked flnan haddies, brls.	Dried, cwt.		Sounds, lb.
<i>Halifax County.</i>																	
25 West Ship Harbour .....	.....	.....	118	.....	.....	13	.....	.....	.....	127	.....	18	.....	.....	.....	25
26 East Ship Harbour .....	.....	.....	230	.....	.....	3	.....	.....	.....	260	.....	22	.....	.....	20	24
27 Pleasant Harbour and Tangier	500	.....	1290	.....	.....	42	.....	.....	.....	935	.....	120	.....	.....	75	112
28 Pope's Harbour and Gerard's Island .....	.....	.....	1106	.....	.....	8	26592	.....	.....	282	.....	40	.....	.....	90	100
29 Spry Bay, Taylor Head and Mushaboom	400	.....	3033	.....	.....	25	38688	386	653	653	.....	33	.....	.....	81	100
30 Sheet Harbour and Sober Island	700	.....	610	.....	.....	4	.....	.....	35	357	.....	17	.....	.....	89	600
31 Beaver Harbour and Port Dufferin	200	.....	50	.....	.....	1	60096	614	48	48	.....	2	.....	.....	.....	31
32 Quoddy and Harrigan Cove	600	.....	35	.....	.....	3	65472	1100	180	180	.....	4	.....	.....	.....	32
33 Moser River and Smith's Cove	800	.....	3	.....	.....	.....	.....	.....	181	35	.....	.....	.....	.....	.....	33
34 Mitchell's Bay and Ecmu Secum .....	.....	.....	250	.....	.....	2	62928	432	140	140	.....	5	.....	.....	.....	34
Totals	29120	.....	20342	114500	6000	2739	379632	7141	19417	72	706500	2212	3000	2036	1304	.....
Values	5824	.....	121239	1145	120	41085	94908	49987	97085	720	21195	7742	180	5090	326	.....

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Halifax, Province of Nova Scotia, for the Year 1906—*Concluded.*

Districts.	Pollock, cwt.	Hallibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alewives or Gaspereau, brls.	Eels, brls.	Oysters, brls.	Clams, brls.	Flounders, lb.	Tom cod or frost fish, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Seal skins, No.	Total Value of All Fish.	Number.
<i>Halifax County.</i>																			
25 West Ship Harbour.....	13	860	250	.....	1000	15	5	.....	20	5000	.....	.....	.....	53	22	.....	.....	1,972 90 25	25
26 East Ship Harbour.....	30	3130	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	197	16	.....	.....	3,003 10 26	26
27 Pleasant Harbour and Tangier	75	3140	.....	.....	.....	.....	.....	.....	14	.....	.....	.....	.....	672	48	.....	.....	12,686 10 27	27
28 Pope's Harbour and Gerrard's Island.....	30	1350	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	376	22	260	37	14,098 05 28	28
29 Spry Bay, Taylor Head and Mushaboom.....	80	2030	.....	.....	.....	.....	60	.....	17	.....	.....	.....	.....	526	17	1130	.....	36,230 80 29	29
30 Sheet Harbour and Sober Island.....	6	3170	.....	.....	1600	.....	1	.....	1	.....	.....	.....	.....	199	21	.....	.....	7,423 20 30	30
31 Beaver Harbour and Port Dufferin.....	2	380	.....	.....	.....	.....	12	.....	1	.....	.....	.....	.....	20	3	600	40	20,375 50 31	31
32 Quoddy and Harrigan Cove.....	.....	280	.....	.....	.....	.....	40	.....	3	.....	.....	.....	.....	145	3	650	.....	26,111 50 32	32
33 Moser River and Smith's Cove.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	1	.....	.....	1,861 80 33	33
34 Mitchell's Bay and Egan Seum.....	3	700	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	65	3	620	.....	2,045 50 34	34
Totals.....	2706	77670	13615	.....	50800	200	237	3	6194	162100	13000	213	302	10135	2459	4570	80	.....	.....
Values.....\$	8118	7767	1361	.....	2540	800	2370	18	12388	4863	390	852	604	3040	3688	2285	100	668,166 50	.....

SESSIONAL PAPER No. 22

RETURN showing the Number of Vessels, Boats, Nets, &c., in the County of Pictou, Province of Nova Scotia, for the Year 1906.

Number.	FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.				LOBSTER PLANT.		KINDS OF FISH.										
	Vessels.		Boats.		Gill nets.		Trawls.		Smelt Nets.		Canneries.		Salmon, fresh, lb.	Herring, salted, brls.	Herring, fresh, lb.	Mackerel, fresh, lb.					
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.									
<i>Pictou County.</i>																					
1 West Pictou .....	...	...	...	...	154	3875	164	116	3480	812	2	20	13	390	14	12100	900	80	11000	2500	1
2 Pictou Island .....	...	...	...	...	55	2850	100	50	500	400	...	...	...	...	3	14850	...	110	47900	700	2
3 Central Division	1	16	900	3	4	100	6	12	240	90	2	20	9	225	...	...	210	49000	300	3	
4 Southern Division .....	...	...	...	...	26	385	29	45	2584	1080	14	55	3	125	1	300	19300	...	30700	5300	4
5 Merigonish Island .....	...	...	...	...	11	220	12	20	1180	630	...	...	12	580	1	700	5900	...	4500	290	5
6 North Beach .....	...	...	...	...	12	150	12	24	780	405	4	20	13	750	2	1200	7000	...	5700	300	6
7 Ponds .....	...	...	...	...	13	175	13	20	1600	600	3	15	16	850	1	1100	6300	...	4900	450	7
8 Lismore .....	...	...	...	...	11	660	11	19	1650	700	5	25	...	...	1	300	3600	...	4400	250	8
Totals,	1	16	900	3	287	8415	347	306	12014	4917	30	155	66	2920	23	30550	43000	400	154100	10000	
Values																	8000	1800	1541	1200	

RETURN showing the kinds and Quantities of Fish and Fish Products in the County of Pictou, Province of Nova Scotia, for the Year 1906.

Number.	DISTRICTS.	KINDS OF FISH.															TOTAL VALUE OF ALL FISH.	Number.		
		Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Haddock, fresh, lb.	Hake, dried, cwt.	Trout, lb.	Smelts, lb.	Alewives or Gaspareau, brls.	Bass, lb.	Eels, brls.	Oysters, brls.	Clams, brls.	Tom cod or frost fish, lb.	Coarse and mixed fish, brls.	Fish as bait, brls.			Fish as manure, brls.	
1	West Pictou	256942	4	60	...	40	300	10300	25	...	...	45	15	2800	18	600	2500	68,829 00	1
2	Pictou Island	166600	...	127	...	50	...	...	...	...	...	...	...	...	...	...	...	43,468 00	2
3	Central Division	...	...	75	...	120	2000	12000	...	200	40	30	...	...	...	...	1500	4,256 00	3
4	Southern Division	8832	...	165	1900	10	300	1900	20	...	12	...	...	...	...	...	80	8,335 50	4
5	Merigonish Island	11	1300	7	...	11300	16	25	14	2,130 00	5
6	North Beach	5280	...	6	1200	8	...	11100	25	35	12	3,772 50	6
7	Ponds	32880	...	5	1400	9	100	9750	18	27	60	10,415 50	7
8	Lismore	30	320	1,096 00	8
	Totals.	470534	4	457	7200	252	2700	56350	45	200	111	75	15	2800	18	752	4486	...		
	Values	117634	28	2285	216	630	270	2817	180	20	1110	450	30	84	36	1128	2063	142,302 50		

SESSIONAL PAPER No. 22

RECAPITULATION.

Of the Yield and Value of the Fisheries in District No. 2, Nova Scotia, with comparative statements of the increase or decrease for the years 1905 and 1906.

Kinds of Fish.	Quantity, 1906.	Rate.	Totals.	QUANTITIES.	
				Increase.	Decrease.
		\$ cts.	\$ cts.		
Salmon, fresh.....	lbs.	315,375	0 20	63,075 00	70,025
" preserved in cans.....	"	200	0 15	30 00	1,800
" smoked.....	"	18,675	0 20	3,735 00	14,075
Herring, salted.....	brls.	42,369	4 50	190,660 50	12,194
" fresh.....	lbs.	2,161,400	0 01	21,614 00	1,109,200
" smoked.....	"	76,000	0 02	1,520 00	528,200
Mackerel, fresh.....	"	3,091,082	0 12	370,929 84	1,187,177
" salted.....	brls.	12,700	15 00	190,500 00	1,582
Lobsters, preserved in cans.....	lbs.	1,871,952	0 25	467,988 00	137,468
" fresh in shell.....	cwt.	9,889	7 00	69,223 00	21,952
Cod, dried.....	"	46,715	5 00	233,575 00	2,065
" tongues and sounds.....	brls.	131	10 00	1,310 00	28
Haddock, fresh.....	lbs.	5,823,880	0 03	174,716 40	652,880
" dried.....	cwt.	9,009	3 50	31,531 50	1,218
" smoked finnan haddies.....	lbs.	802,700	0 06	48,162 00	159,200
Hake, dried.....	cwt.	8,912	2 50	22,280 00	4,536
" sounds.....	lbs.	9,340	0 25	2,335 00	13,071
Pollock.....	cwt.	37,826	3 00	113,478 00	4,569
Halibut.....	lbs.	176,595	0 10	17,659 50	670,995
Trout.....	"	54,155	0 10	5,415 50	3,470
Shad.....	brls.	374	10 00	3,740 00	44
Smelts.....	lbs.	221,885	0 05	11,094 25	39,525
Alewives or Gaspereau.....	brls.	1,832	4 00	7,328 00	490
Bass.....	lbs.	9,200	0 10	920 00	13,750
Eels.....	brls.	1,527	10 00	15,270 00	33
Oysters.....	"	685	6 00	4,110 00	251
Clams.....	"	7,044	2 00	14,088 00	4,422
Flounders.....	lbs.	198,250	0 03	5,947 50	60,734
Tom cod.....	"	25,500	0 03	765 00	176,250
Squid.....	brls.	11,624	4 00	46,496 00	2,521
Coarse or mixed fish.....	"	2,993	2 00	5,986 00	8,913
Fish oil.....	galls.	74,582	0 30	22,374 60	14,476
Fish used as bait.....	brls.	12,272	1 50	18,408 00	13,535
Fish products as fertilizer.....	"	27,379	0 50	13,689 50	328,615
Seal skins.....	No.	106	1 25	132 50	47
			2,200,087 59		

District No. 2, Nova Scotia.

RECAPITULATION.

SHOWING the Number and Value of Fishing Vessels, Boats, &c., in District No. 2,
Province of **Nova Scotia**, for the Year 1906.

Material.	Value.	Total.
	\$	\$
143 vessels (3,002 tons).....	117,265	
5,544 boats.	152,890	
		270,155
33,434 gill nets (773,461 fathoms).....	251,887	
417 seines (45,419 fathoms).....	90,425	
104 seine spillers.	11,400	
118 trap nets	37,820	
4,412 trawls.....	36,709	
28 weirs.....	675	
322 smelt bag nets.....	6,758	
10,118 hand lines.....	7,208	
		442,963
120 lobster canneries.....	121,600	
274,070 " traps.....	182,460	
		304,240
65 freezers and ice houses	228,780	
1,736 smoke and fish houses	173,844	
328 piers and wharfs.....	156,711	
28 tugs and snacks.....	62,150	
		619,525
Total.		1,638,883

COMPARATIVE Statement of the Value of the Fisheries in each County of District No. 2,
Province of **Nova Scotia**, for the years 1905 and 1906.

County.	Value in 1905.	Value in 1906.	Increase.	Decrease.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Antigonish	75,050 60	71,595 24		3,455 36
Colchester.....	25,723 50	28,584 10	2,860 60	
Cumberland.....	142,374 50	120,944 00		21,430 50
Guysborough	1,385,018 75	1,161,141 75		223,877 00
Halifax.	635,704 85	668,166 50	32,461 65	
Hants.....	8,249 75	7,353 50		896 25
Pictou.....	149,029 50	142,302 50		6,727 00
Total for 1906	2,421,151 45	2,200,087 59	35,322 25	256,386 11
	2,200,087 59			35,322 25
Decrease.....	221,063 86			221,063 86

NOVA SCOTIA—*Continued.*

District No. 3.

FISHERY STATISTICS

COUNTIES OF LUNENBURG, QUEEN'S, SHELBURNE, YARMOUTH,
DIGBY, ANNAPOLIS AND KING'S.

RETURN showing the Number, Tonnage and Value of Vessels and Boats, Nets, etc., Quantity and Value of Fish in the County of Lunenburg, Province of Nova Scotia, for the Year 1906.

DISTRICTS.				FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.						LOBSTER PLANT.		KINDS OF FISH.					Number.				
				Vessels.		Boats.		Gill-Nets.		Seines.		Trap-Nets.		Trawls.		Hand-Lines.		Canneries.									
Number.		Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Salmon, fresh, lb.	Salmon, smoked, lb.	Herring, salted, brls.	Herring, fresh, lb.	Mackerel, fresh, lb.	Number.		
<i>Lunenburg Co.</i>																											
1	Fox Point.....	115	2400	122	30	6000	1600	20	2000	8500	11	2000	9	65	100	70	120	400	300	300	1	
2	Mill Cove.....	.....	.....	5	200	3200	220	32	7000	2300	22	2500	1600	10	2000	7	60	10	7	80	25	100	300	400	2
3	Lodge and N. W. Cove.....	.....	.....	.....	70	1200	85	22	2900	370	16	2000	1600	4	1000	6	60	.....	.....	75	.....	150	100	300	3
4	Aspotogan.....	.....	.....	.....	44	900	50	4	1000	200	7	800	700	4	600	4	30	.....	.....	.....	.....	200	.....	100	4
5	Baywater and Blandford.....	.....	.....	.....	170	2000	190	8	1800	375	15	1300	850	8	700	2	25	40	32	50	.....	1100	.....	25	5
6	Deep Cove.....	.....	.....	.....	20	150	24	10	800	900	4	500	400	2	180	.....	5	8	.....	.....	.....	100	.....	20	6
7	Chester Bay.....	1	40	900	5	140	2800	70	240	12500	3000	14	1000	2800	13	2700	1	12	20	10	21000	7000	400	500	2000	7	
8	Mahone Bay and Martin River.....	25	2000	85000	400	214	3000	280	250	13000	3500	12	900	2500	5	1050	46	400	100	80	3000	200	1000	4000	8	
9	Little and BigTancock Islands.....	375	8900	400	30	6600	1700	45	4400	2450	20	2100	15	160	210	190	200	4000	500	600	9	
10	Lunenburg Harbour to Kingsbury.....	62	5090	330900	962	*530	*14200	204	1400	28000	14000	6	600	1200	50	12500	300	13500	2000	1000	2	400	2570	10000	6300	10
11	LaHave River District.....	51	4183	271900	733	*470	*12850	150	1450	29000	14500	8	800	2000	8	2000	250	11250	2500	1250	1	200	10000	4700	12000	3000	11
12	Petite Rivière to Port Medway..	2	76	5040	14	80	3400	138	800	1600	8000	2	200	400	2	500	5	225	600	300	13500	1760	1400	200	12	
Totals.....		142	11405	6394090	2119	1788	*45450	1883	4276	110200	50445	171	15000	25000	137	27330	645	25787	5585	2947	625	15780	27600	15645	1877	
Values....\$		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6805	12578900	276	1877	.....	

* 640 dories used by sailors and their values, \$9,550 are therein included.

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Lunenburg, Province of Nova Scotia,
for the Year 1906.

Number.		KINDS OF FISH AND FISH PRODUCTS.																				TOTAL VALUE OF ALL FISH.		Number.		
Districts.		Mackerel, salted, brls.	Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Haddock, smoked, finnan haddies, lb.	Hake, dried, cwt.	Hake, sounds, lb.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Sweetst, lb.	Alseives or Gas- pereau, brls.	Eels, brls.	Clams, brls.	Flounders, lb.	Tom cod or frost fish, lb.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.		
<i>Lunenburg Co.</i>																										
1	Fox Point.	100	.....	5	300	10	50	60	.....	100	20	20	2500	30	.....	.....	.....	.....	.....	24000	1500	200	80	300	.....
2	Mill Cove.	150	.....	8	200	2	50	15	.....	25	.....	15	2000	20	.....	.....	.....	.....	.....	20000	1500	33	25	50	.....
3	Lodge and N. W. Cove	250	.....	6	65	.....	50	35	.....	22	.....	27	5000	.....	.....	.....	.....	.....	.....	23000	300	100	40	80	.....
4	Aspotogan	400	30000	1	10	.....	50	5	.....	8	.....	7	.....	.....	.....	.....	.....	.....	.....	12000	2000	50	10	60	.....
5	Baywater and Blandford.	300	.....	2	18	.....	125	26	.....	17	.....	25	15000	25	.....	.....	.....	.....	.....	33000	2000	200	35	260	.....
6	Deep Cove.	25	.....	1	15	.....	50	15	.....	8	.....	6	.....	.....	.....	.....	.....	.....	.....	8000	80	10	15	10	.....
7	Chester Bay	200	48000	500	700	5	1000	25	200	10	100	12	400	400	500	42	5	.....	.....	30000	1000	200	120	200	.....
8	Malone Bay and Martin River.	25	.....	10	20000	30	2500	60	400	5	100	170	15000	200	800	10	6	4	.....	9000	4000	200	400	500	.....
9	Little & Big Tan cock Islands.	300	.....	23	142	.....	600	280	.....	35	.....	40	1400	.....	.....	.....	.....	.....	.....	60000	.....	900	150	1000	160
10	Lunenburg Hbr to Kingsbury.	2300	32780	1090	55350	50	4500	9380	.....	1830	.....	690	110000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	LaHave River District.	1700	13680	180	37290	28	8000	270	.....	.....	.....	442	2000	.....	7000	.....	25	45	.....	.....	.....	.....	.....	.....	.....
12	Porte Riviere to Port Medway.	720	.....	80	1200	5	900	18	.....	.....	.....	60	400	.....	1500	.....	6	15	.....	.....	.....	.....	740	.....	.....
Totals.		6470	124460	1906	115290	130	17875	10189	600	2000	220	1514	150700	675	9800	70	59	77	225000	18600	1963	50110	2465	170	.....
Values.		97050	31115	19060	576450	1300	536	35662	366180	55	4542	15970	67	490	280	500	154	6750	558	3926	15033	3698	85	907570

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Queen's, Province of Nova Scotia, for the Year 1906.

Number.	Name.	KINDS OF FISH.																			TOTAL VALUE OF ALL FISH.	Number.		
		Mackerel, salted, brls.	Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Haddock, fresh, lb.	Haddock, dried, cwt.	Haddock, smoked finnan haddies, lb.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alwives or Casper- eau, brls.	Eels, brls.	Clams, brls.	Flounders, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.			Fish as bait, brls.	Seal skins, No.
1	Port Medway.....	370	.....	.....	1650	600	100	.....	54	1000	.....	.....	5000	20	40	40	.....	45	15	.....	55	50	22,893 00
2	Mill Village and Greenfield.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
3	Liverpool, Brooklyn and Western Head.....	75	.....	.....	1530	4000	300	300	375	1000	.....	.....	5000	90	16	.....	.....	.....	.....	.....	.....	.....	2
4	Gull Islands, Summerville and White and Hunt's Points.....	120	.....	15	1175	730	126	.....	300	.....	100	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
5	Port Mouton and vicinity.....	75	68160	1600	515	.....	60	.....	40	2500	300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
6	Ports Joli and Hebert.....	5	960	200	375	.....	50	.....	20	270	100	.....	500	.....	12	.....	500	.....	.....	.....	.....	.....	5
7	Beach Meadows to Berlin.....	100	22800	1400	765	.....	425	.....	80	400	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
	Totals.....	745	91920	3245	6010	5330	1061	300	869	5170	6600	5	7500	113	68	40	1000	55	55	1370	715	50	7
	Values.....\$	11175	22980	32450	30050	160	3713	18	2607	517	660	50	375	452	680	80	30	220	110	411	1073	62	200,169 40	

RETURN showing the Number of Vessels, Boats, Nets, &c., in the County of Shelburne, Province of Nova Scotia, for the Year 1906.

Number.	Districts.	FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.						LOBSTER PLANT.		KINDS OF FISH.					Number.	
		Vessels.			Boats.			Gill Nets.			Trawls.		Hand Lines.	Canneries.	Herring, salted, brls.	Herring, fresh, lb.	Herring, smoked, lb.	Mackereel, fresh, lb.	Mackereel, salted, brls.			
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Value.									
																				Number.		Value.
Shelburne County.																						
1	Wood's Harbour	9	98	2500	30	140	7400	180	665	20000	3550	300	300	5	2550	724	.....	.....	.....	286	1
2	Shag Harbour and Bear Point.	9	84	2100	22	92	3000	110	1080	31300	8600	300	300	3	2100	800	.....	.....	.....	115	2
3	Cape Island	62	682	18600	240	500	35000	650	5000	84600	40000	2600	2600	4	2850	5933	.....	.....	.....	76	3
4	Barrington	6	200	8000	48	64	1920	64	439	7300	3530	300	300	1	200	110	.....	.....	.....	90	4
5	Port Latour and Baccaro	16	186	5375	68	300	9000	300	4000	67800	32000	350	350	1	200	2484	.....	.....	.....	90	5
6	Cape Negro Island and Port Clyde	4	61	2400	24	150	3800	162	2400	41300	19400	300	300	2	400	1897	.....	.....	.....	6	6
7	Port Saxon, N. E. and N. W. Harbour.	4	120	5500	34	10	250	10	150	4500	750	175	175	..	..	11100	325	1000	1000	100	7
8	Black Point, Red Head and Round Bay	..	..	..	..	30	1000	70	500	15000	2500	40	200	275	275	630	1000	2000	200	4	8
9	Roseway, McNutt's Island and Carleton.	2	34	1500	13	40	2000	80	250	7500	1250	60	300	250	250	1150	2000	500	500	20	9	
10	Gunning Cove to Birchtown.	..	..	..	..	30	750	60	150	4500	750	30	150	150	150	1025	2500	1000	500	7	10
11	Shelburne and Sandy Point.	7	413	25000	91	40	1100	80	500	15000	2500	75	375	900	900	1350	3000	1500	500	70	11	
12	Jordan.	42	1100	75	300	3000	1500	40	200	300	300	6100	1200	2000	1500	1000	145	12
13	Lockeport.	12	442	25000	114	150	2000	280	500	15000	2500	200	1000	1500	1000	500	3750	5000	500	2000	800	13
Totals		131	2920	96575	684	1598	68320	2121	15325	322800	80830	462	2310	7700	7200	21398	16500	8000	4800	1613		
Values.		..	..	..	..	..	..	..	..	..	..	..	..	..	..	4610	106390	165	160	576	24195

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish Products in the County of Shelburne, Province of Nova Scotia, for the Year 1906.

Number.	DISTRICTS.	KINDS OF FISH.													TOTAL VALUE OF ALL FISH.	Number.						
		Lobsters, preserved in cans, lb.	Lobsters, fresh in shell cwt.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Smelts, lb.	Alewives or Gaspereau brls.	Eels, brls.			Clams, brls.	Flounders, lb.	Tom-cod or frost fish, lb.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.
1	Shelburne County.																					
1	Wood's Harbour	148800	2100	10630	.....	800	300	.....	250	225	.....	.....	.....	.....	.....	.....	.....	.....	220	8500	86,072 50	1
2	Shag Harbour and Bear Point	122160	1300	900	.....	1100	400	.....	1525	1800	220	.....	25	.....	.....	.....	.....	.....	380	1600	62,589 00	2
3	Cape Island	174860	10000	27100	.....	9500	3700	.....	1800	38050	.....	.....	.....	.....	.....	.....	.....	.....	2400	11000	349,780 00	3
4	Barrington	.....	1200	9100	.....	1400	275	.....	4200	400	330	.....	380	25	50	.....	.....	.....	160	2600	77,645 00	4
5	Port Latour and Baccaro	960	4100	18000	.....	1800	2000	.....	1375	1760	.....	.....	.....	50	.....	.....	.....	.....	390	2300	160,434 00	5
6	Cape Negro Island and Port Clyde	46944	600	19200	.....	1200	820	.....	900	.....	450	.....	165	.....	.....	.....	.....	.....	750	2000	133,257 00	6
7	Port Saxon, N. E. and N. W. Harbour	.....	150	900	3	1200	300	100	45	300	1200	400	45	7	20	500	400	4	150	25	12,015 50	7
8	Black Point, Red Head and Round Bay	.....	800	300	2	500	220	.....	100	1000	300	200	30	6	15	1000	400	15	400	110	14,535 00	8
9	Roseway, McNutt's Island and Carleton	.....	350	450	2	500	300	8	360	500	300	300	10	12	12	2000	500	12	300	100	14,697 00	9
10	Gunning Cove to Birchtown	.....	216	75	.....	1000	45	.....	15	250	300	100	5	5	5	1000	1000	.....	60	50	8,395 50	10
11	Shelburne and Sandy Point	13920	300	5100	5	5000	230	25	150	2450	5000	300	15	10	350	1500	1200	10	5000	125	45,338 50	11
12	Jordan	.....	240	210	12	2000	110	.....	85	725	1000	1500	15	4	5	1000	1200	2	2000	100	14,372 50	12
13	Lockeport	102672	3200	6710	10	5000	800	100	3190	18000	600	500	5	7	150	1000	1000	10	3000	500	130,293 00	13
	Totals	610316	24556	89105	24	31000	9500	233	13795	65460	9700	3300	635	126	607	8000	5700	53	13410	29010	.....	.....
	Values	\$152579	245560	445525	240	930	33250	699	41985	6546	970	165	2780	1260	1214	240	171	106	4023	43515	1,118,484 50	.....

RETURN showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., and the Quantity of Fish in the County of Yarmouth, Province of Nova Scotia, in the Year 1906.

Number.	FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.						LOBSTER PLANT.		KINDS OF FISH.						Number.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Vessels.			Boats.			Gill Nets.			Trawls.			Hand Lines.		Canneries.	Salmon, fresh, lb.	Herring, fresh, lb.	Herring, smoked, lb.	Mackerel, fresh, lb.	Lobsters, preserved in cans, lb.		Lobsters, fresh in shell, cwt.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Yarmouth, Province of Nova Scotia,
for the Year 1906.

DISTRICTS.	KINDS OF FISH.																			Number.	Total VALUE OF ALL FISH.		
	Cod dried, cwt.	Cod, tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, smoked, lb.	Hake, dried, cwt.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alewives or Caspe- reau, brls.	Eels, brls.	Clams, brls.	Flounders, lb.	Tom-cod or frost fish, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.			Fish as manure, brls.	\$ cts.
Yarmouth County.																							
1 Yarmouth.....	4140	30	520400	7500	55	2070	94500	700	21000	75	3000	18	200	3000	400	200	379396	00
2 Port Maitland.....	1680	25	320300	23700	.....	2850	11320	.....	.....	1400	.....	.....	125	.....	.....	14	2500	2500	120	500	58226	00
3 Sandford.....	538	20	164640	12000	.....	80	2780	.....	.....	1050	.....	.....	125	.....	.....	.....	1200	600	90	300	20239	30
4 Arcadia.....	425	.....	69120	.....	32	100	500	1200	.....	6900	.....	30	60	.....	1800	.....	15	50	.....	.....	20847	60
5 Pinkney Pt. and Coneau Hill.....	167	26090	80	130	330	1500	25	130	15	55	195	40	15112	70
6 Tusket.....	50	.....	.....	.....	.....	.....	.....	18000	100	17500	2800	80	70	.....	12000	30	30	.....	500	.....	19495	50
7 Tusket Wedge.....	643	18	99750	.....	140	550	2140	1000	.....	1250	24	.....	80	.....	8000	60	500	1500	150	.....	37531	70
8 Pubnico.....	7880	45	489000	.....	5000	.....	160	14400	.....	15400	105	25	100	.....	2000	70	40	3600	220	.....	107713	50
9 Argyle.....	152	8	16800	.....	20	.....	.....	17500	.....	1750	500	75	60	.....	.....	.....	.....	.....	160	.....	4094	50
10 Eel Brook.....	.....	.....	.....	.....	.....	.....	.....	10800	.....	1400	560	60	50	.....	4000	.....	.....	.....	125	.....	4997	50
11 Salmon River.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	15667	146	1706100	43200	337	10780	111730	63000	100	70410	3989	245	995	3000	35800	177	4530	11445	1955	1000	.....	.....
Values.....	78335	1460	51183	2592	981	32340	11173	6360	1000	3520	15956	2959	1990	90	1074	708	9060	3434	2932	500	672601	80

RETURN showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., and the Quantity of Fish in the County of Digby,
Province of Nova Scotia, for the Year 1906.

Number.	DISTRICTS.				FISHING VESSELS AND BOATS.								FISHING GEAR OR MATERIALS.								LOBSTER PLANT.		KINDS OF FISH.						Number.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Vessels.				Boats.				Gill-Nets.				Seines.				Trawls.				Wiers.				Hand-Lines.					Canner-ies.		Herring, salted, bbls.	Herring, fresh, lb.	Herring, smoked, lb.	Mackerel, fresh, lb.	Mackerel, salted, bbls.	Lobsters, preserved in cans, lb.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	%	%		%	%							%	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
<i>Digby County.</i>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
1	Beaver River and Cape St. Mary	16	285	5250	82	33	1550	69	82	2460	490</

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Digby, Province of Nova Scotia, for the Year 1906.

KINDS OF FISH AND FISH PRODUCTS.																						
Districts.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Haddock, smoked, finnan haddies, lb.	Hake, dried, cwt.	Hake, sounds, lb.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Smelts, lb.	Clams, brls.	Flounders, lb.	Tom-cod or frost fish, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	TOTAL VALUE OF ALL FISH.	Number.
Digby County.																						
1 Beaver River and Cape St. Mary.	490	1256	.....	.....	460	*	.....	.....	154	5500	.....	.....	40	.....	.....	.....	.....	120	.....	180	26,522 00	1
2 Moteghan and River.	318	460	.....	.....	110	.....	.....	.....	100	400	.....	.....	80	.....	.....	.....	.....	40	.....	160	21,407 30	2
3 Saulnerville and Co-manauville.	546	404	.....	.....	125	.....	.....	.....	150	.....	.....	.....	40	.....	.....	.....	.....	.....	.....	130	19,552 50	3
4 Grosses Coques and Church Point.	324	495	.....	.....	40	.....	.....	.....	530	320	.....	.....	380	.....	.....	.....	.....	.....	.....	240	11,182 00	4
5 Belliveau Cove and New Edinburgh.	250	153	.....	.....	.....	.....	.....	.....	132	.....	.....	800	570	.....	.....	.....	.....	.....	.....	125	6,988 50	5
6 Weymouth to Brighton.	290	515	22	143000	.....	.....	20	18	560	150	130	31700	562	820	10000	8	290	80	570	1005	22,641 60	6
7 Digby and Smith's Cove.	760	4520	22	57650	2230	1049600	12480	5050	2034	141050	2030	8100	8350	800	450	13	6330	4060	1200	5000	20,427 00	7
8 Bay View and Culboden.	625	1175	23	190000	.....	.....	1950	1100	500	3220	40	.....	.....	630	.....	37	470	630	644	670	28,854 50	8
9 Gulliver's Cove, Ross-way and Waterford.	740	1075	30	179700	500	.....	2820	1450	333	4100	50	2000	78	1150	.....	210	1270	800	530	1410	43,286 00	9
10 Centreville.	420	3820	25	320800	116	173750	10150	5100	577	7120	.....	.....	6	350	250	300	540	3220	800	3000	97,191 00	10
11 Sandy and Mink Coves.	765	740	11	68000	210	70000	3110	1400	467	2150	35	900	25	880	200	10	125	1070	460	930	42,485 90	11
12 Little River and Whale Cove.	1435	1550	14	259000	1600	140000	6520	4200	127	4200	.....	.....	30	1030	.....	50	2500	1800	900	6000	82,623 00	12
13 Tidville & East Ferry.	425	620	8	90600	150	.....	1250	940	755	1100	30	.....	.....	520	200	70	1550	1370	1070	2500	25,716 00	13
14 Tiverton and Central Grove.	1300	7200	74	238000	540	50000	20525	6050	4540	11300	155	.....	.....	900	200	190	7700	1150	2320	6700	168,689 00	14
15 Freeport.	900	22420	100	200000	4000	.....	1080	4000	8653	32000	40	.....	100	500	.....	60	4820	7800	900	6000	203,244 00	15
16 Westport.	1250	6623	15	132000	1300	10000	3220	3000	17994	100000	.....	.....	.....	600	2500	500	4450	7320	825	6000	143,640 50	16
Totals.	10838	53020	344	1879750	11381	1495550	66125	32308	37006	312610	2510	43500	10261	8260	13800	1448	30035	29480	10219	40050	.....	.....
Values.	108380	265100	3440	56392	39834	89721	198375	8077	112818	31261	251	2175	20522	248	414	5792	60070	8841	15328	20025	1,155,458 80	80

* In Nos. 1 to 5 add 14,200 cases finnan haddies, \$1,420.

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Annapolis, Province of Nova Scotia, for the Year 1906.

Number.	Districts.	KINDS OF FISH.												Total VALUE OF ALL FISH.	Number.		
		Salmon, fresh, lb.	Herring, salted, brls.	Herring fresh, lb.	Herring, smoked, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Hake sounds, lb.	Pollock, cwt.	Trout, lb.			Fish oil, galls.	Fish as bait, brls.
<i>Annapolis County.</i>																	
1	Margaretsville.....	4000	300	1000	.....	10	400	1000	100	100	50	95	.....	100	20	75	4,685 00
2	Port George.....	.....	300	900	.....	150	300	1000	500	100	50	50	.....	60	40	100	7,679 50
3	Port Lorne.....	.....	500	1600	.....	200	400	1500	300	200	100	100	.....	125	50	75	8,680 00
4	Hampton.....	.....	475	800	.....	200	500	1000	325	300	150	150	.....	150	50	40	9,578 00
5	Phinney Cove.....	.....	400	1000	.....	175	300	900	600	800	200	200	.....	200	60	50	10,612 00
6	Packers' Cove.....	.....	450	1000	.....	200	400	1000	900	1000	400	300	.....	300	60	75	13,657 50
7	Hillsburn.....	.....	200	600	.....	175	300	800	1000	1200	450	200	.....	200	40	50	12,237 50
8	Litchfield.....	.....	250	700	.....	200	225	900	800	1500	400	175	.....	175	35	60	12,469 00
9	Thorn's Cove.....	.....	.....	.....	.....	100	300	1500	1100	1600	450	200	.....	300	40	65	12,000 00
10	Victoria Beach.....	.....	50	.....	.....	150	600	6000	1000	4000	600	900	.....	400	60	.....	23,490 00
11	Clementsport.....	.....	20	3000	.....	75	.....	.....	100	100	.....	25	.....	.....	.....	.....	1,260 00
12	Lequille and Round Hill Rivers, and inland lakes.....	1100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1200	.....	.....	.....	340 00
Totals.....		5100	2945	7000	3000	1560	3800	15600	6725	10900	2850	2395	1200	2010	455	590	.....
Values.....		1020	14725	70	60	15660	19000	468	23537	32700	713	7185	120	603	682	295	116,778 50

RETURN showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., and the Quantity and Value of all Fish in the County of King's, Province of Nova Scotia, for the Year 1906.

Number.	DISTRICTS.				FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.								KINDS OF FISH.				Number.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Vessels.		Boats.		Gill-nets.		Seines.		Trawls.		Weirs.		Hand Lines.		Herring, salted, brls.	Herring, fresh, lb.	Herring, smoked, lb.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Number.	Value.	Men.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.				Value.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of King's, Province of Nova Scotia, for the Year 1906.

DISTRICTS.	KINDS OF FISH.																	TOTAL VALUE OF ALL FISH.	Number.			
	Mackerel, fresh, lb.	Mackerel, salted, brls.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Haddock, fresh, lb.	Haddock, dried, cwt.	Haddock, smoked fin- nan baddies, lb.	Hake dried, cwt.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Alwives or Caspereau, brls.	Bass, lb.	Clams, brls.	Coarse and mixed fish, brls.	Fish oil, galls.			Fish as bait, brls.	Fish as manure, brls.	
<i>King's County.</i>																						
1 Morden and vicinity	6000	10	60	100	2600				100	700				50	300		1000	350	1000		8,788 00	1
Victoria and Ogilvie	5000		120	45	300	4		2	30	200					200		700	350			6,504 00	2
Harbourville	800		60	30	4000	5		5	10	500				15	200		2000	10	300	500	9,261 50	3
Canada Creek	3000		180	300	7000	10		7	100	800				20	500		1000	20	450	8000	15,057 00	4
Chipman Brook and Hunting Pt.	5000		123	110	14700	16		12	500			2		20	450		2700	415	9900	22,210 50	5	
Hall's Harbour	500	4	120	250	50400	100	400	48	650	1300		4		25	450		9000	40	550	5000	33,512 00	6
Peace Point and Sheffield Vault.	400		70	20	800				110					25	350			310	1600		7,083 00	7
Baxter Harbour	1200	7	5	350	40000	50		30	70	200				6	200			400	1000		8,848 00	8
Whalen Beach and Well's Cove.	11000	2	16	80	10700			8	103	840		3		25	400	10		95	800		6,355 50	9
Scott's Bay	80000	25	100	320	32000			15	50	1000		40		50	300	1200		800	8000		24,290 00	10
Blomidon and vicinity.	40000			15	2000				30	900		4		4	50	20	700	50	1000		9,525 00	11
Star's Point to Wolfville.				27	3000				7	1300		124		10		20		16	20		3,271 30	12
Avonport to County line includ- ing Inland waters				60					13	8506		12		100	100						2,419 00	13
Totals	152900	48	854	1707	107500	185	400	127	1773	6453	8500	194		396	3450	1230	17100	70	4086	36820		
Values	18348	720	8540	8535	5025	647	24	381	5319	645	850	1940		1584	345	2460	34200	21	6129	18410	157,114 80	

RECAPITULATION

OF the Yield and Value of the Fisheries in District No. 3, Nova Scotia,
for the Year 1906.

Kinds of Fish.	Quantity.	Rate.	Value.	Amount.
		\$ cts.	\$ cts.	\$ cts.
Salmon, fresh..... Lb.	229,625	0 20	45,925 00	
" smoked..... "	2,695	0 20	539 00	
Herring, salted..... Brls.	51,946	5 00	259,730 00	46,464 00
" fresh..... Lb.	2,441,670	0 01	24,416 70	
" smoked..... "	703,930	0 02	14,078 60	
Mackerel, fresh..... "	904,495	0 12	108,539 40	298,225 30
" salted..... Brls.	9,153	15 00	137,295 00	
Lobsters, preserved in cans..... Lb.	1,805,680	0 25	451,670 00	245,834 40
" fresh in shell..... Cwt.	65,059	10 00	650,590 00	
Cod, dried..... "	284,599	5 00	1,422,995 00	1,102,260 00
" tongues and sounds..... Brls.	644	10 00	6,440 00	
Haddock, fresh..... Lb.	3,823,155	0 03	114,694 65	1,429,435 00
" dried..... Cwt.	39,041	3 50	136,643 50	
" finnan haddies..... Lb.	1,539,850	0 06	92,391 00	
Hake, dried..... Cwt.	79,772	3 00	239,316 00	343,729 15
" sounds..... Lb.	35,378	0 25	8,844 50	
Pollock..... Cwt.	68,732	3 00		248,160 50
Halibut..... Lb.	661,123	0 10		206,196 00
Trout..... "	92,785	0 10		66,112 30
Shad..... Brls.	299	10 00		9,278 50
Smelts..... Lb.	134,510	0 05		2,990 00
Bass..... "	3,450	0 10		6,725 50
Alewives..... Brls.	5,263	4 00		345 00
Eels..... "	548	10 00		21,052 00
Clams..... "	13,210	2 00		5,480 00
Flounders..... Lb.	245,260	0 03		26,420 00
Tom-cod or frost fish..... "	73,900	0 03		7,357 80
Squid..... Brls.	1,680	4 00		2,217 00
Mixed fish..... "	53,736	2 00		6,720 00
Fish oil..... Galls.	107,895	0 30		107,472 00
" as bait..... Brls.	48,905	1 50		32,368 50
" as fertilizer..... "	78,630	0 50		73,357 50
Seal skins..... No.	50	1 25		39,315 00
Total for 1906.....				62 50
" 1905.....				4,327,577 95
Decrease.....				4,499,053 58
				171,425 53

SESSIONAL PAPER No. 22

RECAPITULATION

Of the Value of Fishing Vessels, Boats, Nets, &c., in District No. 3, Nova Scotia, for the Year 1906.

Articles.	Value.	Totals.
	\$	\$
444 fishing vessels (17,939 tons).....	971,570	
6,270 " boats.....	181,310	
925 " dories.....	12,350	
27,803 gill-nets (600,265 fathoms).....	210,960	
251 seines (27,680 fathoms).....	38,660	
154 trap-nets.....	49,780	
67 weirs.....	14,380	
3,726 trawls.....	71,824	
37 smelt-nets.....	824	
22,405 hand lines.....	16,215	
		1,567,813
58 lobster canneries.....	51,400	
174,692 " traps.....	159,767	
		211,167
163 freezers and ice houses.....	36,680	
1,816 smoke and fish houses.....	103,405	
776 fishing piers and wharfs.....	269,905	
134 " tugs and smacks.....	88,435	
		498,425
Total.....		2,277,405

STATEMENT of Persons employed in the Fisheries of the above District (No. 3), 1906.

	No.
Men in vessels.....	4,109
" boats.....	8,364
Persons employed in lobster canneries.....	1,069
Total	13,542

RECAPITULATION BY COUNTIES

Showing the Number of Vessels and Boats and the Quantity and Value of all Fishing Materials used in the Fishing Industry in the Province of Nova Scotia, for the Year 1906.

Number.	COUNTIES.										FISHING VESSELS AND BOATS.										FISHING GEAR OR MATERIALS.									
	DISTRICT NO. 1.										DISTRICT NO. 2.										DISTRICT NO. 3.									
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Value.	Men.	Number.	Value.	Men.	Number.	Value.	Men.	Number.	Value.	Men.	Number.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
1	Richmond	61	1311	33050	370	1088	21750	1819	9831	194870	63720	6	95	90	1	1000	606	3905	1	1	606	3905	1	1	606	3905	1	1	606	3905
2	Cape Breton	21	379	10175	100	529	14763	898	2485	58735	21065	1	150	600	1	400	1507	6655	2	2	1507	6655	2	2	1507	6655	2	2	1507	6655
3	Victoria	8	131	2525	28	600	10425	949	1390	36111	12695	1	150	600	13	8600	389	3020	5	5	389	3020	5	5	389	3020	5	5	389	3020
4	Inverness	23	280	2880	96	603	13630	940	1164	44315	17067	1	120	400	1	600	590	3365	4	4	590	3365	4	4	590	3365	4	4	590	3365
5	Antigonish	1	17	200	4	228	4689	291	749	14826	3342	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	Colchester	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	Cumberland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Guy-borough	64	1054	58550	319	1948	77345	1952	17460	355390	170265	28	2984	6465	46	27000	2906	29445	8	8	2906	29445	8	8	2906	29445	8	8	2906	29445
9	Halifax	72	1784	55815	413	2548	51630	2378	13899	355281	64721	388	42890	83935	32	3920	1186	5186	9	9	1186	5186	9	9	1186	5186	9	9	1186	5186
10	Hants	2	80	800	5	121	1950	136	187	6000	2430	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	Pictou	2	16	900	3	287	8415	347	306	12014	4717	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Lunenburg	142	11405	634090	2119	1788	45450	1883	4276	110200	50445	171	15000	25000	137	27330	615	25786	12	12	615	25786	12	12	615	25786	12	12	615	25786
13	Queen's	7	183	8500	35	385	7400	551	1173	22000	5000	11	520	2550	10	9750	5	5013	...	...	...	...	...	...	...	...	...	...	...	...
14	Shelburne	131	2320	96575	684	4398	68320	2121	15925	322800	89830	3	300	550	2	2000	462	2310	14	14	462	2310	14	14	462	2310	14	14	462	2310
15	Yarmouth	84	1921	85330	633	1011	15160	1685	4765	95300	47650	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	Digby	65	1838	81250	572	1148	37850	1598	1054	23370	5870	42	2940	5985	1	700	1812	35637	16	16	1812	35637	16	16	1812	35637	16	16	1812	35637
17	Amnapolis	8	165	4200	45	196	4360	322	424	20650	9730	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	King's	7	107	1625	21	144	2770	204	186	5645	2435	24	8920	4775	...	...	72	1050	17	17	72	1050	17	17	72	1050	17	17	72	1050
Totals		700	23042	1137465	5454	14636	394768	18752	76107	1767757	583394	576	73464	130175	288	98200	11290	125478												

SESSIONAL PAPER No. 22

RECAPITULATION BY COUNTIES Showing the Number of Vessels and Boats and the Quantity and Value of all Fishing Materials used in the Fishing Industry in the Province of Nova Scotia, for the Year 1906.

Number.	COUNTIES.	FISHING GEAR OR MATERIALS.				LOBSTER PLANT.				OTHER FIXTURES USED IN FISHERIES.												
		Weirs.		Smelt-nets.		Hand Lines.		Canneries.		Traps.		Persons employed in canneries.		Freezers and Ice-houses.		Smoke and fish houses.		Piers and wharfs.		Tugs Steamers and smacks.		
		Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
<i>District No. 1.</i>																						
1	Richmond.....	83	670	5042	4440	11	12400	46050	36725	270	3	3050	838	18275	187	10870	26	3355	1	300	5	
2	Cape Breton.....	3	9	2394	1290	15	21600	33360	23475	357	5	3190	217	7479	126	17770	31	9040	2	900	6	
3	Victoria.....	50	200	2101	2200	14	5300	16553	13785	180	11	5125	178	10405	43	12461	9	1160	3	1160	3	
4	Inverness.....	20	30	1733	1555	20	14520	55400	29980	337	15	5180	156	6485	58	68010	13	4250	4	4250	4	
<i>District No. 2.</i>																						
5	Antigonish.....	2	90	295	145	6	6300	18400	10350	149	3	4700	114	1149	2	2000	1	300	5	300	5	
6	Colchester.....	3	150	13	195	12	10	2	2000	2000	26	1	50	22	1630	.....	.....	.....	.....	.....	.....
7	Cumberland.....	3	170	201	2668	378	378	32	2350	47120	33830	313	1	17	2329	.....	.....	.....	.....	.....	.....
8	Guysborough.....	10	325	26	497	5128	4485	38	29850	70700	62490	383	31	122175	705	107510	215	137910	12	50260	8	
9	Halifax.....	11	55	14	388	4117	2042	19	30550	74050	37380	240	10	10260	876	61126	607	16696	13	7890	9	
10	Hants.....	1	75	130	90	23	30550	59800	36429	333	20	1595	2	40	4	105	2	3700	11	3700	11	
11	Pictou.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<i>District No. 3.</i>																						
12	Lunenburg.....	.....	.....	.....	.....	6	2500	15030	6780	109	5	1600	520	31425	366	89360	12	1140	12	1140	12
13	Queen's.....	.....	.....	.....	.....	9	6700	15800	11800	160	30	1400	250	7550	63	3890	12	8400	13	8400	13
14	Shelburne.....	8	40	1360	800	19	14000	52000	54900	311	12	6650	359	20840	201	26200	44	19700	14	19700	14	
15	Yarmouth.....	5	750	7700	7200	19	14100	44930	44930	285	32	15690	111	9720	45	63600	49	40770	15	40770	15	
16	Digby.....	27	5850	20	604	2457	2045	12	14300	9400	6925	204	44	9705	334	24200	107	86855	17	12425	16	
17	Annapolis.....	11	1800	565	565	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	King's.....	24	5980	.....	588	.....	.....	1722	1722	.....	27	785	92	3150	.....	.....	.....	.....	.....	.....	.....
Totals.....		115	15355	495	8461	43793	32908	238	226820	600125	446192	3658	262	192305	4941	319893	2018	535727	241	168410	241	168410

7-8 EDWARD VII., A. 1908

RECAPITULATION BY COUNTIES.

Showing the Kinds and Quantities of Fish and Fish Products in the Province of Nova Scotia, for the Year 1906.

Number.	COUNTIES.	Salmon, fresh, lb.	Salmon, preserved in cans, lb.	Salmon, smoked, lb.	Herring, salted, brls.	Herring, fresh, lb.	Herring, smoked, lb.	Mackerel, fresh, lb.	Mackerel, salted, brls.	Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Haddock, smoked flunnan had- dies, lb.	Hake, dried, cwt.	Hake, sounds, lb.	Number.
<i>District No. 1.</i>																			
1	Richmond.....	4700	540	1200	7336	119606		276890	13085	151656	2176	19111	108	607800	8909	228000	857	417	1
2	Cape Breton.....	19045		2400	8262	28312		35648	864	234608	10422	17994	19	8700	1667		46		2
3	Victoria.....	32045			1349	147500		27800	756	137208	10	8870	3	450	5720		191		3
4	Inverness.....	113420	6064		3155	538750		132700	4271	393712	400	10051	25	10140	1345		2112	860	4
<i>District No. 2.</i>																			
5	Antigonish.....	72950			564	118000		8827	162	137328		878		600	127		1051	2010	5
6	Colchester.....	62195								33264		221		3200	21		10		6
7	Cumberland.....	3550			1285	750000	70000	3500		363372	193	134		9200					7
8	Guysborough.....	77760	200	8800	13163	1024800		1606255	9799	487220	2551	25543	59	5097180	6649	799700	5563	6026	8
9	Halifax.....	29120		9875	26342	114500	6000	1403000	2739	379632	7141	19417	72	706500	2212	3000	2036	1304	9
10	Hants.....	26600			15							65							10
11	Pictou.....	43000			400	154100		10000		476536	4	457		7200			252		11
<i>District No. 3.</i>																			
12	Imperial.....	34025		625	15780	27600		15645	6470	124460	1906	115290	130	17875	10189	600	2060	220	12
13	Queen's.....	27200		2070	6250	4200	3000	462000	745	91920	3245	6010		5380	1061	300			13
14	Shelburne.....	23200			21398	16500	8000	4800	1613	610316	24556	89105	24	31000	9500		233		14
15	Yarmouth.....	28600				69870	3230	130000		807320	22100	15667	146	1706100					15
16	Digby.....				3116	1965900	460700	139150	277	172464	10838	53020	344	1879750	11381	1495350	66125	32308	16
17	Amnapolis.....	5100			2945	7000	3000				1560	3800		15600	6725		10900	2850	17
18	King's.....	113500			2433	350600	2255000	152900	48		854	1707		167500	185	400	127		18
Totals.....		714210	6804	24970	114417	5437232	7799330	4408525	40829	4595816	87956	386840	430	10274125	45691	2570550	91890	45935	

SESSIONAL PAPER No. 22

RECAPITULATION BY COUNTIES.

Showing the Kinds and Quantities of Fish and Fish Products in the Province of Nova Scotia, for the Year 1906.

COUNTIES.		Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.	Alewives or Caspereau, brls.	Bass, lb.	Eels, brls.	Oysters, brls.	Clams, brls.	Flounders, lb.	Tom cod or frost fish, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Seal skins, number.	TOTAL VALUE OF ALL FISH.	Number.	
District No. 1.																						
1	Richmond	3319	25950	5080	...	24700	731	...	491	...	247	242000	47200	1152	2635	12255	1681	...	...	532,365 00	1
2	Cape Breton	1634	4303	6780	37	15000	265	...	247	68	...	8700	5500	7	116	8394	2312	...	...	287,038 33	2
3	Victoria	2615	4570	3075	...	6000	2	...	103	219	1	...	2450	272	292	3715	3214	...	...	140,167 75	3
4	Inverness	337	13580	5809	...	12815	30	...	404	750	122	...	3400	2420	1538	3080	4748	730	...	312,983 05	4	
District No. 2.																						
5	Antigonish	16	...	670	...	5800	12	1000	59	79	3	19400	...	324	598	1315	1218	1170	...	71,595 24	5	
6	Colchester	5	3500	12600	81	7990	105	3150	200	328	750	...	...	...	49	187	36	300	...	28,584 10	6
7	Cumberland	73	2800	3450	250	63500	350	50	15	...	...	1650	...	...	2026	62790	6980	65	...	120,944 10	7
8	Guysborough	35014	92625	18970	11	37445	860	4800	1105	...	82	15100	8700	11077	2026	62790	6980	16203	26	1,161,141 75	8	
9	Halifax	2706	77670	13615	...	50800	200	...	237	3	6194	16210	13000	213	302	10135	2459	4570	80	668,166 50	9	
10	Hants	12	...	2150	32	...	260	...	...	...	...	1000	...	...	18	...	...	...	...	7,353 50	10
11	Pictou	...	...	2700	...	56350	45	200	111	75	15	...	2800	...	...	...	752	4486	...	142,362 50	11
District No. 3.																						
12	Lunenburg	1514	159700	675	...	9800	70	...	59	...	77	225000	18000	...	1963	50110	2465	170	...	907,570 15	12	
13	Queen's	869	5170	6600	5	7500	113	...	68	...	40	1000	...	...	55	1370	715	...	50	200,169 40	13
14	Shelburne	13795	65460	9700	...	3300	695	...	126	...	697	8000	5700	65	53	33410	29010	...	...	1,118,484 50	14
15	Yarmouth	10780	111730	63600	100	70410	3989	...	295	...	995	3000	35800	177	4530	11445	1955	1000	...	672,001 80	15	
16	Digby	37606	312610	2510	...	43500	...	...	10261	8260	...	...	13800	1448	30035	29480	10219	40050	...	1,155,458 80	16
17	Annapolis	2395	...	1200	2010	455	590	...	116,778 50	17
18	King's	1773	6453	850	194	...	396	3450	...	...	123	...	...	...	17100	70	4086	36820	...	157,114 80	18
Totals		114 663	924848	167675	710	415510	8124	12650	3329	1722	20624	694210	157950	17218	61329	209921	73132	106739	156	7,799,159 92		

RECAPITULATION.

OF the Yield and Value of the Fisheries of the whole of Nova Scotia for the Year 1906.

Kinds of Fish.	Quantity.	Rate.	Value.	Amount.
		\$ cts.	\$ cts.	\$ cts.
Salmon, fresh..... Lb.	714,210	.....	134,381 50	
" preserved in cans..... "	6,804	0 15	1,020 60	
" smoked..... "	24,970	0 20	4,994 00	140,396 10
Herring, salted..... Brls.	114,417	.....	540,849 50	
" fresh..... Lb.	5,437,232	0 01	54,372 32	
" smoked..... "	779,930	0 02	15,598 60	610,820 42
Mackerel, salted..... Brls.	40,829	15 00	612,435 00	
" fresh..... Lb.	4,468,525	0 12	536,223 00	1,148,658 00
Lobsters, preserved in cans..... Lb.	4,595,816	0 25	1,148,954 00	
" fresh in shell..... Cwt.	87,956	.....	784,853 00	1,933,807 00
Cod, dried..... Cwt.	386,840	5 00	1,934,200 00	
" fresh..... Lb.	266,400	0 03	7,992 00	
" tongues and sounds..... Brls.	930	10 00	9,300 00	1,951,492 00
Haddock, dried..... Cwt.	64,691	3 50	226,418 50	
" fresh..... Lb.	10,274,125	0 03	308,223 75	
" smoked (finnan haddies)..... "	2,570,550	0 06	154,233 00	688,875 25
Hake, dried..... Cwt.	91,938	.....	269,731 00	
" sounds..... Lb.	45,995	0 25	11,498 75	281,229 75
Pollock..... Cwt.	114,520	3 00	.....	343,559 00
Halibut..... Lb.	924,848	0 10	.....	92,484 80
Trout..... "	167,675	0 10	.....	16,767 50
Bass..... "	12,650	0 10	.....	1,265 00
Shad..... Brls.	710	10 00	.....	7,100 00
Alewives..... "	8,124	4 00	.....	32,496 00
Eels..... "	3,320	10 00	.....	33,200 00
Smelts..... Lb.	415,510	0 05	.....	20,775 50
Oysters..... Brls.	1,722	6 00	.....	10,332 00
Clams..... "	20,624	.....	.....	41,988 00
Flounders..... Lb.	694,210	0 03	.....	20,826 30
Tom cod or frost fish..... "	157,950	0 03	.....	4,738 50
Squid..... Brls.	17,218	4 00	.....	68,872 00
Coarse and mixed fish..... "	61,329	2 00	.....	122,658 00
Dogfish..... "	.....	.....	.....	580 00
Fish oil..... Galls	209,921	0 30	.....	62,976 30
" as bait..... Brls.	73,132	1 50	.....	109,698 00
" as fertilizer..... "	106,739	0 50	.....	33,369 50
Seal skins..... No.	156	1 25	.....	195 00
Total for 1906.....	.....	.....	.....	7,799,159 92
Total for 1905.....	.....	.....	.....	8,259,085 28
Decreased.....	.....	.....	.....	459,925 36

SESSIONAL PAPER No. 22

RECAPITULATION.

Of the Capital invested in Fishing Vessels, Boats, Nets and other implements in all
Nova Scotia, for the Year 1906.

Number and Description of Articles.	Value.		Total.	
	\$	cts.	\$	cts.
700 fishing vessels (23,042 tons).....	1,137,465	00	1,544,583	00
14,636 " boats.....	394,768	00		
926 " dories.....	12,350	00		
76,107 gill-nets (1,707,757 fathoms)	583,394	00	1,005,371	00
676 seines (73,464 fathoms).....	130,175	00		
104 " spillers.....	11,400	00		
288 trap-nets.....	98,200	00	673,012	00
11,290 trawls	125,478	00		
115 weirs	15,355	00		
495 smelt bag-nets	8,461	00	1,306,335	00
43,793 hand-lines.. ..	32,908	00		
238 lobster canneries	226,820	00		
600,125 " traps.....	446,192	00	1,306,335	00
262 fish freezers or ice-houses.....	192,305	00		
4,941 smoke and fish houses.....	319,893	00		
2,018 fishing piers and wharfs.	535,727	00	1,306,335	00
241 fishing tugs and smacks.....	168,410	00		
Total			4,529,301	00

Statement of persons engaged in the Fisheries of all Nova Scotia, 1906.

	No.
Men in fishing vessels	5,454
" boats	18,752
Persons in lobster factories.....	3,658
Total	27,864

APPENDIX No. 3.

NEW BRUNSWICK.

District No. 1, comprising the counties of Charlotte and St. John. *Inspector John Calder, Campobello.*

District No. 2, comprising the counties of Albert, Westmorland, Kent, Northumberland, Gloucester and Restigouche. *Inspector R. A. Chapman, Moncton.*

District No. 3, comprising the counties of King's, Queen's, Sunbury, York, Carleton and Victoria. *Inspector H. E. Harrison, Fredericton.*

DISTRICT No. 1.

REPORT ON THE FISHERIES OF DISTRICT No. 1, NEW BRUNSWICK,
FOR THE YEAR 1906.

CAMPOBELLO, May 6, 1907.

To the Dominion Commissioner of Fisheries.
Ottawa.

SIR,—I have the honour to submit herewith my first annual report on the fisheries of District No. 1, New Brunswick for the year ending December 31, 1906, with the statistics of the different subdivisions and synopses of the reports of their officers.

I have to report a decrease in the value of the yield for the year, as compared with the statistics for 1905, of \$217,711: due entirely to two causes: first, the great falling off in the catch of sardine herring; second, the vast difference in the prices paid for these fish during the present year, and the statistical price for 1905. I have put the value of these fish at \$1.50 per barrel, which amount I think is a fair average value. The reports for 1905 place them at \$2 per barrel, a greater average price than they brought. Therefore, while the aggregate of the catch of sardine herring for 1906, is of less value than that of 1905, the actual difference, is not nearly so great, as one would be led to believe from merely reading the figures for the two years.

Nearly all other branches of the fisheries were good, high prices were paid, and all the fishermen, with the exception of those engaged in the sardine business, report a very prosperous season.

HERRING.

An increase of 414 brls., is reported in the catch of large herring salted in barrels. The price of these fish was quite low, and a poor demand existed, or otherwise the volume of business done in the branch, would have been much greater.

SESSIONAL PAPER No. 22

It is gratifying to report a large increase in the amount of herring smoked during the year, over that of 1905. That year the total output was 4,565,200 lbs., with a total value of \$91,304. This year the output is 6,343,666 lbs., an increase of 1,780,465 lbs., and \$35,609 in value. You will notice a decrease in the catch of sardine herring, as compared with the returns for 1905 of 108,971 barrels. This is not so serious an affair as it looks from the face of it. During 1905, herring suitable for sardines were very plentiful, the oldest fishermen say they were never, in their time, any more so. The American canners, with the advantages of machines for making and sealing their cans, which were successfully used for the first time that season, packed the enormous total of 100,500,000 cans, fully 33 per cent in excess of the pack of any previous year, and also a far greater amount than they could find a market for. Consequently when the season of 1906 began, the canners had nearly all their store houses full of these goods, kept over from 1905. Following the example set by the great trusts of that country, the American canners held regular meetings, and entered into a hard and fast agreement to curtail their pack for the season, allowing each factory to take so many hogsheads of herring per week. In consequence of this there were times when plenty of herring were in the weirs, and no one to buy them. The canners took advantage of the situation and paid the fishermen poor prices. This has had the effect of opening the eyes of our fishermen, to the necessity of united action on their part.

Acting under the authority of a Bill, enacted at the Session of the Provincial Legislature, they have joined themselves into a body, to be known as 'The Weir Fishermen's Union.' They have set a standard price of \$8 per hogshead upon their fish for the coming season. It is to be sincerely hoped that their efforts in this direction will be crowned with success.

SALMON.

It is pleasing to report a large increase in this important branch of the fisheries. The officers report that salmon are getting more plentiful each year. They attribute this to the work of the fish culture department.

POLLOCK.

You will also notice a large increase in the yield of this fishery, due in a great measure to the unsatisfactory conditions prevailing in the sardine industry, compelling the men who generally engage in that, to turn their attention to pollock fishing. The yield for the year is 29,132 cwts., an increase over 1905, of 6,551 cwts. These fish commanded a good price all the season. Dynamiting is still carried on among these fish by residents of Eastport and Lubec, Me., principally on the American side of the boundary line. On account of the patrol by the local officers, very little of the business was done in our waters, occasionally they steal over and destroy a 'school.' But as the same 'schools' of pollock leave the shores of Campobello, at the beginning of the flood tide, and keeping on top of the water, in plain view of all, and are carried by the current over across to the American side, there to be met with by unscrupulous persons, well supplied with dynamite, and in no danger of being prosecuted for their lawless acts, it in a great measure nullifies our efforts on this side of the boundary.

SHAD.

There is a decrease in the yield of this fishery of 65 brls. The officers report that they are getting scarcer each year.

COD, HAKE AND HADDOCK.

There is a slight increase in dry cod over 1905, and a large increase in the amount of these fish sold fresh. An increase of 3,893 cwts., will be seen in amount of hake and haddock, dried over that of the previous year, and a very large decrease in the amount of fresh haddock.

7-8 EDWARD VII., A. 1908

LOBSTERS.

There is a decrease of 3,398 cwts., in lobsters sold fresh in the shell, and 10,004 cans in the amount preserved. I would urge upon your department the great need of a lobster hatchery in this district.

DOGFISH.

These pests were not so numerous as in former years.

COCKLES.

Nine hundred and thirty-nine brls, of these were gathered during the summer, mostly by several fishermen from Nova Scotia, who reap a good harvest out of them. No doubt the business will assume much greater proportions in the near future.

CLAMS.

The clam-canning industry appears to be steadily increasing. The pack for 1906 being 199,250 more cans than were put up the previous season.

SYNOPSIS OF FISHERY OFFICERS' REPORTS.

Overseer Frazer, of Grand Manan, states that there was a large increase in the amount of herring smoked over the previous season. And a decrease in all other branches of \$11,000, due to a less vigorous prosecution of the industry, on account of many of the young men being employed in the sardine canneries in Eastport and Lubec, Maine. And also on account of less herring sold for sardines than in 1905. About 90 per cent of the products of fisheries from this division, both cured and fresh, go to foreign markets, principally the United States. The close seasons were observed and no illegal fishing came to his knowledge.

Overseer Savage, of Campobello, reports, that pollock fishing began about May 15, and continued good until November 1. Some of the weirs also made large catches. The total yield was 3,000 quintals more than in any previous year. Prices were good and the fishermen had a prosperous season, although squid for bait were scarce. Sardine herring were scarce.

Overseer Belyea, St. John, reports the best season the salmon fishing has enjoyed for ten years, this he states is in a great measure due to the excellent results from the fish culture department.

Guardian McNeil, West Isles, reports a poor season in the sardine fisheries, and a fairly good season in the other branches. Lobsters scarce and prices high, he reports in favour of a $10\frac{1}{2}$ inch size limit.

I am not in a position to report as to whether the different regulations affecting the fisheries were generally observed or not, on account of not being appointed Inspector until late in the season.

I am sir,

Your obedient servant,

JOHN F. CALDER,

Inspector of Fisheries

SESSIONAL PAPER No. 22

DISTRICT No. 2

MONCTON, N. B., February 12, 1907.

The Dominion Commissioner of Fisheries, &c.,
Ottawa.

SIR,—I have the honour to submit my report of the fisheries in District No. 2 of the province of New Brunswick, consisting of the counties of Restigouche, Gloucester, Northumberland, Kent, Westmorland and Albert, together with the parish of Stanley in the county of York, and the parish of Aberdeen in the county of Carleton, for the year 1906, giving the products and values by districts and counties, also an estimate of the capital employed in the prosecution of the fisheries.

These returns show an increase in the aggregate values over those of last year of very nearly \$300,000; about \$200,000 of this arises from a larger catch, and \$100,000 from higher prices.

I will now refer briefly to the several principal kinds of fish caught.

SALMON

Show a much larger catch than for the previous year, and above that of 1904 of about 500,000 lbs, or fully fifty per cent.

They were also reported by the guardians as very plentiful in all the streams and on the spawning grounds last fall, which indicates a continuation of good fishing.

SHAD

Were a little more plentiful in the Bay of Fundy last year than usual. What is required to thoroughly restore this fishing is a close season during spawning time.

HERRING.

The usual large quantities of spring herring were taken for food, smoking, bait, &c., &c. The fall fishing on the Miscou Caraquet banks was also fairly good. The Scotch curers spent some time at Caraquet catching and curing these fish, which I believe will lead to better methods hereafter, and much higher prices will be sure to follow such improvements.

MACKEREL.

More were caught than in 1905, and the increase appeared to be general everywhere on our coasts.

COD.

Notwithstanding considerable scarcity of bait, the quantity taken was considerably in excess of that of the previous year, and prices being very high made it a profitable season for those engaged in this important fishery; means should be taken to make bait available at all times when required.

SMEELTS.

The winter of 1906 being very unfavourable for the keeping and shipping of these fish, owing to so much mild weather, the totals are not quite up to the average of the previous few years, but this season the weather is more favourable and prices are high.

7-8 EDWARD VII., A. 1908

LOBSTERS.

There was quite a marked increase in the pack of lobsters last year, owing to a big run in the Straits of Northumberland, especially the latter part of the open season, in many cases in Westmorland county the canners could hardly take care of the fish, and fishermen made from fifty to seventy dollars per day with one boat. This will greatly stimulate the business and may lead to overfishing in 1907. North of Chockpish the catch was not quite up to that of 1905.

OYSTERS.

Rather more were taken than in the previous year, especially at Buctouche where they are of the very best quality, and prices were higher than ever before. Winter fishing in deep water does not appear to have done any harm, but to give them time to grow in such deep water, we have now, as arranged, laid off those areas into sections which are fished in rotation every third year.

CLAMS.

Large quantities of hard shell clams (quahaugs), were again raked in Buctouche, Cocagne, Shediac, &c., &c., but some restrictions should be put on this fishery as to rakes, &c., to prevent the small ones from being taken.

Fishermen should also be under license to give the local officers better control.

A great many soft shell clams were canned by Messrs. A. & R. Loggie, at Inker-man, Gloucester county.

Of the other kinds of fish fully as many were taken as usual in the aggregate and values were higher than ever before.

I have the honour to be, sir,

Your obedient servant,

R. A. CHAPMAN,

Inspector of Fisheries.

SESSIONAL PAPER No. 22

DISTRICT No. 3

FREDERICTON, N.B., February 20, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report on the state of the fisheries in District No. 3 (inland) in the province of New Brunswick for twelve months, to January 1st, 1907, with statistics showing the quantity and value of fish taken, also materials and value of same used in connection with the fisheries in this district.

A comparative statement of the value of fish taken and materials used in 1905 and 1906, is herewith given, viz. :

	Value of fish.	Value of materials.
1905	\$65,387	\$55,384
1906.....	42,646	47,004

showing a very great decrease in the catch of fish, for which I am unable to give any explanation.

The decrease in materials used can be accounted for by the fact that a good run of fish will bring into use more materials. No doubt it will be said that the fisheries are being prosecuted too extensively, but I hesitate before accepting that view, particularly when it is remembered that the season of 1905 was considered one of the best known in the history of the inland fisheries of the province.

It is possible that the small run in the fishing season, regarding salmon, particularly, may result in great good to this particular branch, as I have been told by different fishermen, that salmon seemed particularly plentiful in the St. John river just after the fishing season closed. These fish would probably reach their spawning grounds in good time to deposit their eggs and return to the salt water.

The fly-surface-fishing was the least satisfactory on the Tobique river in 1906 for several years. A fact of local interest at least, was the absence of any fly-surface-fishing (salmon) on the St. John river the past season, whereas in 1905 the first reported instance of successful fly fishing for salmon, about fifty young salmon were taken from one pool near this city. The condition of the water may be accountable for this. In 1905, for a long spell, the water was remarkably low and salmon collected in the pools, seemingly waiting for a rise of water before ascending to the head waters

SHAD.

I regret to have to report a very much smaller catch of this very popular and valuable fish and trust it is only temporary. The demand could not be nearly supplied and prices were very high. Possibly there is more truth than fiction in the contention of Inspector Chapman (District No. 2), that if these fish are to be preserved more restrictions will have to be placed on the catching of them. The result of another season's fishing might partially determine this question.

ALEWIVES.

There is a very large decrease in the quantity of these fish taken in 1906. Fishermen claim that they are gradually growing scarcer, and if such is the case, no doubt, overfishing is the cause of it. There is no doubt, however, that if another day were added to the weekly close time fishermen would claim it a hardship. If it is a fact that

7-8 EDWARD VII., A. 1908

alewives are gradually decreasing, I am convinced that some measure should be adopted to protect the parent fish, and probably, free passage for them two days instead of one, in the week, would serve the purpose. The market was brisk last year and I am informed that fish merchants are now anxious to engage next season's catch.

TROUT.

A very great shortage is reported in the catch of these game little fish. I am unable to get, neither am I able to give any good reason for this. I have in mind, though, that as the returns for trout are wholly approximate, it being impossible to collect anything like correct statistics, the discrepancy may, to a great extent be charged to the guessing. I think it a good policy to restock, as often as possible, many of the lakes and streams with fry. This seems to be necessary to keep up the supply. A great deal of pleasure, if not much profit, is obtained in the pursuit of these fish.

PICKEREL.

The catch of pickerel shows a still greater shortage in 1906, than was apparent in 1905, compared with 1904. Statistics for 1906 will not show this, but when it is understood that statistics (for pickerel, and those only, in my district) cover a period of fifteen months instead of twelve, there is a considerable shortage. In explanation of my statement that statistics cover the catch of pickerel alone, for fifteen months, I mean that they are practically the only fish caught from January 1st to March 31st in my district. Overseers still insist that the size of pickerel net mesh should be not less than 3 inches, as immense numbers of very small fish are caught.

BASS.

The catch of bass is so small that it is scarcely worth reckoning. Only three licenses issued by me for 1907.

STURGEON.

There was an increase of about 1,000 lbs. of those fish caught but apparently no increase of caviare got from them, which might indicate that a smaller class of sturgeon was caught then in 1905, and perhaps it is not any indication. I am strongly of the opinion that the government should make more stringent regulations governing the catching of sturgeon. Taken together, fish and eggs, they are a most valuable inhabitant of our waters and should have especial care to see if they cannot be brought to something like their former state in the St. John river.

SESSIONAL PAPER No. 22

SYNOPSIS OF REPORTS FROM FISHERY OFFICERS.

KING'S COUNTY

Special Guardian Dunham, on St. John river, reports fishing very good in his district.

S. G. Myers, on Kinnebecasis river, reports fishing not so good as usual and an improvement in conditions regarding sawdust, &c., in the water.

QUEEN'S COUNTY.

Overseer Belyea, Queen's West, reports that fishermen were considerably disappointed in the result of last spring's shad fishing. Fishermen think that pickerel destroy the shad spawn. Prices ruled high, however, and while the public suffered, fishermen got fairly good cash results. He reports his special guardians faithful in their duties.

Overseer Hetherington, Queen's East, reports that salmon seem to be increasing. The catch of shad below the average, he thinks overfishing is the cause. Alewives very plentiful but not much fished for on account of good wages in other employment. Pickerel in abundance but very small size. Pickerel net mesh should be enlarged. Instructions to special guardians well carried out, but he believes many salmon are illegally killed on the head waters of the Salmon and Cunaan rivers, far above the settlements.

SUNBURY COUNTY.

Overseer McLean reports all branches of fishing, in his county, below the average in 1906. No violations of the fishery regulations that he is aware of.

YORK COUNTY.

Overseer McKay reports the season of 1906 fishing very much below the average. No reason given. A great influx of foreign sportsmen, particularly on Magaguadavic river and Oromocto and the Kedron lakes, where some expensive cottages were erected and a large amount of money was spent for guides, supplies, &c.

CARLETON COUNTY.

Special Guardian Blake reports a good run of salmon early in the spring, also very plentiful late in the season.

VICTORIA COUNTY.

Overseer Leclair, Victoria district, reports salmon fishing on the Tobique river very much below the average in 1906. Several parties were prosecuted for illegal salmon fishing on the St. John river, and fines collected for the same, also some nets seized and destroyed. Close season strictly observed and the fishway at Plaster Rock, Tobique river, kept in good condition.

7-8 EDWARD VII., A. 1908

Overseer Gagnon, Madawaska district, reports fishing conditions about as usual. No infractions of the fishery regulations, and his special guardians faithful in their duties.

In conclusion, I may say that in the interests of the fisheries of this district, I visited the site of the Hartt mill dam at Fredericton Junction (Sunbury county), to learn if it were possible to satisfactorily place a fishway in the dam. For two reasons I did not think it advisable, viz., the dam is an old affair and not very high, consequently not very formidable to fish, particularly in the spring time. The other reason is that it is quite an ordinary thing for the ice to break away part of the dam just where a fishway would need to be built. Also, I visited the Plaster Rock fishway at the request of Mr. T. F. Allen, Superintendent of the Tobique Salmon Club. Upon close examination we found that with very little repairs, which the owners of the dam, the Messrs. D. Fraser & Sons, were quite willing to make, it would be satisfactory. At the request of special guardian Parlee, of Sussex (since deceased), I went to Sussex in July, and together we visited the mills of Messrs. Jones Bros., and Mr. J. E. McAuley. Things were not quite satisfactory, but before leaving we convinced the parties that it would be to their interest to give more attention to the better disposal of their mill refuse. Reports since lead me to believe that they took the hint. I wish to thank the officials of your department for prompt and considerate attention to all important matters which I brought to their attention.

I have the honour to be, sir,

Your obedient servant,

H. E. HARRISON,
Inspector of Fisheries.

SESSIONAL PAPER No. 22

NEW BRUNSWICK—DISTRICT No. 1.

RETURN showing the Number, Tonnage and Value of Vessels and Boats and the Quantity and Value of all Fishing Materials and other Fixtures used in the Fishing Industry in the Counties of Charlotte and St. John, Province of New Brunswick, for the Year 1906.

Fishing Districts.				Fishing Vessels and Boats.						Fishing Gear or Materials.						Kinds of Fish.								
Number.	Vessels.			Boats.			Gill-nets.			Seines.			Weirs.			Salmon, fresh, lb.	Herring, salted, brls.	Herring, fresh, lb.	Herring, smoked, lb.	Herring, kippered, cans	Herring, boneless and kippered, lb.	Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Number.
	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.										Fathoms.	Value.
Charlotte County.																								
1	10	167	3700	92	67	1240	72	32	2100	610	17	570	1010	20	11200	6000	50	8000	1020					1
2	10	112	3325	29	108	3130	177	115	5750	1130	32	960	1940	31	11100	635	635	3600	414					2
3	7	112	3325	29	270	4750	175	145	3450	1395	90	2925	5240	67	29100	9000	17650	900					3	
4	1	11	1000	2	288	21600	288	5	200	100	96	3360	4608	96	43200	200	83900	336					4	
5	62	1120	42000	197	156	29000	238	950	28000	9000	40	1345	4250	42	52700	5490	522000	5595000	172900	126000	46636	3690	5	
6	10	244	6750	43	220	12807	192	107	3147	1386	29	918	1505	28	8120	1009	15600	465	24000	490			6	
7	5	100	3000	15	150	15000	180	100	2000	1000	100	3000	6000	80	4000	400	40000	34000	230	7			7	
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			8	
Totals.																								
	95	1754	59775	378	1259	87527	1322	1454	44647	14631	404	13078	24553	364	159420	6400	7384	664500	6345665	172000	143650	80236	7080	
St. John County.																								
1	3	60	600	15	160	14600	265	300	17000	5000	9	720	750	23	9000	40000	400	17650	203					1
2	5	108	2590	20	35	1940	53	148	14000	1200	6	320	400	5	36000	175	36000	68	334				2	
3	5	73	1900	120	93	6650	156	132	48300	6150	11	510	800	5	1000	191200	425	334	3				3	
4	4	36	3400	8	19	228	19	22	1250	350	1	1	1	1	1	1500	1500	610	4				4	
5	2	25	1500	6	22	440	22	25	1250	350	1	1	1	1	1	1500	1500	469	5				5	
Totals.																								
	19	302	9900	169	329	23838	515	605	80550	12700	26	1580	1950	28	10000	657200	1090	1500	1684					
Grand total																								
	114	2056	69675	547	1588	111385	1837	2059	125197	27331	430	14638	26503	392	169420	673600	8384	666000	6345665	172000	143650	80236	8761	

7-8 EDWARD VII., A. 1908

RETURN showing the Kinds and Quantities of Fish and Fish Products
Brunswick, for the

Number.	FISHING DISTRICTS.	KINDS											
		Cod, dried, cwt.	Cod, fresh, lb.	Haddock, fresh, lb.	Haddock, dried, cwt.	Haddock, smoked, fin- nan haddies, lb.	Hake, dried, cwt.	Hake, sounds, lb.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.
	<i>Charlotte County.</i>												
1	Lepreau to Red Head	550			8220	68000	5280	3300	35				
2	Red Head to Letang	300	8895	60125			700	500	1000			10	
3	Letang to St. George	252	166700		58	53340	452		4000				14000
4	St. George to St. Stephen.	1415	248000	29800	550	10300	5000	4000	162	3200			3600
5	Grand Manan	888			3690	4516	2985	3200	4325	3500			
6	Campobello	100		30000					16190	10000			1750
7	West Isles								3000				3000
8	St. George and vicinity . . .									4000			40000
	Totals	3535	423595	119925	12518	136156	14417	11000	28972	17700	4000	10	62350
	<i>St. John County.</i>												
1	St. John Harbour											800	27000
2	Lepreau to Chance Harbour	3	50000				45	1000					
3	Chance Harbour to Mispec		80000	80000			1098	1050					
4	Mispecto Tynemouth Creek								150				
5	Tynemouth Creek to Albert Co								10				
	Totals	3	130000	80000			1143	2050	160			800	27050
	Grand total	3538	553595	199925	12518	136156	15560	13050	29132	17700	4000	810	89350

SESSIONAL PAPER No. 22

in the Counties of **Charlotte and St. John**, and Province of **New**
Year 1906—Continued.

OF FISH

Alcives or gaspereau, brls.	Scallops, canned, cans.	Scallops in shell, brls.	Cockles, brls.	Canned sardines, cans.	Sardine herring, brls.	Clams, brls.	Clams, canned, cans.	Clams, shelled, galls.	Flounders, lb.	Tan cod or frost fish, lb.	Squid, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Dulse, lb.	TOTAL VALUE OF ALL FISH.	Number.
																\$ cts.	
.....	24000	2000	.....	2500000	12900	3393	98550	4072	.....	1600	.....	3490	10000	.....	.....	61,199 00	1
.....	600000	6800	1060	48000	.....	.....	.....	15	800	2800	3725	.....	231,486 00	2
.....	939	.....	66195	250	.....	.....	.....	.....	.....	.....	465	150	.....	158,284 55	3
.....	86326	2800	315600	285	.....	.....	.....	.....	2560	.....	.....	193,447 40	4
.....	26350	.....	.....	.....	.....	.....	.....	6000	5500	.....	112000	312,509 20	5
.....	4627	.....	24000	.....	.....	184	11592	1416	.....	.....	.....	105,171 86	6
.....	170000	14952	.....	70200	.....	.....	20	9000	360	.....	.....	.....	55,198 00	7
.....	200	.....	.....	.....	400	.....	.....	.....	.....	.....	3,952 60	8
..	24000	2000	939	3270000	218150	7703	556350	4357	1600	400	219	30882	23041	3875	112000	1,121,248 01	
152 0	9000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	171,290 00	1
.....	375	.....	.....	.....	.....	.....	.....	600	300	.....	.....	10,350 00	2
300	800	4300	.....	.....	50,517 50	3
.....	6,550 00	4
.....	4,735 00	5
15500	9375	.....	.....	.....	.....	.....	.....	1400	4600	.....	.....	243,442 50	
15500	24000	2000	939	3270000	227525	7703	556350	4357	1600	400	219	32282	27641	3875	112000	1,364,690 51	

RECAPITULATION.

OF the Yield and Value of the Fisheries in District No. 1, New Brunswick, comprising the Counties of St. John and Charlotte, for the Year 1906.

Kinds of Fish	Quantity.	Price.		Value.	
		\$	cts.	\$	cts.
Salmon, fresh in ice	Lb. 673,600	0	15	101,040	00
Herring, salted.....	Brls. 8,384	4	00	33,536	00
" fresh and frozen.....	Lb. 666,000	0	01	5,660	00
" smoked.....	" 6,345,665	0	02	126,913	30
" kippered.....	Cans. 172,000	0	10	17,200	00
" boneless and dry kippered.....	Lb. 143,650	0	05	7,182	50
Lobsters, canned.....	Cans. 80,236	0	20	16,047	20
" fresh in shell.....	Cwt. 8,764	10	00	87,640	00
Cod, dried.....	" 3,538	5	00	17,690	00
" fresh and frozen.....	Lb. 553,595	0	04	22,143	80
Haddock, fresh.....	" 199,925	0	03	5,997	75
" dried.....	Cwt. 12,518	3	50	42,813	00
" smoked finnan haddies.....	Lb. 136,156	0	06	8,169	36
Hake, dried.....	Cwt. 15,560	2	50	38,900	00
" sounds.....	Lb. 13,050	0	25	3,262	50
Pollock, dried.....	Cwt. 29,132	3	00	87,396	00
Halibut, fresh.....	Lb. 17,700	0	10	1,770	00
Trout.....	" 4,000	0	12	480	00
Shad.....	Brls. 810	12	50	10,125	00
Smelts, fresh.....	Lb. 89,350	0	08	7,148	00
Alewives.....	Brls. 15,500	5	00	77,500	00
Scallops, canned.....	Cans. 24,000	0	10	2,400	00
" in shell.....	Brls. 2,000	2	00	4,000	00
Cockles.....	" 939	5	00	4,695	00
Sardines, canned.....	Cans. 3,270,000	0	05	163,500	00
" fresh.....	Brls. 227,525	1	50	341,287	50
Clams, in shell.....	" 7,703	1	00	7,703	00
" canned.....	Cans. 556,350	0	10	55,635	00
" shelled.....	Galls. 4,357	0	50	2,178	50
Flounders.....	Lb. 1,600	0	03	48	00
Tom-cod or frost fish.....	" 400	0	03	12	00
Squid.....	Brls. 219	4	00	876	00
Fish oil.....	Galls. 32,282	0	30	9,684	60
" used as bait.....	Brls. 27,641	1	50	41,461	50
" " manure.....	" 3,875	1	00	3,875	00
Dulse.....	lb. 112,000	0	06	6,720	00
Total value of catch for 1906.....				1,364,690	51
" " 1905.....				1,582,462	60
Amount of decrease for 1906.....				217,712	09

SESSIONAL PAPER No. 22

RECAPITULATION.

Of the Number and Value of Vessels, Boats, Nets, Weirs, &c., used in the Fisheries of District No. 1, New Brunswick, comprising the Counties of St. John and Charlotte, for the Year 1906.

Number.	Material.	Value.
		\$ cts.
114	Fishing vessels (tonnage 2,056).....	69,675 00
1,588	" boats.....	111,385 00
2,059	Gill-nets (fathoms 125,177).....	27,331 00
430	Weir seines (fathoms 14,658).....	26,503 00
11	Fish curing factories.....	48,000 00
864	Trawls.....	9,526 00
392	Weirs.....	169,420 00
40	Smelt-nets.....	790 00
3,301	Hand lines.....	2,357 00
*4	Lobster canneries.....	8,500 00
23,711	" traps.....	22,150 00
12	Freezer and ice houses.....	6,100 00
796	Smoke and fish houses.....	178,215 00
331	Piers and wharfs.....	108,150 00
43	Tugs and steamers.....	21,625 00
244	Weir scows and pile drivers.....	6,261 00
	Total value of material.....	815,988 00

7-8 EDWARD VII., A. 1908

NEW BRUNSWICK—

RETURN showing the Number, Tonnage and Value of Vessels, Boats, Nets, &c., and

Number.	DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING GEAR.					
		Vessels.				Boats.		Gill-nets.			Trawls.		
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Number.	Fathoms.	Value.	Number.	Value.	
<i>Restigouche County.</i>													
1	Tide Head to Dalhousie					23	450	30	23	6120	5000		
2	Below Dalhousie	1	26	500	4	210	3200	385	117	21800	20000		
	Totals	1	26	500	4	233	3650	415	170	27920	25000		
<i>Gloucester County.</i>													
3	Beresford and part of Bathurst	2	29	2300	10	440	10200	890	520	40600	21000	2	40
4	Caraquet, New Bandon and part of Bathurst	132	1580	55000	510	505	18500	1050	2200	72000	45000	230	1200
5	Saumarez, Inkerman and Shippegan mainland	24	280	9600	100	260	7200	510	4100	80100	12000	40	200
6	Shippegan and Miscou islands	65	821	35000	250	510	23000	1200	1250	45000	18000	140	550
	Totals	223	2710	101900	870	1715	58900	3650	8070	237700	96000	412	1990
<i>Northumberland County.</i>													
7	Neguac and vicinity	4	50	1800	15	210	7000	450	600	45000	42000	4	80
8	Bay du Vin and vicinity	2	25	800	6	215	9000	500	750	80000	75000		
9	Chatham and vicinity	2	31	1000	10	155	4500	300	450	36000	32000		
10	Southwest and Northwest Miramichi rivers					130	2200	160	380	22000	12000		
	Totals	8	106	3600	31	710	22700	1410	2180	183000	161000	4	80
<i>Kent County.</i>													
11	Richibucto, St. Louis, &c.					290	10900	475	4750	74800	23200	13	200
12	Buctouche and vicinity	1	10	400	3	600	17000	1025	2300	50000	14000		
13	Cocagne and vicinity					380	7200	580	1150	28000	8000		
	Totals ..	1	10	400	3	1270	35100	2080	8200	152800	45200	13	200
<i>Westmorland County.</i>													
14	Shediac, Moncton, &c.					460	14000	810	850	40000	17000		
15	Botsford					485	19000	850	670	21000	9000		
16	Sackville and Westmorland					250	5000	400	500	10000	4000		
17	Dorchester					28	1500	55	160	6000	2500		
	Totals ..					1223	39500	2115	2180	77000	32500		
18	Albert County					16	600	28	30	3500	2000		
	Grand totals	333	2852	106400	908	5177	160450	9698	20830	681920	361700	429	2270

SESSIONAL PAPER No. 22

District No. 2.

Kinds of Fish, in District No. 2, Province of New Brunswick, for the Year 1906.

OR MATERIALS.				LOBSTER PLANT.					KINDS OF FISH.								
Smelt-nets		Hand Lines.		Canneries		Traps.		Persons employed in Canneries.	Salmon, fresh, lb.	Salmon, preserved in cans, lb.	Salmon, smoked, lb.	Herring, salted, brls.	Herring, fresh, lb.	Herring, smoked, lb.	Mackerel, fresh, lb.	Mackerel, salted, brls.	Number.
Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.										
	%		%		%		%										
142	7100	.....	.....	.....	.....	50	50	.....	125850	.....	.....	.....	.....	.....	.....	.....	1
26	2000	.....	.....	3	3000	5600	5000	78	150450	200	.....	1370	350000	120000	1000	.....	2
168	9100	.....	.....	3	3000	5650	5050	78	276300	200	.....	1370	350000	120000	1000	.....
.....	...	350	300	5	2600	7800	7000	130	112000	800	1000	13500	170000	35000	4500	5	3
75	3700	2200	1600	18	11000	25000	23000	540	242000	.....	.....	35000	300000	.....	15000	20	4
175	7700	600	400	7	9000	13000	12000	235	68000	.....	.....	16000	40000	.....	20000	20	5
65	3200	1300	1000	37	30000	56000	52000	1050	.....	2000	1500	18000	100000	.....	30000	20	6
315	14600	4450	3300	67	52600	101800	94000	1945	422000	2800	2500	82500	610000	35000	69500	65	
186	16700	150	200	9	6000	9000	8000	160	126000	.....	.....	11200	10000	15000	3000	.....	7
320	20000	100	150	3	3700	7500	7000	140	210000	.....	.....	4000	20000	10000	75000	.....	8
466	43000	50	70	.....	.....	.....	.....	.....	164000	.....	.....	100	10000	.....	1000	.....	9
.....	.....	.....	.....	.....	.....	.....	.....	.....	125000	.....	4000	.....	.....	.....	.....	.....	10
972	79700	300	420	12	9700	16500	15000	300	625000	.....	4000	15300	40000	25000	79000	.....
351	14240	550	170	13	5500	18000	16000	240	121000	2500	1800	7500	225000	.....	195000	150	11
255	11030	500	150	26	8000	17000	15000	320	.....	.....	.....	18000	128000	.....	6000	.....	12
80	3500	100	40	6	3500	4000	3800	100	.....	.....	.....	3800	650000	.....	2500	.....	13
686	28740	1150	360	45	17000	39000	34800	660	121000	2500	1800	29300	1003000	.....	203500	150	
150	7500	100	40	26	5800	24000	22000	670	3800	.....	.....	26000	420000	3600000	3000	.....	14
85	3800	70	30	40	12000	55000	50000	1320	.....	.....	.....	18000	100000	640000	3000	.....	15
50	1500	100	40	.....	.....	200	200	4	1000	.....	.....	1200	70000	6000000	1500	.....	16
.....	.....	.....	.....	.....	.....	.....	.....	.....	12000	.....	.....	100	.....	.....	.....	.....	17
285	12800	270	110	66	17800	79200	72200	1994	16800	.....	.....	45300	590000	10240000	7500	.....
..	.....	.....	.....	.....	.....	300	300	.....	5000	.....	.....	300	10000	.....	.....	.....
2426	145020	6170	4190	193	110100	229700	221300	4977	1466100	5500	8300	174070	2603000	10420000	360000	215	18

7-8 EDWARD VII., A. 1908

RETURN showing the Kinds and Quantities of Fish and Fish Products in the

Number.	DISTRICTS.	KINDS OF FISH										
		Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod tongues and sounds, brls.	Haddock, dried, cwt.	Hake, dried, cwt.	Hake sounds, lb.	Halibut, lb.	Trout, lb.	Shad, brls.	Smelts, lb.
	<i>Restigouche County.</i>											
1	Tide Head to Dalhousie.....		100							4500		180640
2	Below Dalhousie	30000	150	120						4400		75000
	Totals.....	30000	250	120						8900		255640
	<i>Gloucester County.</i>											
3	Beresford and part of Bathurst...	20160	175	3000						10000		2000
4	Caraquet, New Bandon and part of Bathurst.....	182560	600	40000	200	800	2000	2500	65000	12000	40	330000
5	Saumarez, Inkerman and Shippe- gan mainland.....	82000	250	9500	25	400	700	500	15000	5000	60	450000
6	Shippegan and Miscou islands...	520000	200	24000	120	300	200	2500	41000	500		280000
	Totals.....	804720	1225	76500	345	1500	4700	5500	121000	27500	100	1062000
	<i>Northumberland County.</i>											
7	Negunac and vicinity.....	102800	120	1750		200	400	600	2500	7000	200	900000
8	Bay du Vin and vicinity.....	92000	150	600		800		5000	3000	1800	120	580000
9	Chatham and vicinity.....			140		300	60			5000	200	1400000
10	Southwest and Northwest Mira- michi rivers									26000	600	15000
	Totals	194800	279	2490		500	1260	5600	5500	39800	1120	2895000
	<i>Kent County.</i>											
11	Richibucto, St. Louis, &c.....	228720	250	1380	5	300	2000	2200	2000	4500	150	990000
12	Buctouche and vicinity.....	162000	120	100			300	100		2000		350000
13	Cocagne and vicinity.....	51184	100	120			60			2600		195000
	Totals.....	441904	470	1600	5	300	2360	2300	2000	9100	150	1535000
	<i>Westmorland County.</i>											
14	Shediac, Moncton, &c.....	228000	310	100			60			13000	50	470000
15	Botsford	636200	1200	100						8000	20	310000
16	Sackville and Westmorland.....	5000	200							2000	250	95000
17	Dorchester.....			10						3200	1200	
	Totals.....	869200	1710	210			60			26200	1520	875000
18	<i>Albert County</i>		200							10600	160	5000
	Grand totals.....	2340624	4125	80920	350	2300	8380	13400	128500	121500	2990	6627640

SESSIONAL PAPER No. 22

Counties of District No. 2, Province of New Brunswick, for the Year 1906.

AND FISH PRODUCTS.												Seal skins, No.	TOTAL VALUE OF ALL FISH.	Number.
Alcwives or Gaspe- reau, brls.	Bass, lb.	Eels, brls.	Oysters, brls.	Clams, brls.	Flounders, lb.	Tom cod or frost fish, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.			
.....	.....	13	.....	.....	30000	20000	.....	40	.....	.....	40	.....	\$ 36,982 00	1
.....	.....	40	.....	.....	1400	2000	.....	.....	.....	350	500	.....	56,772 00	2
.....	.....	53	.....	.....	31400	22000	.....	40	.....	350	540	.....	93,754 00	
.....	1500	20	.....	1750	15000	14000	15	75	300	1700	25000	8	132,255 00	3
.....	8000	210	850	3800	40000	120000	450	800	15000	10000	28000	20	560,190 00	4
150	4000	500	20	8000	15000	30000	150	1400	1200	2000	5000	12	235,570 00	5
.....	8000	100	50	2100	12000	10000	200	1100	7000	14000	20000	24	411,015 00	6
150	21500	830	920	15650	82000	174000	815	3375	23500	27700	78000	64	1,339,030 00	
150	10000	180	1300	500	30000	75000	.....	.....	100	2500	10000	...	186,460 00	7
200	5000	300	6000	500	75000	150000	.....	2500	.....	6000	13000	...	199,780 00	8
300	3000	50	500	.....	400000	1200000	.....	.....	40	50	200	.....	161,057 00	9
800	94000	650	.....	.....	.....	65000	.....	.....	60	.....	.....	.....	56,218 00	10
1450	112000	1180	7800	1000	505000	1490000	.....	2500	200	8550	23200	.....	603,515 00	
1570	19000	780	750	250	45000	70000	10	450	800	4600	3000	8	244,985 00	11
1000	1600	100	3000	10000	.....	55000	.....	5000	40	6000	13000	..	233,517 00	12
400	1500	120	1400	9000	20000	25000	.....	250	.....	2000	8000	.....	104,256 00	13
2970	22100	1000	5150	19250	65000	150000	10	5700	840	12600	24000	8	582,758 00	
380	4000	200	600	4200	.....	28000	.....	900	.....	16000	50000	.....	355,090 00	14
150	3000	100	350	1800	.....	30000	.....	.....	.....	28000	26000	.....	345,510 00	15
200	2000	75	100	1000	.....	3000	50	.....	.....	6000	5000	.....	154,520 00	16
..	.....	50	.....	.....	.....	6000	.....	100	.....	.....	.....	.....	16,100 00	17
730	9000	425	1050	7000	..	67000	50	1000	.....	70000	81000	...	871,220 00	
.....	600	70	.....	10	.....	30000	.....	.....	40	.....	.....	...	7,612 00	18
5300	165200	3558	14920	42910	683400	1933000	875	12615	24580	99200	206740	72	3,497,889 00	

7-8 EDWARD VII., A. 1908

RECAPITULATION.

Of the Yield and Value of the Fisheries in District No. 2, **New Brunswick**, for the Year 1906.

Kinds of Fish.		Quantity.	Price.	Value.
			\$ cts.	\$
Salmon, fresh	Lb.	1,466,100	0 20	293,220
" preserved in cans	"	5,500	0 15	825
" smoked	"	8,300	0 20	1,660
Herring, salted	Brls.	174,700	4 50	783,315
" fresh	Lb.	2,603,000	0 01	26,030
" smoked	"	10,420,000	0 02	208,400
Mackerel, fresh	"	350,500	0 12	43,260
" salted	Brls.	215	15 00	3,225
Lobsters, preserved	Cans.	2,340,624	0 25	585,156
" in shell	Cwt.	4,125	6 00	24,750
Cod, dried	"	80,920	5 00	404,600
" tongues and sounds	Brls.	350	10 00	3,500
Haddock	Cwt.	2,300	3 50	8,050
Hake	"	8,380	2 50	20,950
" sounds	Lb.	13,400	0 25	3,350
Halibut	"	128,500	0 10	12,850
Trout	"	121,500	0 10	12,150
Shad	Brls.	2,990	10 00	29,900
Smelts	Lb.	6,627,640	0 05	331,382
Alewives	Brls.	5,300	4 00	21,200
Bass	Lb.	165,200	0 10	16,520
Eels	Brls.	3,558	10 00	35,580
Oysters	"	14,920	6 00	89,520
Clams	"	42,910	4 00	171,640
Flounders	Lb.	683,400	0 03	20,502
Frost fish	"	1,933,000	0 03	57,990
Squid	Brls.	875	4 00	3,500
Coarse fish	"	12,615	2 00	25,230
Fish oil	Galls.	24,580	0 30	7,374
Fish as bait	Brls.	99,200	1 50	148,800
Fish as manure	"	206,740	0 50	103,370
Seal skins	No.	72	1 25	90
Grand total				3,497,889

SESSIONAL PAPER No. 22

RECAPITULATION.

Of the Number and Value of Vessels, Boats, Nets, Traps, &c., engaged in the Fisheries
in District No. 2, **New Brunswick**, in the Year 1906.

Material.	Value.	Total.
	\$ cts.	\$ cts.
233 fishing vessels (2,852 tons)	106,400	
5,177 fishing boats	160,450	
681,920 fathoms gill-nets	361,700	
429 trawls	2,270	
185 bass-nets	1,260	
2,426 smelt-nets	145,020	
6,170 hand-lines	4,190	
193 lobster canneries	110,100	781,290
229,700 lobster traps	221,300	
189 freezers and ice-houses	72,300	331,400
443 fish and smoke-houses	44,600	
51 piers and wharfs	40,400	
72 tugs and smacks	22,700	
921 smelt shanties	15,400	195,400
Totals		1,308,090

7-8 EDWARD VII., A. 1908

DISTRICT No. 3, NEW BRUNSWICK, 1906.

RECAPITULATION of the Fisheries yield in the Inland Counties, N.B.

Kinds of Fish.	Quantity.	Price.		Value.	
		\$	cts.	\$	cts.
Salmon	Lb.	42,640	0 20	8,528	00
Shad, fresh	"	63,050	0 05	3,252	50
" salted	Brls.	620	10 00	6,200	00
White fish	Lb.	6,450	0 15	967	50
Trout	"	75,100	0 10	7,510	00
Bass	"	200	0 08	16	00
Pickarel	"	106,500	0 07	7,455	00
Alewives, fresh or smoked	"	47,900	0 02	958	00
" salted	Brls.	1,725	3 00	5,175	00
Sturgeon	Lb.	10,800	0 08	864	00
Eels	Brls.	7	10 00	70	00
Coarse and mixed fish	"	375	2 00	750	00
Caviare	Lb.	1,000	0 90	900	00
Total				42,646	00

NOTE.—For the yield by counties see recapitulations of the whole province, page 126.

SESSIONAL PAPER No. 22

RECAPITULATION of the Material of Fishing in District No. 3, New Brunswick, 1906.

Material.	Number.	Value.
		\$ cts.
Men employed.	1,487	
Vessels (tonnage, 30)	2	600 00
Boats	886	9,945 00
Gill-nets (fathoms)	50,275	20,800 00
Rods and lines	1,845	4,650 00
Cottages, smoke and ice-houses and freezers	157	11,010 00
Total		47,005 00

NOTE.—For localities of District No. 3 see general recapitulation of N.B., page 124.

SESSIONAL PAPER No. 22

RECAPITULATION showing the Number, Tonnage and Value of Vessels, Boats and other Fishing Materials, &c.,
New Brunswick—Continued.

COUNTIES.	FISHING GEAR OR MATERIALS.						LOBSTER PLANT.						OTHER FIXTURES USED IN FISHERIES.						
	Weirs.		Sneel-nets.		Hand Lines.		Canneries.		Traps.		Freezers and Ice-houses.		Smoke and Fishhouses.		Piers and wharfs.		Tugs, steamers & snacks.		
	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
<i>District No. 1.</i>																			
1 Charlotte.....	364	159420	34	370	3191	2277	4	8500	18586	17592	50	6	2400	735	156415	222	95000	42	20525
2 St. John.....	28	10000	6	420	115	80	.....	.....	5125	4558	...	6	3700	61	21800	109	13150	1	1100
<i>District No. 2.</i>																			
3 Albert.....
4 Westmorland.....	285	12800	270	110	66	17800	79200	72200	1994	68	3600	180	14200	11	2700	4	4000
5 Kent.....	686	28740	1150	360	45	17006	39000	34800	660	14	9400	13	1700	16	4500	1	2500
6 Northumberland.....	972	79700	300	420	12	9700	16500	15000	300	46	24500	129	11700	1	10000	19	6000
7 Gloucester.....	315	14600	4450	3300	67	52600	101800	94000	1945	53	18300	116	16100	19	23000	43	6500
8 Restigouche.....	168	9100	.....	.....	3	3000	5650	5050	78	8	16500	2	800	1	200	5	3700
<i>District No. 3.</i>																			
9 Victoria.....	*535	1400	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 Carleton.....	300	600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11 York.....	370	1400	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12 Simsbury.....	100	200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13 Queen's.....	250	550	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 King's.....	250	500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	392	169420	2466	145810	11316	11197	197	118600	253111	243450	5027	201	78400	1306	233825	382	148550	115	44325

* From No. 9 to 14, the numbers are rods and line instead of the regular hand lines for sea fishing.

RECAPITULATION showing the Kinds and Quantities of Fish and Fish Products in the Province of New Brunswick, for the Year 1906.

COUNTIES.	KINDS OF FISH.													Number.						
	Salmon, fresh, lb.	Salmon, preserved in cans, lb.	Salmon, smoked, lb.	Herring, salted, brls.	Herring, fresh, lb.	Herring, smoked, lb.	Mackere], fresh, lb.	Mackere], salted, brls.	Loabsters, preserved in cans, lb.	Loabsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod tongues and sounds, brls.	Haddock, fresh, lb.		Haddock, dried, cwt.	Haddock, smoked, human haddies, lb.	Hake, dried, cwt.	Hake sounds, lb.	Pollock, cwt.	Halibut, lb.
<i>District No. 1.</i>																				
1 Charlotte	6400	.....	.....	7384	664500	6345665	.....	.....	80236	7080	3535	.....	119925	12518	136156	14417	11000	28972	17700	1
2 St. John	667200	.....	.....	1000	1500	.....	.....	.....	.....	1684	3	.....	80000	.....	.....	1143	2050	160	.....	2
<i>District No. 2.</i>																				
3 Albert	5000	.....	.....	300	10000	10240000	7500	.....	869200	200	210	.....	.....	.....	.....	60	.....	.....	.....	3
4 Westmorland	16800	.....	.....	45300	590000	.....	.....	.....	.....	1710	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
5 Kent	121000	2500	1800	23300	1003000	.....	2033500	150	441904	470	1690	5	.....	300	.....	2360	2300	.....	2000	5
6 Northumberland	625000	.....	4000	15300	40000	25000	79000	.....	194800	270	2490	.....	.....	500	.....	1260	5600	.....	5500	6
7 Gloucester	422000	2800	2500	82500	610000	35000	69500	65	804720	1225	76500	315	.....	1500	.....	4700	5500	.....	121000	7
8 Restigouche	276300	200	.....	1370	350000	120000	1000	.....	30000	250	120	.....	.....	.....	.....	.....	.....	.....	.....	8
<i>District No. 3.</i>																				
9 Victoria	5590	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
10 Carleton	1000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11 York	23140	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
12 Sunbury	1500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13 Queen's	1500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14 King's	10000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
Totals	2182340	5500	8300	183084	3269000	16765665	3606500	215	2420860	12889	84458	350	199925	14818	36156	23940	26450	29132	146200	

SESSIONAL PAPER No. 22

RECAPITULATION showing the Kinds and Quantities of Fish and Fish Products in the Province of New Brunswick, for the Year 1906.

COUNTIES.	KINDS OF FISH.												FISH PRODUCTS.				TOTAL VALUE OF ALL FISH.	Number.		
	Trout, lb.	Shad, brls.	Smelts, lb.	Alwives or gaspereau, brls.	Bass, lb.	Pickarel, lb.	Eels, brls.	Sardines, fresh, brls.	Oysters, brls.	Clams, brls.	Flounders, lb.	Tom cod or frost fish, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.			Fish as manure, brls.	Seal skins, No.
<i>District No. 1.</i>																				
1 Charlotte.....	4000	10	62350	15500	.....	.....	.....	218150	.....	7703	1600	400	219	.....	30882	23041	3875	.....	1
2 St. John.....	.....	800	27000	15500	.....	.....	.....	9375	.....	.....	.....	.....	.....	.....	1400	4600	.....	.....	2
<i>District No. 2.</i>																				
3 Albert.....	10000	100	50000	.....	600	.....	70	.....	1050	10	.....	30000	.....	.....	40	.....	.....	.....	3
4 Westmorland.....	26200	1520	875000	730	9000	.....	425	.....	5150	7000	.....	67000	50	1000	.....	50000	81000	.....	4
5 Kent.....	9100	150	1535000	2970	22100	.....	1000	.....	5150	19250	65000	150000	10	5700	840	12500	24000	8	5
6 Northumberland.....	39800	1120	2895000	1450	112000	.....	1180	.....	7800	1000	505000	1490000	.....	2500	290	8750	23200	.....	6
7 Gloucester.....	27500	100	1062000	150	21500	.....	830	.....	920	15050	82000	174000	815	3375	23500	27700	78000	64	7
8 Restigouche.....	8900	.....	255640	.....	.....	.....	53	.....	.....	.....	31400	22000	.....	40	.....	350	540	.....	8
<i>District No. 3.</i>																				
9 Victoria.....	16750	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
10 Carleton.....	15000	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11 York.....	30000	50	.....	50	.....	30000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
12 Sunbury.....	1000	50	.....	800	.....	30000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13 Queen's.....	2350	305	.....	725	.....	41500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14 King's.....	10000	200	.....	150	200	5000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
Totals.....	200600	420	6716990	22525	165400	106590	3505	227525	14920	50613	685000	1933400	1094	12990	56862	120841	210615	.....	72
																			4,905,225 51	

* For all items not enumerated here as whitefish, sturgeon, &c., see p. 122.

7-8 EDWARD VII., A. 1908

RECAPITULATION.

Of the Yield and Value of the Fisheries of the whole Province of **New Brunswick**,
for the Year 1906.

Kinds of Fish.	Price.	Quantity.	Value.	Total value.
	\$ cts.		\$ cts.	\$ cts.
Salmon, fresh..... lb.		2,182,340	402,788 00	
" preserved..... cans.	0 15	5,500	825 00	
" smoked..... lb.	0 20	8,300	1,660 00	405,273 00
Herring, salted..... brls.	4 50	183,084	816,851 00	
" fresh..... lb.	0 01	3,269,000	32,690 00	
" smoked..... "	0 02	16,765,665	335,313 30	
" kippered..... "		315,650	24,382 50	1,209,236 80
Mackerel, salted..... brls.	15 00	215	3,225 00	
" fresh..... lb.	0 12	360,500	43,260 00	46,485 00
Lobsters, preserved in cans..... "	0 25	2,420,860	601,203 20	
" in shell..... cwt.		12,889	112,390 00	713,593 20
Cod, dried..... "	5 00	84,458	422,290 00	
" fresh..... lb.	0 04	553,595	22,143 80	
" tongues and sounds..... brls.	10 00	350	3,500 00	447,933 80
Haddock, dried..... cwt.	3 50	14,818	51,863 00	
" fresh..... lb.	0 03	199,925	5,997 75	
" as finnan haddies..... "	0 06	136,156	8,169 36	66,030 11
Hake, dried..... cwt.	2 50	23,940	59,850 00	
" sounds..... lb.	0 25	26,450	6,612 50	63,462 50
Pollock..... cwt.	3 00	29,132		87,396 00
Halibut..... lb.	0 10	146,200		14,620 00
Trout..... "	0 10	200,600		20,140 00
Shad, salted..... brls.		4,420	46,225 00	
" fresh..... lb.	0 05	65,050	3,252 50	49,477 50
Smelts..... "		6,716,990		338,530 00
Bass..... "	0 10	165,400		16,536 00
Alewives..... brls.		22,844		104,833 00
Eels..... "	10 00	3,565		35,650 00
Sardines, fresh..... "	1 50	227,525	341,287 50	
" preserved in cans..... cans.	0 05	3,270,000	163,500 00	504,787 50
Pickercel..... lb.	0 07	106,500		7,453 00
Sturgeon..... "	0 08	10,800	864 00	
" caviare..... "	0 90	1,000	900 00	1,764 00
Whitefish..... "	0 15	6,450		967 50
Flounders..... "	0 03	685,000		20,550 00
Frost fish or tom cod..... "	0 03	1,933,400		58,002 00
Oysters..... brls.	6 00	14,920		89,520 00
Clams and quahaugs..... "		50,613	179,343 00	
" canned and shelled..... "			57,813 50	237,156 50
Scallops..... "				6,400 00
Cockles..... brls.	5 00	939		4,695 00
Squid..... "	4 00	1,094		4,376 00
Coarse and mixed..... "	2 00	12,990		25,980 00
Dulse..... lb.	0 06	112,000		6,720 00
Oil..... Galls.	0 30	56,862		17,058 60
Bait..... brls.		126,841		190,261 50
Manure..... "		210,615		107,245 00
Seal skins..... No.		72		90 00
Total for 1906.....				4,905,225 51
" 1905.....				4,847,090 60
Increase.....				58,134 91

SESSIONAL PAPER No. 22

RECAPITULATION.

Of the Number of Fishing Crafts, Nets, &c., in the whole Province of **New Brunswick**, for the Year 1906.

Number.	Articles.	Value.	Total.
		\$	\$
349	Fishing vessels (4,938 tons)	176,675	
7,651	" boats	281,780	
857,392	Fathoms of gill-nets.....	409,831	
430	Seines (14,658 fathoms).	26,503	
2,466	Smelt-nets	145,810	
185	Bass-nets	1,260	
1,293	Trawls	11,796	
392	Weirs.....	169,420	
11,316	Hand lines and rods and lines.....	11,197	
			1,234,272
197	Lobster canneries	118,600	
253,411	" traps.....	243,450	
			362,050
201	Fish freezers and ice-houses.....	78,400	
1,396	Fish and smoke houses.	233,825	
382	Fishing piers and wharfs.....	148,550	
115	Fishing tugs and smacks	44,325	
921	Smelt shanties.	15,400	
244	Scows and pile drivers.	6,261	
11	Fish curing factories.....	48,000	
			574,761
	Total		2,171,083

STATEMENT of the number of men engaged in the Fisheries of **New Brunswick**, 1906.

Number of men in vessels.....	1,461
" " boats	13,016
" persons in lobster canneries.....	5,025
Total.....	19,502

APPENDIX No. 4.
PRINCE EDWARD ISLAND.

REPORT ON THE FISHERIES OF PRINCE EDWARD ISLAND FOR THE
YEAR 1906, BY INSPECTOR J. A. MATHESON.

CHARLOTTETOWN, January 2, 1907

To the Dominion Commissioner of 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 1906, together with the tabulated statistics showing the catch in detail in each county and locality, also synopsis of reports of overseers for the past year, with brief references to the principal features with seasons operations.

I am pleased to be in a position to state that our most important fishery viz. : lobsters shows an increase, which some fishermen claim is owing to the hatcheries in New Brunswick and Nova Scotia. Should such be the case, we may also expect good results from the hatchery in this province.

I also have to report an increase in the total values as follows :

1905	\$998,921
1906	1,168,939
Increase	170,018

LOBSTERS.

I have to report an increase of 893,036 lbs. lobsters, which goes to show that notwithstanding the large number of men engaged in this fishery, that this season shows a fair average for the last ten years.

OYSTERS.

I have again to report a shortage in this industry, and would recommend that spring fishing be abolished, which would meet the approval of both fishermen and shippers.

MACKEREL.

I am pleased to have to report a small increase in this fishery, the fish were smaller than for some years, and took the hook more freely. A few schools were taken at Rustico late in the season.

COD.

I have also to report an increase in the codfishery of 2,636 quintals over last season. With the high prices obtained by our fishermen, the financial results were satisfactory.

HAKE.

There was a small increase in the catch of this fish for which fishermen realized good prices.

HERRING.

Show an increase of about one thousand barrels over last year's catch, a good many were exported, and the balance principally used for bait.

QUAHAUGS

There was a large increase in the quantity of quahaugs taken, which were shipped to the New York markets and brought fair prices. This fishing gives employment to a great number of men.

SESSIONAL PAPER No. 22

A good deal of trouble was experienced to control fishermen from infringing on oyster areas, as the regulations were not very clear. Some more definite regulations should be enacted to more properly regulate this fishery, which is assuming large proportions.

SMEELTS.

Smelt fishing was about equal to that of last season, and was remunerative to fishermen.

TROUT.

This fishery was about as usual, Great disappointment was felt that trout spawn were not placed in the hatchery at Southport instead of salmon.

SYNOPSIS OF OVERSEERS' REPORTS.

Overseer Davison, Prince County reports a large increase in the catch of herring, they were plentiful and largely used for bait. A quantity were caught at Alberton which were salted and exported.

Mackerel were more plentiful, especially around Alberton. There was an increase of lobsters, due to the hatcheries, as the lobsters in the straits were plentiful but small in size. On the north side they were not so plentiful, but larger.

There was a good deal of windy weather, which shortened the catch on the north side of the Island, and a lot of fishing gear was destroyed.

Cod show a decrease in this county. The fishermen say the dogfish struck in early, and they had to take up their trawls, they scarcely got any fall fish.

There was a large decrease in oysters; the reason given by fishermen is that the starfish are destroying all the small oysters. Quahaug fishing is practically a new industry, a large quantity being fished last year, giving employment to great numbers of men. There was a good deal of trouble last season in keeping quahaug fishermen from destroying the oyster beds.

There were a few violations of the lobster regulations, the guilty parties were fined. Oyster fishermen claim they made as much money this year as last, as prices were better.

Overseer McCormack, Kings County, reports as follows: Lobsters were first packed the 22nd of April, the total pack in this county is short of last year by 16,752 lbs., were it not for the scarcity of bait the early part of the season and ten days of stormy weather the last of May, no doubt, the pack would exceed last year.

Cod struck on the 10th May, a fine shoal of large fish, this branch of the fishery prosecuted vigorously with good results.

Hake fishing commenced about the first of July, and good fishing continued until the first December, showing a large increase over last year's catch. Mackerel were scarce all through the season, fair catches were made on the north side the first part of October out in deep water, and only large boats could get out so late in the season.

The result of the foregoing conditions show, with no more men engaged than last year, an increase of \$11,734, which I attribute largely to the fact that the fishermen were able to sell their fish or most of it green to the Souris fish drier, thereby losing no time salting and drying their fish.

I regret to say that several cases of illegal lobster fishing were reported from the southern part of the county, the parties were prosecuted and fined, and cases are now pending against others which I expect to convict, two persons were fined for netting trout.

I am, sir,

Your obedient servant,

J. A. MATHESON,

Inspector of Fisheries.

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Value of Fish, &c., in the County of Prince, Province of Prince Edward Island, for the Year 1906.

Number.	Districts.	KINDS OF FISH.															Fish Products.		TOTAL VALUE OF ALL FISH.	Number.							
		Mackerel, fresh, lb.	Mackerel, salted, brls.	Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Haddock, dried, cwt.	Hake, dried, cwt.	Hake sounds, lb.	Pollock, cwt.	Halibut, lb.	Trout, lb.	Smelts, lb.	Alwives or Gaspereau, lb.	Eels, brls.	Oysters, brls.	Quahaugs, bags.	Flounders, lb.			Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish at bait, brls.	Fish as manure, brls.		
1	Prince County.																										
1	Tignish	1000	350	155050		1000	60	1200	3000				400		3						1200	5000			63,387 50	1	
2	Nail Pond.		83	72980		105		135	400												210	850			26,108 00	2	
3	Skimmers Pond . . .	16000	122	50000		440	111	200	600										15000		535	920	100		27,954 00	3	
4	Miningash		301	57600		683		1237			500		7000		8					3	25	1222			31,201 00	4	
5	Alberton		499	49644		695							35000		5	300		2000			250	1100			38,571 00	5	
6	Narrows, Lot 11 . . .			46232		76							4000												13,385 00	6	
7	Ellerslie, Lot 12 . .			38890		300	10	100		10	800											628			17,432 50	7	
8	Bideford			4080																		1150			24,482 50	8	
9	Grand River			3024									20000		5	1529	3200					100			17,794 00	9	
10	Malpeque		72	12384		358							21150		10	1700	5000				80	185			22,791 00	10	
11	Richmond Bay . . .		50		10	80							10000			2450					20	500			22,993 00	11	
12	Roxbury, Lot 6 . . .					105							9760		8	24									16,606 00	12	
13	Fifteen Point			142128																		5500			45,372 00	13	
14	Bac			12480										15		50	20000					700			45,030 00	14	
15	West Point			39600		20		10														600			11,170 00	15	
16	Travellers Rest . . .					25							5000		4	1000	1200					80	105		9,150 00	16	
17	Summerside			6528									70000		5	140	60					125			6,989 50	17	
18	Carleton			28416																		540			8,524 00	18	
19	Tryon			94464									2000			100						1375			25,778 50	19	
20	Wellington			79248		20						200	10000	10	10	500	1332					1805			29,083 50	20	
	Totals	17000	1477	892728	90	3897	181	2882	4000	10	860	700	194310	25	58	10748	33392	15000	3	25	3395	22796	205				
	Values \$	2040	22155	223182	630	19485	633	8646	1000	25	80	70	9715	100	580	64488	60784	450	12	50	1018	34194	205			487,243 50	

RETURN showing the Number and Value of Vessels, Boats, Nets, &c., and the Quantity and Value of all Fish in the County of Queen's, Province of Prince Edward Island, for the Year 1906.

Number.	Districts.	Fishing Vessels and Boats.				Fishing Gear or Materials.				Lobster Plant.				Kinds of Fish.						
		Vessels.		Boats.		Gill-nets.				Hand- lines.		Canneries.		Traps.		Kinds of Fish.				
		Number.	Tonnage.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Salmon, fresh, lb.	Salmon, preserved in cans, lb.	Herring, salted, brls.	Herring, fresh, lb.	Macquerel, fresh, lb.	
1	Tracadie.....	5	83	1550	19	50	2000	100	1100	6200	16	480	200	100	4	4500	12600	7550	7500	
2	New London.....					45	2000	160	20	100	17	350	200	100	6	2150	10100	5050	12000	
3	Point Prim.....					45	2000	160	20	100	16	350	50	25	22	4170	16335	9165		
4	Rustico.....	3	60	1270	27	120	2600	290	200	5000	16	450	400	200	25	4200	14000	7000	20000	
5	Wheatley River.....					3	150	9	20	100	75		50	25						
6	Pownal.....					34	300	60							2	1150	3300	1700		
7	Charlottetown.....					40	750	75				12	360	100	50				100000	
8	Crapaud.....					30	800	60	15	125	100	4	120	100	50	8	3350	8790	7950	
9	Lot 65.....					93	1600	156	100	2000	500	19	570	50	25	5	3775	9500	4200	
10	Bays and rivers.....					40	400	80						100	50			250	20000	
	Totals.....	8	143	2920	46	655	1240	1880	26825		90		1250		52		74825		39500	
	Values.....						15100			12235		2700		625		23295		295500	2256	4740

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Queen's, Province of Prince Edward Island, for the Year 1906—Continued.

Number.	Districts.	KINDS OF FISH AND FISH PRODUCTS.																			TOTAL VALUE OF ALL FISH.	Number.
		Mackerel, salted, brls.	Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Hake sounds, lb.	Trout, lb.	Smelts, lb.	Alewives or Gas- pereau, brls.	Eels, brls.	Oysters, brls.	Clams, brls.	Squid, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.			Quahangs, bags.
1	Tracadie.....	285	110672	109	20 0	15	5000	15	15	25	1500	75000	200	200	1800	50	25	750	2166	20	1000	73,335 75
2	New London.....	400	69840	...	750	15	...	...	100	...	600	50000	...	...	80	5	...	800	1716	90	...	36,590 00
3	Point Prim.....	...	78384	...	80	...	...	...	...	...	750	28000	...	60	885	15	...	...	2635	400	1000	34,558 50
4	Rustico.....	1000	108960	75	3750	20	10000	...	...	...	2000	40000	...	275	...	40	...	1000	2540	210	...	94,045 00
5	Wheatley River.....	...	...	...	1000	10	...	...	...	...	1000	22000	...	...	...	...	...	50	...	...	...	6,315 00
6	Pownal.....	...	20160	...	...	...	...	...	...	...	...	1000	...	...	275	...	...	...	528	...	1000	9,532 00
7	Charlottetown.....	...	49216	150	...	...	...	...	...	...	...	35000	...	20	...	10	...	...	1416	300	4000	12,290 00
8	Crapaud.....	...	44832	25	1200	...	...	...	...	...	...	15000	...	...	1050	...	...	...	1520	400	6000	15,718 00
9	Lot 65.....	...	...	...	...	...	...	...	...	...	5000	45000	250	150	150	...	...	...	...	450	...	42,063 00
10	Bays and rivers.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,050 00
	Totals.....	1685	482064	350	8780	60	15000	15	115	25	10850	381000	450	705	4240	120	25	2600	12531	2270	13000	...
	Values.....	25275	120516	2430	43900	600	450	52	345	6	1085	19056	1800	7050	25440	480	100	780	18796	2270	26000	333,007 25

RETURN showing the Number and Value of Vessels, Boats and Nets, the Quantity and Value of all Fish in the County of King's, Province of Prince Edward Island, for the Year 1906.

Number.	FISHING VESSELS AND BOATS.					FISHING GEAR OR MATERIALS.					LOBSTER PLANT.				KINDS OF FISH.												
	Vessels.		Boats.			Gill-nets.			Trawls.		Shed-nets.		Hand-lines.		Canner-ies.	Traps.		Salmon, fresh, lb.	Herring, salted, brls.	Herring, fresh, lb.	Mackerel, fresh, lb.	Mackerel, salted, brls.					
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Value.	Number.	Value.	Number.	Value.	Number.		Value.											
King's County.																											
1	Souris and Red Point	5	68	200	21	55	1000	94	350	5000	3000	40	400	4	120	100	200	4	2000	6800	4000	100	1000	2000	60		
2	Bay Fortune					33	350	48	50	1000	500	5	50	6	180	50	100	2	2000	4200	3000	30	1500	...	36		
3	Annandale					34	850	45	300	6000	2500	15	150	3	90	100	200	6	7000	20800	14000	50	1000	500	50		
4	Georgetown	3	167	2500	17	70	3000	114	400	8000	4000	30	300	6	180	100	200	4	5000	14000	10000	300	3000	1000	100		
5	Murray Harbour, North					53	2000	63	300	6000	3000	6	60	...	...	100	200	12	7000	30800	20000	...	1500	...	40
6	" " South	10	225	5000	50	50	1000	82	200	4000	2000	60	600	1	35	400	600	6	2000	10300	7000	200	4500	...	40		
7	Morell and St. Peters					69	1500	124	200	4000	1500	20	200	16	480	100	200	8	6000	17000	10000	100	2000	3000	155		
8	Naufrage					36	3500	54	150	2500	1200	5	50	...	...	50	100	5	4000	10000	8000	...	2000	500	56
9	North Lake					50	800	87	100	2000	1000	6	60	...	...	100	200	4	3000	7000	5000	50	1000	500	100
10	East Lake					40	500	70	150	2500	1500	60	600	1	30	100	200	1	2000	2000	1500	120	2000	...	60		
	Totals	18	460	...	88	490	...	781	2200	41000	...	247	...	37	...	1200	...	52	...	122900	...	10400	950	13500	7500	691	
	Values	8	7700	14500	20200	...	2470	...	1115	...	2200	...	40000	...	82500	...	2080	4750	195	900	10365

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of King's, Province of Prince Edward Island, for the Year 1906—Continued.

DISTRICTS.	KINDS OF FISH.																	TOTAL VALUE OF ALL FISH.	Number.		
	LoBSTERS, preserved in cans, lb.	Cod, dried, cwt.	Cod tongues and sounds brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Hake, sounds, lb.	Trout, lb.	Smelts, lb.	Alwets or Caspereau, brls.	Eels, brls.	Caplin, brls.	Quahaugs, bags.	Clams, brls.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.			Fish as bait, brls.	Clams in cases.
<i>King's County.</i>																					
1	Souris and Red Point.....	66336	2450	10	2000	100	3500	7000	1000	4000	10	100	...	25	20	50	2000	900	...	...
2	Bay Fortune	72000	270	...	500	20	65	130	1500	20000	5	...	...	10	...	15	150	500	...	...
3	Amundale	140640	200	5	1000	25	75	150	600	4000	4	10	...	20	...	10	300	600	...	...
4	Georgetown	97680	755	10	2000	35	420	840	1500	40000	50	20	...	30	20	50	400	2000	120	...	
5	Murray Harbour, North.....	179252	280	...	1500	...	85	170	1000	4000	10	...	...	30	40	...	250	1600	100	...
6	" " South	51360	1380	15	1000	100	2220	4440	500	15000	20	25	1320	30	...	50	1500	1500	150	...	
7	Morell and St. Peters.....	121920	1120	12	2000	50	100	200	2500	35000	40	25	...	...	20	25	600	1000	...	...
8	Naufrage	76800	260	...	...	20	...	...	500	...	...	...	...	...	...	...	150	600	...	...
9	North Lake	73872	600	...	500	15	850	1700	1000	2000	25	20	...	10	20	50	1000	500	...	...
10	East Lake	34656	1000	6	1000	40	...	...	...	4000	...	...	...	...	...	...	...	...	...	...
Totals		914496	8315	58	11500	405	7315	14630	10600	128000	115	114	160	1320	125	120	250	6550	9800	370	...
Values.....		228624	41575	580	345	1417	21945	3657	060	6400	460	1140	560	2640	500	480	500	1965	14700	1850	348,689 00

RECAPITULATION by Counties showing the Number, Tonnage and Value of Vessels and Boats, Nets, &c., in the Province of Prince Edward Island, for the Year 1906.

DISTRICTS.		FISHING VESSELS AND BOATS.							FISHING GEAR OR MATERIALS.																	
		Vessels.				Boats.			Gill-nets.			Seines.			Trap-nets.			Trawls.			Smelt-nets.			Hand-lines.		
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<i>Counties.</i>																										
1	King's	18	460	7700	88	490	14500	781	2200	41000	20200	.....	.....	.....	.....	2	500	247	2470	37	1115	1200	2200	1	2200	1
2	Prince	8	153	3400	43	780	26115	1379	2330	44563	11441	5	1350	2500	.....	2	1500	96	100	2484	508	386	2	508	2	
3	Queen's	8	143	2920	46	655	15100	1240	1880	26825	12235	9	1200	1300	.....	10	350	145	1000	90	2700	1250	625	3	1250	3
Totals		34	756	14020	177	1925	55715	3400	6410	112388	43376	14	3150	3800	.....	14	2350	488	4416	227	6299	2958	3191		2958	

DISTRICTS.		LOBSTER PLANT.				OTHER FIXTURES USED IN FISHERIES.																				
		Canneries.		Traps.		Persons employed in Canneries.		Freezers and Ice-houses.		Smoke and Fish Houses.		Piers and Wharfs.		Tugs, Steamers and Snacks.												
		Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.											
<i>Counties.</i>																										
1	King's	52	40000	82500	122900	800	.....	1	2000	114	1980	11	2150	14	2700	1	2700	1	2700	1	2700	1	2700	1	2700	1
2	Prince	84	33353	79092	115220	923	.....	3	3000	13	1740	9	7700	2	2100	2	2100	2	2100	2	2100	2	2100	2	2100	2
3	Queen's	52	23295	42615	74825	488	.....	1	1500	.....	.....	3	300	1	1000	3	1000	3	1000	3	1000	3	1000	3	1000	3
Totals		188	96550	204207	312945	2211	.....	5	6500	127	3720	23	10150	17	5800		5800		5800		5800		5800		5800	

SESSIONAL PAPER No. 22

RECAPITULATION by Counties showing the Kinds and Quantities of Fish and Fish Products in the Province of Prince Edward Island, for the Year 1906.

KINDS OF FISH AND FISH PRODUCTS.																		
Districts.	Number.																Number.	
		Salmon, fresh, lb.	Salmon, preserved in cans, lb.	Herring, salted, brls.	Herring, fresh, lb.	Mackarel, fresh, lb.	Mackarel, salted, brls.	Lobsters, preserved in cans, lb.	Lobsters, fresh in shell, cwt.	Cod, dried, cwt.	Cod tongues and scunds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Hake sounds, lb.	Pollock, cwt.	Halibut, lb.	Number.
Counties.	1 King's	10400	...	950	19500	7500	691	914496	...	8315	58	11500	405	7315	14630	...	...	1
	2 Prince	1500	...	6221	29500	17000	1477	892728	90	3897	...	...	181	2882	4000	10	800	2
	3 Queen's	200	100	5900	226600	33560	1685	482064	350	8780	60	15000	15	115	25	...	...	3
Totals		12100	100	13071	275600	64000	3853	2289258	440	20992	118	26500	601	10312	18655	10	800	

KINDS OF FISH AND FISH PRODUCTS.																		
Districts.	Number.																Number.	
		Trout, lb.	Smelts, lb.	Alwives or Gaspe- reau, brls.	Bels, brls.	Sardines.	Oysters, brls.	Clams, brls.	Flounders, lb.	Squid, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Quahogs, bags.	Canned clams in cases.	TOTAL VALUE OF ALL Fish.	Number.
Counties.	1 King's	10600	128000	115	114	160	...	125	...	120	250	6550	9800	...	1320	370	348,689 00	1
	2 Prince	700	194310	25	58	...	10748	...	15000	3	25	3385	22796	205	33392	...	487,243 50	2
	3 Queen's	10850	381000	450	705	...	4240	120	...	25	...	2600	12531	2270	13000	...	333,007 25	3
Totals		22150	703310	590	877	160	14988	245	15000	148	275	12545	45127	2475	47712	370	1,168,939 75	

RECAPITULATION.

SHOWING Yield and Value of the different Fisheries of the Province of **Prince Edward Island**, during the Year 1906.

Kinds of Fish.	Quantity.	Price.		Value.	
		\$	cts.	\$	cts.
Salmon, fresh	Lb. 12,100	0	20	2,420	00
" smoked	" 100	0	15	15	00
Herring, salted	Brls. 13,071	5	00	65,355	00
" fresh	Lb. 275,600	0	01	2,756	00
Mackerel, fresh	" 64,000	0	12	7,680	00
" salted	Brls. 3,853	15	00	57,795	00
Lobsters, cans	Lb. 2,289,288	0	25	572,322	00
" fresh in shell	Cwt. 440	7	00	3,080	00
Cod, dried	" 20,992	5	00	104,960	00
Tongues and sounds	Brls. 118	10	00	1,180	00
Haddock, fresh	Lb. 26,500	0	03	795	00
" dried	Cwt. 601	3	50	2,103	50
Hake, dried	" 10,312	3	00	30,936	00
" sounds	Lb. 18,655	0	25	4,663	75
Pollock	Cwt. 10	2	50	25	00
Halibut	Lb. 800	0	10	80	00
Trout	" 22,150	0	10	2,215	00
Smelts	" 703,310	0	05	35,165	50
Alewives or Gaspereaux	Brls. 590	4	00	2,360	00
Eels	" 877	10	00	8,770	00
Caplin	" 160	3	50	560	00
Oysters	" 14,988	6	00	89,928	00
Clams	" 245	4	00	980	00
Clams in cases	Cases. 370	5	00	1,850	00
Quahaugs	Bags. 47,712	2	00	95,424	00
Flounders	Lb. 15,000	0	03	450	00
Squid	Brls. 148	4	00	592	00
Coarse and mixed fish	" 275	2	00	550	00
Fish oil	Galls. 12,545	0	30	3,763	50
Fish as bait	Brls. 45,127	1	50	67,690	50
Fish as manure	" 2,475	1	00	2,475	00
Total for 1906				1,168,939	75

SESSIONAL PAPER No. 22

RECAPITULATION.

SHOWING the Number and Value of Vessels, Boats, Nets, Lobster Canneries, Traps &c.,
used in fisheries of the Province of Prince Edward Island for the season
of 1906.

Articles.	Value.	Total.
	\$	\$
34 fishing vessels (756 tons).....	14,020	
1,925 " boats.....	55,715	
6,410 gill-nets (112,388 fathoms).....	43,876	
14 seines (3,150 fathoms).....	3,800	
14 trap-nets.....	2,350	
488 trawls ..	4,416	
227 smelt-nets.....	6,299	
2,958 hand-lines.....	3,191	
		133,667
188 lobster canneries.....	96,650	
312,945 lobster traps ..	204,207	
		300,857
5 freezers and ice-houses.....	6,500	
127 smoke and fish houses.....	3,720	
23 piers and wharfs.....	10,150	
17 steamers and smacks. .	5,800	
		26,170
Total.....		460,694

Number of persons employed in the fisheries of Prince Edward Island :—

Men in fishing vessels.	177
Men in fishing boats.....	3,400
Persons in lobster canneries.....	2,211
	5,788

APPENDIX No. 5.

PROVINCE OF QUEBEC.

GULF OF ST. LAWRENCE DISTRICT, BY INSPECTOR WM. WAKE
HAM, M.D., GASPÉ BASIN.

INLAND DISTRICTS, BY INSPECTORS JOSEPH RIENDEAU, OF MONT-
REAL, AND A. H. BELLIVEAU, OF OTTAWA.

GASPÉ BASIN, April 1, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit herewith the annual report on the fisheries of the Gulf of St. Lawrence Division, province of Quebec, for the season just closed, with synopses of the reports of some of the local officers, and the statistics showing the quantities and values of the year's catch in the division.

The returns show a slight increase in the value of the catch as compared with the previous season. Speaking in a general way the summer fishing was good, but owing to the unusual severity of the weather in the fall, there was practically no fall fishery. Owing to the great demand for labour all over the country, and the high wages paid, the number of hands engaging in the fishery is decreasing, and those who do engage in the fishery do so for a much shorter season than formerly. Agents from the large lumber firms, in the west, visit the coast in August and September, and fishermen are shipped to the woods well before the close of the usual summer fishing. It is becoming annually more difficult to engage men for the fishing, and the men offering are of an inferior class, as the best, most active and enterprising are those who leave the coast to find work elsewhere.

HERRING.

The spring herring fishery opened at the end of April, and the schools of herring visiting the usual spawning grounds were quite as abundant as usual. At the Magdalen Islands a large revenue is derived from the sale of this herring to vessels coming from the United States, the maritime provinces and Newfoundland. Many cargoes are each spring taken to Eastport and Lubec, in Maine, to be smoked. These fish are carried in bulk, slightly salted. Very few of the visiting vessels attempt to take their own fish, the usual practice being to purchase the quantity required from those who fish the seines and traps owned at the Islands. In the Bay des Chaleurs a large part of the spring herring taken is used for manure, and applied directly to the land. Some of our fishing outfitters object to this practice, as it is undoubtedly the case that herring for bait has become scarcer during the summer months. As there does not seem to be any diminution in the volume of spring herring which visits the coast, I cannot see that this manner of using the herring can be blamed for the scarcity along shore during the rest of the season. The great schools of herring visit the regular spawning grounds with remarkable constancy, but having spawned they leave the shores and we know practically nothing of their movements until they return in the spring.

SESSIONAL PAPER No. 22

COD.

The first cod were taken about the middle of May, and at times the fishery was exceedingly good. The extent of the codfishery, however, depends very largely upon the supply of fresh bait, and this was often scarce and difficult to procure in July and August. Bait freezers have been established at many points along the coast, but there exists an unaccountable prejudice on the part of the fishermen against the use of the frozen bait. If they cannot have absolutely fresh bait they prefer to remain ashore and waste their time in idleness. Time, and the example of those who are intelligent enough to use the frozen bait, may overcome this prejudice, but the fixed ideas of an ignorant people are hard to eradicate. Several of our leading fishing firms, years ago, put up freezers at their own expense, and tried to induce the fishermen to use the frozen bait when no other could be had, but the fishermen persistently refused to use it, and the idea was finally abandoned. Had we had an average fall fishing, the season would have been a splendid one, as in spite of the uncertainty of the bait supply the summer fishing was fair. The fall, however, was exceedingly rough, and though fish and bait were abundant, the boats could not venture out. One storm succeeded another with such frequency that every one became discouraged, and the boats were put ashore and fishing abandoned long before the usual date of closing. The price of cod was unusually high, so that those who stuck to the fishing did well.

SALMON.

The yield of the salmon fishery was good, the best of recent years. The catch on the north coast of the Gulf was even greater than that of the previous season, which west of Natashquan was considered phenomenal, while on the south coast, in Bonaventure and Gaspé the catch was one of the best we have had for many years.

	1905.	1906.	Increase 1906.
	Lbs.	Lbs.	Lbs.
Bonaventure County.....	115,600	225,909	110,309
Gaspé do	148,650	228,834	80,784
Saguenay do	457,361	500,752	43,391
	721,011	955,495	234,484

The catch on the rivers was not a large one, due no doubt in part to the heavy take in the nets, but the weather was warm and dry, and the water fell rapidly, so that with the clear, low water, and the high temperature, it was not astonishing that fly fishermen hardly made as good averages as usual.

LOBSTERS.

The returns from the lobster canners show a total of 798,800 lb. cans, which means a decrease in the pick of 49,834 lbs. It is useless to ignore the fact that in the Gulf Division lobsters are becoming scarcer. This has been perfectly apparent for some years. At the Magdalen Islands the pack has been slightly increased by allowing fishing in September, but if as seems quite clear the fishery is a failing one, then this September fishing can only hasten the end. We can only compare it to 'burning the candle at both ends.' There is no wish, as far as I can gather at the Magdalen Islands to see this open season in September continued. It has never paid any one, and it simply offers an excuse to go and poach in the lagoons. No intelligent packer or fisherman at the Islands was ever in favour of this open September season. It was understood

7-8 EDWARD VII., A. 1908

that it would be continued for three years as an experiment. As the three years are now up, it is hoped that the fall fishing for lobsters will be discontinued.

MACKEREL.

The returns for the mackerel fishing at the Magdalen Islands show a catch of 7,178 brls. This is a considerable increase over the catch of 1905, and as the prices paid for mackerel were high, the fishermen did well. Mackerel were not taken anywhere else in the Gulf Division.

I beg to append synopses of some of the reports made by the local fishery officers.

I am, sir,

Your obedient servant,

WM. WAKEHAM,

Officer in charge of the Gulf of St. Lawrence Division.

SYNOPSIS OF REPORTS OF SOME OF THE LOCAL OFFICERS.

George Forest, F. O., Bonaventure Sub-division, reports that the catch of spring herring was fair—but that both summer and fall herring failed. The codfishery was good up to the middle of July, but during the rest of the summer fishing, it was nil—owing to want of bait—while during the fall months October and November there was little or no fishing owing to bad weather. The lobster pack shows a falling off. The salmon net fishing was much better than last year.

F. X. Chapados, F. O., Port Daniel sub-division, reports spring herring as having been abundant all along his coast. The lobster pack continues steadily to diminish. The salmon fishing was a good one—better than for some years. The cod fishing, which began towards the end of May, was good up to the end of July—but after that amounted to nothing owing to the ravages of the dogfish, shortness of bait and rough weather. No fall herring were taken, this was due to the constant rough weather keeping the herring off shore.

A. T. Carter, F. O., Gaspé sub-division, reports that the salmon fishery shows quite an increase as compared with 1905. Salmon struck in early in May, and kept a steady run during the whole season—the rivers were well stocked and the fly fishermen had generally good sport. Spring herring were not over-plentiful, but were of a large size—herring bait was generally taken throughout the season. The catch for fall salting was limited, and the size small. Squid were fairly plentiful throughout the season, but caplin and launce were scarce. Cod fishing began about the 20th May, and the catch shows a considerable increase over 1905—owing to the number of mills now operating in the vicinity, a large number of the best fishermen leave off early in the season, and either work at the mills or go to the camps to secure winter work. This of course handicaps the fishing considerably. Lobsters show a slight increase but the size is small. The government will have to take some steps to save this valuable industry. Smelt show a decrease but the price was good. Heavy gales prevailed after the 3rd October, doing considerable damage to property, and preventing the fishermen from carrying on the fall fishery.

Louis Letourneau, F. O., Mont Louis sub-division, reports—the salmon net fishing along this coast as having been very abundant, and the prices obtained good—neither mackerel nor white whales were seen on the coast. Dogfish only remained on this part of the coast for one week. Spring herring were plenty, and remained along the coast until the end of June, when they disappeared, and herring were scarce until the beginning of September, when they returned, and good catches were made especially in the western part of the sub-division. Cod struck the coast about the 10th May, and

SESSIONAL PAPER No. 22

were abundant up to the 1st November, good fishing was made whenever bait was obtainable.

J. A. Chevrier, F. O., Magdalen Islands, reports—that the season of 1906 opened successfully, as a large number of seals were taken on the ice—the spring herring catch was as good as in previous years—these fish seem to be as abundant as ever. The lobster fishing has not been good, being 30 per cent less than in 1905—this decrease was, however, partly due to bad weather. It is Mr. Chevrier's opinion that the fall lobster fishing season from 1st to 30th September should be cancelled, he believes that the fishing should begin about the 20th April, and end on the 20th July, and then end.

Spring mackerel fishing was much better than in 1905, while the summer mackerel fishing and the cod fishing were good also. Mackerel were not as abundant on the northern islands, as about the southern ones. All things considered, the fishermen of the islands had a fairly successful season.

N. A. Comeau, F. O., reports for the Godbout sub-division. The season was a most remarkable one as regards salmon, the fish were early in coming, the first being taken on the 20th May. They came at once in large numbers, and remained plentiful until the close of the season in July. This is the record year—the catch being several thousand pounds in excess of any previous season—very few grilse were seen—the absence of these young salmon was also noted in other parts of the gulf. The cod fishery was a good one, wherever bait was plentiful—capelin were unusually abundant, large quantities having been washed ashore on the beaches by the surf—herring were abundant in April and May, and in some sections even in June—but afterwards they disappeared entirely. Halibut are on the increase both in number and size, and the catch was a good one—a few schools of mackerel were seen off St. Nicholas, Godbout, and Egg Island, but only a few odd ones were taken in the herring nets. It is now about 20 years since mackerel were taken off this coast in paying quantities. There was a very great scarcity of trout and very few were taken by the anglers after the 15th July—the supposition was that they had gone up the river early owing to the low water, but Mr. Comeau does not believe that this was the cause, he thinks rather, that the scarcity was due to a disease, a sort of fungus, to which trout are liable when the water is low and warm. This same trouble occurred some years ago—then many dead trout were found along the sea shore—but this year only a few dead fish were noticed. Ground sharks and dogfish did not trouble the fishermen this season. Very few were taken by fishermen, in the halibut trawls—while whales were seen in immense numbers, and a few were killed by hunters along the north shore. The harbour seal holds its own, in spite of its being hunted at all seasons—the increased value of its skin making it much sought after. The immense herds of harp seals that used to be seen yearly, from Saguenay down, have quite disappeared. Neither squid nor horse mackerel were seen on the coast.

Théotime Migneault, F.O., Moisie sub-division, reports that salmon netting began at Moisie on the 18th May, and that the fishing was good between the 1st and 25th June. There was a slight decrease in the catch in the river nets, due to high water during the season of fishing. The cod fishery was fair, showing an increase in the catch over 1905. Herring were taken in the spring but failed entirely in the autumn. The catch of halibut fell off, due to the scarcity of herring. Seventy-two (72) whales yielding 180,000 galls. of oil, were taken by the Quebec Steam Whaling Co. The fishery regulations were well observed.

R. Joncas, F. O., Natashquan sub-division, reports that cod fishing began at the end of May, and the yield was an ordinary one. Caplin came early and remained on the coast till the 20th of August. The salmon net fishing in the Natashquan river was good, while the sea coast nets did fairly well. The lobster pack was about as usual. The change in the method of collecting the fees for salmon net licenses has reduced the collections from this source by fully one-half. The regulations were well observed.

7-8 EDWARD VII., A. 1908

REPORT ON THE INLAND DISTRICT FROM THREE RIVERS TO THE
U. S. BOUNDARY LINE BY INSPECTOR JOSEPH RIENDEAU.

MONTREAL, May 22, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit my report on the fisheries of my district for the year 1906.

The territory under my supervision extends from the head of Lake St. Francis, in line with the county of Huntington to the county of Nicolet, on the south shore, and from the county of Soulanges to the county of Champlain, on the north shore.

In the course of my inspection trips, I have ascertained with much satisfaction that in several parts of my district the conditions of the fisheries are very much improved. To begin with Lake St. Francis, on the south shore, the laws and regulations are, in general, thoroughly respected. The exceptions are indeed very few. On the north shore, from Coteau Landing to Vaudreuil, if the fishery overseers would only give more care and attention to their duties, I would be able to report the same progress.

On the whole, I have come to the conclusion that the fish has visibly increased in growth and in size, except perhaps the sturgeon. This fish has been so mercilessly slaughtered in the past, that it will take some years before we shall see it again on our markets where it is so much appreciated. As it is now, we only see small ones.

In Lake St. Louis, the fishermen are of opinion that the fish caught by night lines are noticeably in better condition than in past years. If the fishermen could be persuaded to observe the law more scrupulously I have no doubt that in the near future great changes for the better would take place.

The Lake of Two Mountains is nearly ruined through abuses unconsciously perpetrated. There is hardly enough fish for the ordinary wants of the population. I respectfully submit that an end should be put to the gill and hoop-net fishing in that lake. I receive complaints most every day from that part of the country against the fishermen who act as if there was no law in existence. If these waters were closed to nets of any kind, for a certain period of time, I am of opinion that the results would be promptly noticed. I think that petitions to that effect have been sent to the federal authorities.

From Laprairie to Lake St. Peter, on both sides of the river, the law has been fairly respected.

I am sorry to say that I cannot pay the same compliment to the Lake St. Peter fishermen. I may safely state that since the first official inspection made by me on these fishing grounds, I have never seen so large a quantity of hoop nets as now used in the Counties of Yamaska, Berthier and Maskinongé. In one of my visits I tried to ascertain the number of implements used by the fishermen in these places which form the boundaries of Lake St. Peter, and I obtained the following results: In the county of Richelieu, 47 hoop-nets; in Yamaska county, 814, with altogether 11,475 fathoms of leaders; in Berthier and Maskinongé counties I found 290 hoop-nets and 260 fathoms of leaders. And this statement does not comprise the county of St. Maurice and the nets set up in the woods during the spring freshets when the fish go up the little streams for spawning. The game fish and the sturgeon have certainly decreased by two-thirds during the period of the last three years. Soft fish is very scarce and of small size.

What must not be lost sight of is that Lake St. Peter is the best expanse of water in this district for the production of fish if it was tended with all the care it is entitled to. In all the bays and the surrounding woods there are enormous quantities of insects and worms which constitute an excellent food. Unhappily the fishermen will not give fish time to grow.

The minnow nets are regular slaughtering implements. Ten per cent of every hundred minnows taken with these nets are used, the remainder die as soon as taken,

SESSIONAL PAPER No. 22

for they are packed like sardines in small reservoirs and no care is taken of them though it represents a great part of the food for the bigger fish.

I respectfully suggest that in Lake St. Peter a stop should be put to fishing with hoop-nets for a certain number of years.

The same may be said of the county of Nicolet; careless and illegal fishing has exhausted the fish supply.

In other places where trout fishing is done, the conditions are slightly improved in comparison with the past, since the law has forbidden the market exportation to the United States. In my opinion, the trout ought not to be offered on the market or anywhere else for sale, and that for some years to come. Speckled trout fishing should be tolerated only in sporting cases and for family uses.

Severe punishment should also be meted out to people setting box traps or *nasses* in small rivers or streams where the fish go to spawn.

Sporting men are also often the first law breakers in catching great quantities of fish that they do not even use and which are left on the spot. I am of opinion that there should be a law by which a fixed number of fish could be taken daily and determining the length and size, the remainder to be thrown back in the water. The efficiency of such a measure should be soon established.

If the provincial overseers would only do their duty and have a look to the illegal fishing in the great and numerous lakes in the northern part of my district, the report on the yield of fish would also be more gratifying.

In conclusion, I may say that, with the exception of Lake St. Peter, the law is fairly well observed in all the fishing grounds of my district.

The whole respectfully submitted.

JOS. RIENDEAU,

Inspector of Fisheries.

REPORT ON THE INLAND DISTRICT OF QUEBEC, BY INSPECTOR A. H. BELLIVEAU, FOR THE YEAR 1906.

To the Dominion Commissioner of Fisheries.

SIR,—To better establish comparisons in the yields of the different kinds of fish with those of previous years, the former sub-divisions have been, as much as possible, adhered to, even when under different officers.

Since the provincial authorities do not require statements of the actual catch of fish from their own officers, especially in the inland districts, where there is little or no commercial fishing carried on, it becomes very difficult to secure any reliable data. Now that one government grants fishing privileges, and the other seeks statistical information, it should be easier for both to attain their object.

North Shore District.—The most important change in the Saguenay and Lake St. John districts is the refusal of all netting licenses in those inland waters by the provincial authorities. It will prove a most difficult undertaking to completely eradicate all vestige of netting at all times. The settlers have enjoyed this privilege for such a long period, that they will now consider it a hardship to be deprived of it.

The Blue Point Indian reserve is now the only exception where netting may still be indulged in by the residents for their own domestic use.

The famous Ouananiche was fairly abundant last season in these waters. Quite a few were captured by anglers, especially in the immediate neighbourhood of the discharges of the lake. Let us hope that the Indians will not destroy more than they actually need for their supply, nor abuse the privilege thus granted them. It is the opinion of many that these game fish are still plentiful in the tributaries of the Lake St. John. Because but few were captured in nets, it does not follow that the species was exhausted, but that their sportive qualities enable them to detect the nets and shun them.

I have been informed that some of the true salmon have been captured in Lake St. John or its tributaries weighing as much as nine pounds, and one large specimen reaching sixteen pounds. It is now quite a few years since salmon-fry were distributed in Lake St. John for the first time. Our officer at Tadousac has for the last few years given an annual supply of ova to the Beemer hatchery for this district.

A very important point would be to ascertain if any of these salmon have ever descended to the sea and returned to their native waters by ascending the décharges rapids of this great lake, the head of the Saguenay. If salmon of such a size have actually been captured in that lake, it would almost prove that some at least have gone to the sea and returned. Our fish culture officer at Tadousac will endeavour soon to establish proofs of the above.

Naturally the recent prohibition of net fishing will somewhat curtail the production of fish in Lake St. John, especially the kinds which do not take the hook. While there will not be enough for commercial purposes without nets, it is hoped that sufficient captures will be effected to enable residents to secure what they require for their own consumption.

The local Government active guardian for the whole Saguenay river, residing at Tadousac, reports the seizure of only twenty-nine nets all along this large stream last season. He therefore concludes, that poachers are not quite so numerous as formerly, but there would still be room for improvement. Salmon were reported plentiful on their different spawning beds last year, which promises well for the future.

South Shore Districts.—The large catch of the previous year in the lower part of this division was again maintained last season. Again large quantities of cod were captured and disposed of in a green state. Sardines were again plentiful, and great quantities were secured. The latter fishery was also quite remunerative in the county of Temiscouata, where most of this product was exported to the United States.

Eel fishing was also much more remunerative than during 1905, and would have been still better, had not some of the former fishermen, discouraged by the failure of the few previous seasons, neglected to repair and otherwise attend to their fisheries.

If the fishermen of Temiscouata districts better knew how to prepare their herring by the improved methods taught to the Bay of Chaleurs fishermen by an expert, they would derive better profits from this industry. Now their herring only realizes from twenty-five cents to a dollar per barrel.

At Isle Verte, the fishermen, besides their fishing operations, also enjoy the privilege of saving and preparing *eel-grass*, which grows in the vicinity. About \$30,000 worth of this marine product was, last year, exported to the United States, where it is used for upholstering purposes.

In the vicinity of Levis, fish were not so abundant as during the previous season, but prices were more remunerative and the fishermen were satisfied at the total result. Shad, however, seem to be steadily disappearing from the neighbouring shores.

The Island of Orleans encircled by its hundred weirs, now yields, almost entirely eels. Their capture of last season was satisfactory, although not quite up to that of former years.

Missisquoi Bay and Richelieu River.—The fisheries of this district seem to withstand the annual drain of its numerous seines better than any other part of my district. The depletion of fish in the bay is not felt much and as good catches as ever were effected during the short time that fishing is allowed therein. The high prices realized at that early fishing period are very enticing to its participants. Hence the reluctance with which these old seiners abandon what they consider an old vested right.

As the principal object seems to be to protect pickerel, or doré and bass (the other species being considered as coarse fish unworthy of protection), it would seem that this object would be attained if none of the two above mentioned species were retained out of the water say after 1st of April. More real protection would then be accorded to the better species by fishing out the inferior kinds as perch, pike, bull-heads, &c., &c.

The large eel weirs at Iberville rapids on the Richelieu river yielded as much as ever, but their owners had more trouble than usual in securing remunerative markets. Their lower weir at St. Therese has been flooded by a big dam to raise the river level for the electrical purposes of the big Power Company of Chambly.

SESSIONAL PAPER No. 22

Angling for black bass was again very good last season in the vicinity of St. Jean and Iberville.

Eastern Townships.—This part of my district is well supplied with fine large bodies of water or streams as Memphremagog, Megantic, Massawippi, Aylmer, St. Francis, Brompton Lakes, &c. All being of easy access are visited by neighbouring residents and poachers who sometimes forget that all kinds of netting is prohibited in all the Eastern Townships. It is my opinion where there are no licenses issued, the provincial officers are not so much in evidence as they should be.

Respectfully submitted,

A. H. BELLIVEAU,
Inspector of Fisheries.

SESSIONAL PAPER No. 22

RETURN showing the Kinds and Quantities of Fish and Fish Products in the County of Bonaventure, Province of Quebec, for the Year 1906.

RESTIGOUCHE SUBDIVISION (Head of Tide to Maguacha).

Districts.	KINDS OF FISH.												Fish Products.			TOTAL VALUE OF ALL FISH.	Number.					
	Salmon, fresh, lb.	Herring, salted, brls.	Herring, lb.	Herring, smoked, lb.	LoBSTERS, pre- served in cans, lb.	LoBSTERS, fresh in shell, cwt.	Cod, dried, cwt.	Cod, tongues & sounds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Halibut, lb.	Trout, lb.	Smelts, lb.	Eels, brls.			Tom cod or frost fish, lb.	Fish oil, galls.	Fish as bait, lb.	Fish as manure, brls.	
<i>Bonaventure County.</i>	75409	150				15									60000		40000			3000	\$ 20,856 80	1
1 Restigouche																						

BONAVENTURE SUBDIVISION (Maguacha to Paspébiac Point).

		7000	100	4000	5000	144	10	60	60	3000	8	200	30	10	6000	5,374 00	1	
1.	Maguacha and Nouvelle	34000	400	4000	5000	144	10	60	60	4000	6000	600	30	20	9000	14,063 00	2	
2.	Carleton	40000	700	6000	15000		15	150	150	6000	6000	4000	22	6000	75	30	10000	
3.	Maria	25000	150	3000	3000		10	50	50	2000	2000	12000	25	10	6000	10,422 50	3	
4.	New Richmond and Black Capes		400	5000	6000	3360		1600	1600	5000	60	800	800	300	12000	18,110 00	5	
5.	Capelin	13000	400	5000	10000	4752	15	2400	3	10000	40	175	16000	1200	500	15000	29,996 75	6
6.	Bonaventure	1000	20	3000	2000		10	75	75	2000	5	20000	35	20	8000	5,910 50	7	
7.	New Carlisle		60	6000	7000		10	4000	6	7000	150	150	400	2000	1000	10000	30,589 50	8
8.	Paspébiac											800	35000	4				
Totals.		122000	2230	36000	48000	8256	70	8395	9	39000	255	342	400	34400	56000	54	11000	
																4195	1890	
															76000			

PORT DANIEL SUBDIVISION (Paspébiac Point to Point Macquereau).

1	Hopetown	150	3700	14736	1700	15	200	20	900	1000	.....	.....	1200	250	1600	15,465 00	1
2	Norville	200	5000	.....	1800	12	300	35	2000	2200	.....	.....	1500	500	2200	13,878 75	2
3	Shigawake	100	5000	16008	900	.....	40	.....	500	350	.....	.....	550	200	2400	10,437 00	3
4	Port Daniel	17500	500	10000	4600	20	800	65	2000	2500	15000	18	3000	1200	3300	40,902 25	4
5	Anse à Gascons	11000	500	.....	5500	30	900	75	3500	2000	.....	.....	4500	2000	1100	41,113 75	5
	Totals	28500	1450	23700	46368	.....	2240	195	8900	8050	15000	28	10750	4150	10600	122,296 75	

RETURN showing the Number and Value of Vessels and Boats, Nets, &c., in the County of Gaspé, in the Province of Quebec, for the Year 1906.

GRAND RIVER SUBDIVISION (Point Macquereau to Barachois.)

DISTRICTS.	FISHING BOATS.			FISHING GEAR OR MATERIALS.								LOBSTER PLANT.					
	Boats			Gill-nets.			Seines.			Trawls.		Hand Lines.		Canneries.			
	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.		
<i>Gaspé County.</i>																	
1	Newport	169	5000	411	354	5418	2709	2	79	80	51	612	774	387	2	400	1
2	Pabos	31	2248	69	91	2990	1536	3	90	145	16	160	256	128	1	200	2
3	Grand River	121	5100	347	340	7200	3298	3	163	95	69	1310	724	362	2	300	3
4	Cape Cove	102	4230	286	220	5850	2200	5	200	180	42	650	658	329	2	400	4
5	Percé and Bonaventure Island	43	2700	128	134	2680	1072	4	150	450	13	200	275	137	2	1000	5
6	Corner of Beach	14	700	30	42	1750	2030	.....	.....	...	2	50	82	41	1	300	6
Totals,		480	19978	1271	1181	25888	12845	17	615	910	193	2982	2769	1384	8	2200	

GASPÉ BAY SUBDIVISION (Barachois to Fame Point.)

1 Barachois and Malbaie	118	6935	211	211	3165	2954	17	1300	1000	.....	.....	633	253	1	200
2 Point St. Peter	20	980	30	33	660	495	1	50	40	.....	.....	99	40	.....	2
3 Chien Blanc to Sandy Beach	183	9150	324	322	4330	4508	16	950	800	.....	.....	966	386	3	3500
4 Gaspé North and South	5	250	7	16	1290	1100	.....	.....	.....	.....	.....	12	5	.....	4
5 Peninsula to Little Gaspé	38	1900	72	60	1200	1200	5	250	225	.....	.....	170	72	.....	5
6 Grande Grève to Ship Head	49	2450	59	75	1325	1500	3	150	120	.....	.....	224	90	.....	6
7 Cape des Rosiers to Jersey Cove	114	5700	232	223	3345	3791	4	80	65	.....	.....	669	267	.....	7
8 Griffin Cove	60	3600	132	128	1920	1640	1	25	20	.....	.....	393	157	.....	8
9 Fox River	115	6900	216	220	4400	3300	6	180	85	.....	.....	664	265	.....	9
10 Little Cape to Fame Point	106	5250	189	186	2890	3328	.....	.....	.....	.....	.....	558	233	.....	10
Totals	808	43135	1472	1474	25225	23816	53	2985	2355	.....	.....	4388	1768	4	3700

SESSIONAL PAPER No. 22

RETURN showing the kinds and quantities of Fish and Fish Products in the County of Gaspé, in the Province of Quebec, for the year 1906.

GRAND RIVER SUBDIVISION (Point Macquereau to Barachois).

Districts.	Kinds of Fish.										Fish as manure, brls.	Fish as bait, brls.	Fish oil, galls.	TOTAL VALUE OF ALL FISH.	Number.	
	Salmon, fresh, lb.	Herring, salted, brls.	Herring, smoked, lb.	Lobsters, preserved in cans, lb.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, dried, lb.	Halibut, lb.	Smelts, lb.						
Gaspé County.																
1	Newport	10138	200	.....	14560	4000	3	610	10	1800	9500	1800	800	2000	30,974	90
2	Pabos	36219	88	.....	10628	1400	.....	.....	.....	.....	5000	700	500	450	18,725	80
3	Grand River	7100	350	.....	10176	7233	15	.....	30	.....	5000	3650	300	2000	46,614	00
4	Cape Cove	9200	300	8000	21000	5000	.....	.....	75	1000	.....	1500	100	1500	36,405	00
5	Percé and Bonaventure Island	.....	75	.....	5424	4050	.....	.....	25	.....	.....	2025	.....	2025	24,913	50
6	Corner of Beach	28800	20	.....	7344	980	.....	.....	.....	.....	2000	490	.....	300	13,293	00
	Totals	84457	1033	8000	72132	22653	18	610	140	2800	21500	7550	1700	11305	170,926	20

GASPÉ BAY SUBDIVISION (Barachois to Famine Point.)

1	Barachois and Malbaie.....	7000	275	.....	10200	7798	.....	.....	.....	3000	5198	1175	.....	47,786	90
2	Point St. Peter.....	1000	50	.....	.....	1127	.....	.....	.....	.....	785	233	.....	6,670	00
3	Chien Blanc to Sandy Beach.....	11504	250	.....	18000	8762	.....	.....	.....	41496	5841	1788	.....	56,295	10
4	Gaspé North and South.....	69409	30	.....	.....	146	.....	.....	.....	.....	97	25	.....	16,903	26
5	Peninsula to Little Gaspé.....	6560	40	.....	.....	2179	.....	.....	.....	.....	1453	328	.....	13,331	90
6	Grande Grève to Ship Head.....	9804	50	.....	.....	2704	.....	.....	.....	.....	1803	511	.....	17,038	20
7	Cape des Rostiers to Jersey Cove.....	.....	80	.....	.....	5311	.....	.....	.....	.....	3541	1235	.....	29,809	80
8	Griffin Cove.....	.....	100	.....	.....	3100	.....	.....	.....	.....	2267	983	.....	19,654	60
9	Fox River.....	.....	100	.....	.....	6521	.....	.....	.....	.....	4347	1258	.....	36,296	10
10	Little Cape to Famine Point.....	.....	95	.....	.....	6018	.....	.....	.....	.....	4112	974	.....	33,229	60
	Totals.....	105277	1070	.....	28200	43966	.....	.....	.....	44496	29344	8510	.....	277,078	40

RETURNS showing the Number, Value of Vessels and Boats, Nets, &c., in the County of Gaspé, in the Province of Quebec, for the Year 1906.

MONT LOUIS SUBDIVISION (Fame Point to Claude River).

Number.	DISTRICTS.	FISHING BOATS.			FISHING GEAR OR MATERIALS.						LOBSTER PLANT.		KINDS OF FISH..							TOTAL VALUE OF ALL FISH.	Number.				
		Value.	Men.	Number.	Gill-nets.			Seines.		Hand Lines.		Canneries.		Salmon, fresh, lb.	Herring, salted, brls.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Halibut, lb.	Fish oil, galls.			Fish as bait, brls.	Fish as manure, brls.		
					Fathoms.	Value.	Number.	Number.	Value.	Number.	Value.	Number.	Values.												
<i>Gaspé County.</i>																									
1	Grand Etang to Chloxydorne.....	72	3200	135	260	7800	5000	3	110	65	270	270	1	300	70	6350	10	7600	3170	1140	....	35,529 00	1	
2	Petite Anse to Frigate Point.....	55	650	58	120	3000	1600	..	...	...	116	116	...	35	1880	12	5400	940	450	....	10,814 00	2	
3	Grand and Little Vallee.....	58	2100	99	165	4950	2750	1	30	20	198	200	...	35	2885	..	17000	1442	760	130	17,087 60	3			
4	Magdalen	33	600	50	70	2100	1000	..	...	96	96	...	...	125	1050	8	18000	525	300	....	7,902 50	4	
5	Manche d'Epée to Gros Mâle.....	45	676	61	90	2700	1400	122	122	1000	...	1100	350	1000	11000	500	250	7,825 00	5
6	Anse Pleureuse and Mont Louis....	77	2775	105	210	6300	4950	1	30	20	210	210	...	11000	220	3550	10	14000	1775	500	120	22,912 50	6		
7	Rivière à Pierre and Claude.....	60	725	92	125	3750	2600	..	...	182	182	...	...	700	..	10800	350	290	70	6,714 00	7		
Totals.....		380	10720	600	1040	30600	19300	5	170	105	1194	1196	1	300	1085	17415	40	83800	8702	3600	320	108,784 60	60		

SESSIONAL PAPER No. 22

RETURN showing the Number, Value of Vessels and Boats, Nets, &c., in the County of Gaspé, in the Province of Quebec,
for the year 1906.—*Continued.*

STE. ANNE DES MONTS SUBDIVISION (Claude River to Cape Chatte).

Number.	FISHING BOATS.			FISHING GEAR AND MATERIALS.								LOBSTER PLANT.		KINDS OF FISH.						TOTAL VALUE OF ALL FISH.	Number.
	Number.	Value.	Men.	Gill-nets.		Seines.		Hand Lines.		Canner- ies.	Salmon, fresh, lb.	Herring, salted, brls.	Cod, dried cwt.	Cod, tongues and sounds, brls.	Halibut, lb.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.			
				Number.	Fathoms.	Value.	Number.	Value.	Number.										Value.		
1Marsons and Martin River	4	120	8	6	140	100	..	16	16	..	1800	36	82	..	1400	70	20	..	1,043 00	1	
2Cap au Repard and Anse à Jean . .	4	72	5	4	82	60	..	10	10	..	..	42	41	..	360	37	10	..	451 90	2
3Ste. Anne's	110	1775	158	188	4100	2973	..	316	316	..	5300	1688	2046	..	9900	1940	350	..	21,134 00	3	
4Cape Chate	45	927	69	41	1110	582	..	82	82	..	6000	283	940	..	5400	830	70	..	7,831 00	4	
Totals	163	2894	240	239	5432	3715	..	424	424	..	13100	2049	3109	..	17060	2877	450	..	30,459 90		

RETURN showing the Number and Value of Vessels and Boats, Nets, &c., in the County of Gaspé Province of Quebec,
for the Year 1906.

MAGDALEN ISLANDS SUBDIVISION—SOUTH.

Number.	FISHING VESSELS AND BOATS.				FISHING GEAR OR MATERIALS.						LOBSTER PLANT.			
	Vessels.		Boats.		Gill-nets.		Seines.		Trap-nets.		Hand-lines.		Canneries.	
	Number.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Value.	Number.	Value.	Number.
<i>Districts.</i>														
<i>Gaspé County.</i>														
1 Entry Island	6	240	26	10	240	16	128	2200	700	.....	60	26	1	100
2 Amherst Island	6	240	26	135	4600	365	280	46080	9225	9	940	190	4	6500
3 Grindstone Island .....	.....	.....	.....	299	18200	715	265	4650	1275	6	1260	400	10	6250
Totals	6	240	26	445	23040	1097	3193	52930	11290	15	2260	616	15	12850
														36150
														26175

MAGDALEN ISLANDS SUBDIVISION—NORTH.

1 All Right Island	3	150	20	115	2900	295	75	1875	500	.....	10	4000	400	100	5	1000	6000	3000	1
2 Grand Entry .....	.....	.....	.....	60	1500	75	25	250	200	.....	12	4800	250	62	10	8000	12000	6000	2
3 Grosse Isle .....	.....	.....	.....	50	1300	68	20	200	150	.....	.....	.....	200	50	4	1200	3500	1750	3
4 Wolf Island .....	.....	.....	.....	10	250	25	5	60	50	.....	.....	.....	40	10	1	1000	1000	500	4
5 Bryon Island.....	.....	.....	.....	30	680	60	20	250	150	.....	.....	.....	120	60	3	1800	3000	1500	5
Totals.....	3	150	20	265	6630	523	145	2635	1050	.....	22	8800	1010	282	23	13000	25500	12750	

MAGDALEN ISLANDS SUBDIVISION SOUTH.

MAGDALEN ISLANDS SUBDIVISION—NORTH.[illegible]

RETURN showing the Number, Tonnage and Value of Vessels and Boats, Nets, &c.—Province of Quebec—Continued.
County of Saguenay.

GODBOUT SUBDIVISION (Tadoussac to Jambons).

Number.	Districts.	FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.						LOBSTER PLANT.				
		Vessels.			Boats.			Gill-nets.			Seines.		Trawls.		Hand-Lines.	Can-neries.	Traps.	
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.				Number.	Value.
															Number.	Value.	Men.	
<i>Saguenay County.</i>																		
1	Tadoussac to Bersimis.	2	30	850	4	43	860	67	53	3710	1855	...	34	10	...	...	1
2	Pointe aux Ourdes to Pointe des Monts.	4	53	540	8	48	960	62	97	4850	2425	...	4	115	87	26	2	
3	Trinity Bay to Jambons.	3	51	825	6	85	1650	78	115	5750	2875	...	4	240	275	5	168	3
	Total....	9	134	2215	18	176	3470	207	265	14310	7155	...	8	465	535	9	275	86

MOISIE SUBDIVISION (Jambons to Pigeon).

1	St. Margarets' Bay	...	...	...	...	4	30	8	7	1325	1200	...	20	10	...
2	(Caroussel Islands.	1	17	500	6	23	2300	48	38	1534	1050	...	92	46	...
3	Seven Islands Bay.	...	...	...	...	30	2625	79	60	5159	11210	...	120	60	...
	Moisie to Pigeon	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total.....	1	17	500	6	57	4955	135	105	8018	13460	...	232	116	...

MINGAN SUBDIVISION (Pigeon to St. Charles).

1	River aux Graines to Sheldrake.	...	...	...	...	54	3050	90	25	500	250	...	9	245	550	...
2	Thunder River.	...	...	...	...	59	4720	117	15	300	150	...	11	330	825	...
3	Dock to Juptagan.	...	...	...	...	15	750	28	5	250	250	...	3	90	215	...
4	Magpie	...	...	...	...	30	3000	74	5	300	300	...	7	210	525	...
5	St. Johns River	...	...	...	...	52	4160	113	3	400	400	...	4	130	250	...
6	Long Point, Mingan and Romaine.	...	...	...	...	27	2360	66	4	500	500	...	4	130	260	...
7	Esquimaux Point to St. Charles.	...	...	...	...	71	10000	195	2	40	40	...	7	210	525	...
	Total.....	...	...	...	...	308	28040	683	59	2290	1890	...	45	1345	3150	...

SESSIONAL PAPER No. 22

RETURN showing the kinds and quantities of Fish and Fish Products in the County of Saguenay, Province of Quebec, for the Year 1906.

GODBOUT SUBDIVISION (Tadoussac to Jambons).

Fishing Districts.	KINDS OF FISH.																		TOTAL VALUE OF ALL FISH.	Number.
	Salmon, fresh, lb.	Herring, salted, brls.	Herring, fresh, lb.	Herring, smoked, lb.	Lobsters, preserved in cans, lb.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Halibut, lb.	Trout, lb.	Smelts, lb.	Eels, brls.	Sardines, brls.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Seal skins, No.	White porpoises, No.		
<i>Saguenay County.</i>																				
1 ¹ Tadoussac to Bersimis.... des	87000	110	.....	.....	.....	.....	.....	1800	2700	1500	11	47	190	4680	3	190	435	93	\$ cts. 2,139 25
2 ² Pt. aux Outardes to Pt. des Monts.....	41000	38	.....	1600	1824	137	2	3950	1700	4700	2	14	85	1087	14	85	227	4	11,027 85
3 ³ Trinity Bay to Jambous....	90000	128	.....	.....	.....	963	3	13047	1950	..	..	9	237	1200	129	.....	172	1	25,344 91
Total.....	218000	276	.....	1600	1824	1100	5	18797	6350	6200	13	70	512	6967	146	275	834	98	57,772 01

MOISIE SUBDIVISION (Jambons to Pigeon).

1 St. Margarets' Bay.....	6012	15					208		420	542	.....	.....	.....	25	211	25	.....	39	.....	2,583 75
2 (Carouac Islands.....)	20765	215					904	6	1135	.....	.....	.....	.....	40	181000	169	40000	135	.....	84,644 30
3 Moisie to Pigeon.....	166240	.....					1435	.....	2450	1400	.....	.....	.....	39	2000	400	50	334	.....	42,337 00
Total.....	193017	230					2547	6	4005	1942	.....	.....	.....	104	183211	594	40050	508	.....	129,585 05

MINGAN SUBDIVISION (Pigeon to St. Charles).

1 River aux Graines to Sheldrake.....	1200	.....					2155		.....	.....	.....	.....	.....	.....	1800	250	.....	100	.....	12,067 00
2 Thunder River.....	4200	18200					2171		4500	.....	.....	.....	.....	.....	2000	250	.....	.....	.....	12,937 00
3 Dock to Jupitagan.....	.....	.....					772		.....	.....	.....	.....	.....	.....	700	100	.....	.....	.....	4,250 00
4 Magpie.....	10000	.....					2488		.....	.....	.....	.....	.....	.....	2200	300	.....	.....	.....	15,550 00
5 St. Johns River.....	2400	.....					3319		3000	.....	.....	.....	.....	.....	3000	400	.....	.....	.....	18,950 00
6 Long Pt. Mingan-Romaine.....	14800	.....					1542		3000	.....	.....	.....	.....	.....	1300	250	.....	.....	.....	11,735 00
7 Esquimaux Point to St. Charles.....	.....	17700					4750		.....	.....	.....	.....	.....	.....	5600	600	.....	424	.....	27,517 00
Total.....	32600	32100					17197		4500	5600	.....	.....	.....	.....	16600	2200	.....	524	.....	102,976 00

RETURN showing the Number and Value of Vessels and Boats, Nets, &c., in the County of Saguenay, Province of Quebec, for the Year 1906—Continued.

NATASHQUAN SUBDIVISION (St. Charles Island to Natashquan Point).

Number.	FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.					
	Vessels.			Boats.			Gill Nets.			Seines.		
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.
<i>Saguenay County.</i>												
1	Piasluer Bay to Pashashedbow				7	775	13	330	135	1	50	90
2	Agawaus and Nabissipi				25	2500	60	4	320	4	250	270
3	Mission Island				8	800	20			2	100	180
4	Natashquan				40	5000	120	40	8000	8	450	720
Total.....					80	9075	213	50	8650	15	850	1260

ROMAINE SUBDIVISION (Natashquan Point to Cape Whittle).

1	Kegashka	1	20	250	10	7	600	10	5	150	100	1	35	30	60	30	1
2	Wasbecootal					3	200	3	10	450	400						2
3	Romaine					23	640	23	19	500	222	2	90	90	64	450	32
4	Cocoaohoo	1	39	1200	13	11	370	12	12	340	155	2	150	250	48		3
Total.....		2	59	1450	23	44	1810	48	46	1340	877	5	275	370	2	450	86

ST. AUGUSTIN SUBDIVISION (Cape Whittle to Chicatica).

1	Ecananu and St. Marys					7	130	8	10	1000	1000						1
2	Harrington					75	1500	110	20	1750	1500	7	400	300	40	3200	13
3	Little Meccatina and Whale Head					40	800	70	15	1200	1000	5	300	300	6	2400	170
4	Mutton Bay					81	1600	120	10	1000	750	10	550	500	6	2400	2
5	Meccatina to Tabatiere					62	1200	100	10	1000	700	4	500	500	12	3600	106
6	Fonderie à Fecteau to St. Augustin					30	600	40	20	2000	1000	3	150	100	2	500	3
7	Point a Gironx to Chicatica					10	200	14	6	600	400	2	80	50	1	200	6
Total						304	6030	462	91	8550	6350	31	1980	1750	35	12300	566

SESSIONAL PAPER No. 22

RETURN showing the kinds and quantities of Fish and Fish Products in the County of Saguenay, Province of Quebec, for the Year 1906—*Continued.*

NATASHQUAN SUBDIVISION (St. Charles Island to Natashquan Point).

FISHING DISTRICTS.	LOBSTER PLANT.		KINDS OF FISH.										TOTAL VALUE OF ALL FISH.	Number.		
	Canneries.		Salmon, fresh, lb.	Salmon, salted, brls.	Herring, salted, brls.	Lobsters, pre- served in cans, lb.	Cod, dried, cwt.	Cod, tongues & sounds, brls.	Halibut, lb.	Trout, lb.	Eels, brls.	Fish oil, galls.			Fish as bait, brls.	Seal skins, No.
	Number.	Value.														
<i>Saguenay County.</i>																
1 Piashter Bay to Pashasheeboc	4	1025	7200	.....	20	9600	50	.....	1500	400	.....	300	50	90	4,467 50	1
2 Agwanus and Nabisippi . . . . .	.....	.....	13200	.....	.....	2000	1000	8	.....	.....	2	750	200	18	8,872 50	2
3 Mission Island . . . . .	.....	.....	.....	.....	52	.....	320	.....	.....	.....	.....	280	150	.....	2,169 00	3
4 Natashquan . . . . .	.....	.....	36735	.....	100	.....	2000	14	2000	500	12	2000	500	78	13,664 50	4
Total	4	1025	57135	.....	172	11600	3370	22	3500	900	14	3330	900	186	35,173 50	

ROMAINE SUBDIVISION (Natashquan Point to Cape Whittle).

1 Kegashka	1	100	.....	23	100	960	310	.....	1000	600	.....	260	100	20	2,918 00
2 Washecootal	.....	.....	.....	10	.....	8112	.....	.....	.....	.....	.....	.....	.....	.....	2,238 00
3 Romaine	2	150	.....	8	300	528	170	3	400	.....	4	250	75	55	2,940 25
4 Cocachoo	2	500	.....	4	90	3585	20	.....	.....	800	.....	160	5000	50	9,196 75
Total	5	750	.....	45	490	13185	500	3	1400	1400	4	670	5175	125	17,243 00

ST. AUGUSTIN SUBDIVISION (Cape Whittle to Chicatica).

1 Etanamu and St. Marys	.....	.....	.....	30	.....	.....	3500	.....	.....	1200	.....	300	300	100	1,235 00
2 Harrington	.....	.....	.....	5	220	.....	1500	.....	.....	.....	.....	3000	200	.....	19,875 00
3 Little Meccatina and Whale Head	.....	.....	.....	40	150	.....	.....	.....	.....	.....	.....	1200	950	.....	10,635 00
4 Matton Bay	.....	.....	.....	28	50	.....	2000	.....	.....	.....	.....	1750	200	56	11,357 50
5 Meccatina to Tabatiere.	.....	.....	.....	20	75	.....	1300	.....	.....	500	.....	7000	300	1750	12,712 50
6 Fonderie à Fecteau to St. Augustin.	.....	.....	.....	80	.....	.....	1000	.....	.....	3000	.....	950	175	75	7,141 25
7 Point à Giroux to Chicatica.	.....	.....	.....	10	10	.....	250	.....	.....	.....	.....	260	130	20	1,748 00
Total	.....	.....	.....	213	505	.....	9550	.....	.....	4700	.....	14460	2755	1955	64,904 25

RETURN showing the Number and Value of Vessels and Boats, Nets, &c., and the Quantity of Fish and Fish Products in the County of Saguenay, Province of Quebec.—Continued.

BONNE ESPERANCE SUBDIVISION (Chicatica to Blancs Sablons).

DISTRICTS.	FISHING VESSELS AND BOATS.						FISHING GEAR OR MATERIALS.					
	Vessels.			Boats.			Gill-nets.			Seines.		
	Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Value.
<i>Saguenay County.</i>												
1 Chicatica to Burnt Island	1	54	1000	5	35	1360	44	10	330	230	3	285
2 Bonne Esperance	1	90	4500	6	60	3000	95	18	2000	1600	4	450
3 Pidgeon Island to Salmon Bay					75	4200	116	20	1030	640	12	960
4 Little Fishery and Five League					9	550	11	4	200	100	2	80
5 Middle Bay and Belles Amours	2	104	2000	15	37	1900	74	2	100	50	6	400
6 Bradore	5	339	10500	35	57	3075	126				5	375
7 Long Point and Greenly Island					75	3200	125				4	275
Totals.	9	587	18000	61	348	17285	591	54	3660	2620	36	2685

ANTICOSTI ISLAND SUBDIVISION.

1 Fox Bay					15	150	34	1	250	60		
2 Bay St. Claire					10	500	20	10	400	200		
3 Strawberry Cove					20	750	25	10	400	200		
4 Shallop Cove					2	50	3	3	300	300		
Totals					47	1450	82	24	1350	760		

SESSIONAL PAPER No. 22

RETURN showing the Quantity of Fish and Fish Products in the County of Saguenay, Province of Quebec—Continued.

BONNE ESPERANCE SUBDIVISION (Chicatica to Blancs Sablons).

DISTRICTS.	FISHING GEAR OR MATERIALS.				LOUSTER PLANT.		KINDS OF FISH AND FISH PRODUCTS.										TOTAL VALUE OF ALL FISH.	Number.	
	Trawls.		Hand-lines.		Canneries.		Salmon, salted, brls.	Herring, salted, brls.	Lobsters, preserved in cans, lb.	Cod, dried, cwt.	Halibut, lb.	Trout, lb.	Coarse and mixed fish, brls.	Fish oil, galls.	Fish as bait, brls.	Seal skins, No.			
	Number.	Value.	Number.	Value.	Number.	Value.													
<i>Saguenay County.</i>																			
1 Chicatica to Burnt Island	15	60	203	63	.....	.....	20	6	.....	1680	.....	1400	44	2000	100	150	.....	9,895 50	1
2 Bonne Esperance .....	.....	.....	400	95	.....	.....	6	.....	.....	6000	.....	400	75	5000	400	.....	.....	32,380 00	2
3 Pidgeon Island to Salmon Bay	10	40	466	140	.....	.....	60	.....	.....	4800	.....	1000	65	4400	250	150	.....	27,012 50	3
4 Little Fishery to Five League .....	.....	.....	70	15	.....	.....	5	.....	.....	650	.....	.....	15	1300	50	250	.....	4,162 50	4
5 Middle Bay and Belle Amour	30	120	296	104	.....	.....	9	47	.....	1660	.....	200	30	1500	75	10	.....	9,325 00	5
6 Bradore .....	.....	.....	392	129	.....	.....	15	54	.....	4200	.....	800	204	6000	400	700	.....	25,708 00	6
7 Long Point and Greenly Island	40	400	500	225	.....	.....	5	115	.....	7000	.....	200	70	9000	500	1050	.....	40,572 50	7
Totals	95	620	2327	771	.....	.....	120	228	.....	20080	.....	4000	503	29200	1775	2310	.....	149,056 00	.....

ANTICOSTI ISLAND SUBDIVISION.

		FISHING GEAR OR MATERIALS.										LOUSTER PLANT.													TOTAL VALUE OF ALL FISH.		Number.																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Trawls.		Hand-lines.		Cameries.																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
1	Fox Bay.	40	10	1	16000	61248	

SESSIONAL PAPER No. 22

SAGUENAY COUNTY.

	1	2	3	4	5	6	7	8	9	22	660	3	225	289	86
1 Godbout.....	9	134	2215	18	176	3470	207	265	14310	7155	8	465	535	.....	.....
2 Moisie.....	1	17	500	6	57	4955	135	105	8018	13460	9	269	455	.....	.....
3 Mingan.....	.....	.....	.....	.....	308	28040	683	59	2290	1890	45	1345	3150	.....	.....
4 Natashquan.....	.....	.....	.....	.....	80	9075	213	50	8650	4265	15	850	1250	.....	.....
5 Romaine.....	2	59	1450	23	44	1810	48	46	1340	877	5	275	370	.....	.....
6 St. Augustin.....	.....	.....	.....	.....	304	6030	462	91	8550	6350	31	1980	1750	.....	.....
7 Bonne Esperance.....	9	587	18000	61	348	17285	591	54	3660	2620	36	2685	6240	.....	.....
8 Anticosti Island.....	.....	.....	.....	.....	47	1450	82	24	1350	760	.....	.....	.....	.....	.....
Totals.....	21	797	22165	108	1304	72115	2421	694	48168	37377	149	7869	13760	168	.....

GRAND TOTAL OF GULF DIVISION.

	1	2	3	4	5	6	7	8	9	22	660	194	7830	10709	4574
1 Bonaventure County.....	8	470	10000	40	1851	30190	2165	4874	103275	66445	222	6165	6715	.....	.....
2 Gaspé County.....	9	890	4700	46	2541	106337	5263	7272	142710	71927	90	5900	8330	.....	.....
3 Saguenay County.....	21	797	22165	108	1304	72115	2421	694	48168	37377	149	7869	13760	168	.....
Grand totals.....	38	1657	36865	194	5696	208702	9789	12840	294153	175749	461	19634	28805	200	.....

RECAPITULATION

Showing the Quantity and Value of all Fishing Materials and Kinds of Fish in the **Gulf Division**, Province of **Quebec**, for the Year 1906—*Continued*.

BONAVENTURE COUNTY.

SUBDIVISIONS.	LOBSTER PLANT.				OTHER FIXTURES USED IN FISHERIES.						KINDS OF FISH.						Number.				
	Canneries.		Traps.		Persons employed in canneries.	Freezers and Ice Houses.		Smoke and Fish Houses.		Piers and Wharfs.		Tugs, Steamers and Smacks.		Salmon, fresh, lb.	Salmon, salted, bbls.	Herring, salted, bbls.		Herring, fresh, lb.	Herring, smoked, lb.	Mackerel, fresh, lb.	Mackerel, salted, bbls.
	Number.	Value.	Number.	Value.		Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.								
1 Restigouche.	4	1100	2720	1875	22	35	6405	336	54175	2	30000	.....	.....	75409	.....	150	.....	48000	.....	.....	1
2 Bonaventure.	11	3250	11000	5800	236	15	1500	182	4925	.....	.....	1	450	122000	2239	1450	36000	23700	.....	.....	2
3 Port Daniel. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28500	.....	.....	36000	.....	.....	.....	3
Totals.	15	4350	13720	7675	258	50	7905	518	59100	2	30000	1	450	225909	.....	3830	36000	71700	.....	.....	.....

GASPÉ COUNTY.

1	Grand River..	8	2200	3500	1750	120	8	1050	123	54200	7	2050	.....	.....	84457	.....	1033	.....	8000	.....	1
2	Gaspé Bay..	4	3700	4000	4190	86	5	1400	195	54300	19	7700	.....	.....	105277	.....	1070	.....	.....	.....	2
3	Mont Louis..	1	300	.....	.....	.....	11	3200	17	3700	2	1000	.....	.....	26000	.....	1085	.....	.....	.....	3
4	Ste. Anne des Monts	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13100	.....	2049	.....	.....	.....	4
5	Magdalen Islands, South..	15	12850	36150	26175	458	12	2550	50	17000	10	6000	3140	90000	12000	7178	5
6	" " North.....	23	13000	25500	12750	410	26	9250	26	9250	15	5050	1130	50000	30000	6
Totals.		51	32050	65150	44865	1074	36	8200	411	138450	53	21800	228834	9507	146000	38900	12000	7178

SESSIONAL PAPER No. 22

SAGUENAY COUNTY.

	1	2	3	4	5	6	7	8											
1 Godbout.	1	375	65	38	5	45	900	2	55	2	300	2	1750	218000	276	1600	.....	.....	.....
2 Moisie.	1	.....	.....	.....	.....	1	500	30	6500	2	300	.....	20000	193017	230	.....	.....	.....	.....
3 Mingan.	1	100	200	200	4	1	400	85	18400	12	2100	.....	.....	32300	.....	32100	.....	.....	.....
4 Natashquan.	4	1025	700	700	19	.....	.....	127	9240	30	1450	.....	.....	57135	172	.....	.....	.....	.....
5 Romaine	5	750	1300	700	29	.....	.....	18	600	7	275	.....	.....	45	490	.....	.....	.....	.....
6 St. Augustin.	.....	.....	.....	.....	.....	.....	.....	110	2950	95	4225	.....	.....	213	505	.....	.....	.....	.....
7 Bonne Esperance.	.....	.....	.....	.....	.....	.....	.....	68	16250	70	8765	.....	9000	120	298	.....	.....	.....	.....
8 Anticosti Island.	1	16000	4500	1400	34	1	200	1	100	.....	.....	.....	7000	28	30	.....	.....	.....	.....
Totals.	12	18250	6765	3038	91	48	2000	441	54035	218	17415	8	37750	500752	1931	32100	1600	.....	.....

GRAND TOTAL OF GULF DIVISION.

	1	2	3																
1 Bonaventure County.	15	4350	13720	7675	258	50	7905	518	59109	2	30000	1	450	225909	3830	36000	71700	.....	.....
2 Gaspé County.	51	32050	69150	44865	1074	36	8200	411	138450	53	21800	.....	.....	228834	9507	140000	38000	12000	7178
3 Saguenay County	12	18250	6765	3038	91	48	2000	441	54035	218	17415	8	37750	500752	1931	32100	1600	.....	.....
Grand totals.	78	54650	89635	55578	1423	134	18105	1370	251645	273	69215	9	38200	955495	15268	214100	111300	12000	7178

RECAPITULATION

Showing the Kinds and Quantities of Fish and Fish Products in the Gulf Division, Province of Quebec, for the Year 1906—Concluded.

BONAVENTURE COUNTY.

SUBDIVISIONS.	KINDS OF FISH AND FISH PRODUCTS.																	TOTAL VALUE OF ALL FISH.	Number.				
	LoBSTERS, preserved in cans, lb.	LoBSTERS, fresh in shell, cwt.	Cod, dried, cwt.	Cod, tongues and sounds, brls.	Haddock, fresh, lb.	Haddock, dried, cwt.	Hake, dried, cwt.	Halibut, lb.	Trout, lb.	Smelts, lb.	Eels, brls.	Sardines, brls.	Tom cod or frost fish, lb.	Coarse and mixed fish, brls.	Fish, oil, galls.	Fish as bait, brls.	Fish as manure, brls.			Seal skins, No.	White whales, No.		
1 Restigouche.....	8256	15	835	9	39000	255	342	400	34400	56000	60000	54	40000	40000	4195	1890	3000	.....	.....	.....
2 Bonaventure.	8256	70	835	9	39000	255	342	400	34400	56000	60000	54	11000	11000	10750	4150	70000	.....	.....	.....
3 Port Daniel	46368	.....	14500	77	.....	2240	195	8900	8050	15000	15000	28	.....	.....	.....	.....	10600	.....	.....	.....
Totals.....	54624	85	22895	86	39000	2495	537	9300	42450	131000	82	51000	14945	6670	89600			
Number.																						cfs.	%

GASPE COUNTY.

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SESSIONAL PAPER No. 22

SAGUENAY COUNTY.

	1	2	3	4	5	6	7	8							
1 Godbout.....	1824	1100	5	18797	6350	6200	13	76	512	6967	146	275	834	98	57,772 01
2 Moisie.....	2547	2547	6	4005	1942				104	183211	594	40050	508		120,085 05
3 Mingan.....	1920	17197		4500	6000					16600	2200		524		102,976 00
4 Natashquan.....	11600	3370	22	3500	900		14			3330	900		186		35,173 50
5 Romaine.....	13185	500	3	1400	1400		4			670	5175		125		17,293 00
6 St. Augustin.....		9550			4700					14460	2755		1995		64,304 25
7 Bonne Esperance.....		26080			4000				503	29200	1775		2310		149,056 00
8 Anticosti Island.....	61248	550		3000						275	990				20,289 50
Totals.....	89777	60894	36	35202	25292	6200	31	70	1119	254713	14535	40325	6482	98	577,049 31

GRAND TOTAL OF GULF DIVISION.

1 Bonaventure County	54624	85	22895	86	39000	2405	537	9300	42450	131000	82	51000	14945	6040	89600	277,172 55				
2 Gaspé County	654899	94696	73	610	140	106660	65996	119	63996	6200	31	70	147174	96910	5570	1,076,505 40				
3 Saguenay County	89777	60894	36	35202	25292	6200	31	70	1119	254713	14535	40325	6482	98	577,049 31					
Grand totals	798800	85	178485	195	39610	2635	537	151162	67742	203196	232	70	51000	1119	416832	117485	135495	33389	98	1,936,727 26

RECAPITULATION.

STATEMENT showing Yield and Value of Fisheries in Gulf Division, Province of Quebec, for the Season of 1906.

Description.	Quantity.	Price.		Value.
		\$	cts.	
Salmon, fresh in ice..... Lb.	954,495	0	20	191,099 00
" salted..... Brls.	406	15	00	6,090 00
Herring, "..... "	15,268	5	00	76,340 00
" fresh..... Lb.	214,100	0	01	2,141 00
" smoked..... "	111,300	0	02	2,226 00
Mackerel, fresh..... "	12,000	0	12	1,440 00
" salted..... Brls.	7,178	15	00	107,670 00
Lobsters, canned..... Lb.	798,800	0	25	199,700 00
" fresh in shell..... Cwt.	85	5	00	425 00
Cod, dried..... "	178,485	5	00	892,425 00
Cod tongues and sounds..... Brls.	195	10	00	1,950 00
Haddock, fresh..... Lb.	39,610	0	03	1,188 30
" dried..... Cwt.	2,635	3	00	7,905 00
Hake, "..... "	537	2	25	1,208 25
Halibut..... Lb.	151,162	0	03	9,534 86
Trout..... "	67,742	0	10	6,774 20
Smelt, in ice..... "	203,196	0	05	10,159 80
Eels, cured..... Brls.	232	10	00	2,320 00
Sardines, cured..... "	70	3	00	210 00
Tom cod..... Lb.	51,000	0	03	1,530 00
Coarse and mixed fish..... Brls.	1,119	2	00	2,238 00
Fish and whale oil..... Galls.	416,832	0	30	125,049 60
Fish as bait..... Brls.	117,485	1	50	176,227 50
Fish as manure and fertilizer..... "	135,495	0	50	67,747 50
Seal skins..... No.	33,389	1	25	41,736 25
White whale skins..... "	98	4	00	392 00
Total value, 1906.....	✓			1,930,727 26
" 1905.....	✓			1,750,514 50
Increase.....				180,212 76

SESSIONAL PAPER No. 22

RECAPITULATION

Showing Number of Men, Vessels and Boats, and Value of material employed in Gulf
Division Fisheries for Season of 1906.

Description.	Value.
	- \$ cts.
38 vessels of 1,657 tons, manned by 194 men.....	36,865 00
5,696 fishing boats, fished by 9,789 men.....	208,702 00
294,153 fathoms of gill net.....	175,749 00
19,934 " seines.....	28,805 00
200 trap-nets for herring and cod.....	78,250 00
740 trawls.....	10,777 00
22 weirs.....	660 00
246 smelt and seal nets.....	11,410 00
29,984 hand lines and sinkers.....	13,084 00
78 canneries for lobsters.....	54,650 00
89,635 lobster traps.....	55,578 00
134 freezers and ice houses.....	18,105 00
1,370 smoke and fish houses.....	251,645 00
273 private piers, wharfs and stages.....	69,215 00
9 tugs and smacks.....	38,200 00
Total.....	1,051,695 00

RETURN of the number of Fishermen, Value of Boats, Nets, &c., and the Kinds and
Lévis, both inclusive, Province

Number.	DISTRICTS.	FISHING MATERIALS.							KINDS				
		Boats.			Gill Nets.			Brush or Eel Weirs.	Salmon, fresh, lb.	Herring, salted, bbls.	Herring, fresh, lb.	Herring, smoked, lb.	Cod, dried and green, lb.
		Number.	Value.	Men.	Number.	Fathoms.	Value.	Number.					
1	Capucins	20	170	30	16	400	200	1	20	2900	25	1000	62000
2	Petit & Grand Mechins...	70	1250	102	93	2410	1100				350	3200	251000
3	Grosses Roches	20	200	35	25	600	300				100	1500	61500
4	Ste. Felicité	25	275	60	30	750	500	2	50		600	2500	72000
5	Matane	25	300	40	20	500	400	14	600	11250	400	5000	61200
6	Rivière Blanche	26	420	36	38	800	350				375	4600	55000
7	Sandy Bay	60	700	50	190	3040	1050	2	60		1300	10000	60000
8	Metis and vicinity	18	450	20	8	200	140	6	180	5500	80		12000
9	Ste. Flavie and Ste. Luce.	24	300	37	39	980	475	9	630	3000	360	12000	5000
10	Rimouski & Inland Lakes.	4	20	25				24	2250	2120	385	10800	
11	Bic	1	5	5				5	500	300	75	4000	
12	St. Fabien and St. Simon.	1	5	5				4	300	1230	70	4400	
13	Trois Pistoles	1	10	13				7	500	980	70	632000	
14	Isle Verte and vicinity...	32	350	60				34	2100	3800	400	896000	66800
15	Cacouna	23	200	32				21	2140	8170	153	32200	43350
16	Lake Temiscouata and tri- butaries			20	35	700	200						
17	Riv. du Loup and N. D. du Portage	8	70	24	11	440	110	18	990	600	10	32000	
18	St. André	2	30	26				12	1500	35	45	208000	4800
19	Kamouraska			10				5	1000	90	6	6400	200
20	St. Denis			14				9	400	1600	16	44000	120
21	River Ouelle			24				18	2150	1000	20	19200	
22	St. Anne de la P.			10				8	500				
23	St. Roch			7				7	450				
24	St. Jean Port Joli			12				11	450				
25	L'Islet and Cap St. Ignace			17	1	80	25	23	2100				
26	Crane and Grosse Islands.			5	3	300	125	3	500				
27	St. Thomas	3	40	5	5	320	60	4	850				
28	Berthier	8	140	26	13	500	180	23	5580	120			
29	St. Valier	8	75	8				4	7600	350			
30	St. Michel	14	150	14				9	4200	280			
31	Beaumont	18	255	18				8	8250	600			
32	St. Joseph and Lévis	14	130	14				8	6800	300			
33	St. Romuald and New Liverpool	3	60	3				2	500				
34	St. Nicholas	10	120	10				7	3000	250			
Totals		438	5725	817	527	12020	5215	208	56500	44475	4840	1919800	123770
Values									6671	21780	19198	2475	31985

SESSIONAL PAPER No. 22

Continued.

Value of all Fish in the South Shore District extending from County Rimouski to of Quebec, for the Year 1906.

OF FISH AND FISH PRODUCTS.

Halibut, lb.	Trout, lb.	Shad, lb.	Smelts, lb.	Whitefish, lb.	Bass, lb.	Pickered, lb.	Eels, lb.	Sardines, brls.	Sturgeon, lb.	Coarse and Mixed Fish, lb.	Fish oil, galls.	Fish as bait, brls.	Fish as manure, brls.	Seal skins, No.	Clams, brls.	Beluga skins, No.	VALUE.	Number.
																	\$ cts.	
5000											40	8			100		3,696 50	1
1700	450										480	92	150	60			15,199 00	2
500											275	65	50				3,770 00	3
1750											200	70					6,577 50	4
2800	250							75			150	50	60				7,187 50	5
2000											195	30	35				4,764 50	6
3500											200	35	80				9,357 50	7
5000											50	22	250				2,208 00	8
1250											15	12	1900				3,475 00	9
2200	15000							30					100				3,908 50	10
													275				560 00	11
													30				558 50	12
			1500				100	105	180	9800			440				7,506 80	13
		4700	6000				500	525	1160	148400	450		6680			9	19,917 60	14
		1600					5000	760	520	20800	13		936	9			6,391 35	15
																	420 00	16
	2200			2000														
		25					10350	120	100	5200	15		234	6			1,624 50	17
							7730	380	1350	2000	15						4,093 05	18
		1030						480	5000	4000	90		180				2,067 30	19
		2000					7900	400	200	1600	10		80	5			2,625 65	20
		600					50700	236		3600	440		160			33	4,598 00	21
							14050										1,388 00	22
	5450						17900			960			45				1,106 10	23
							12400										1,074 00	24
	3300						2560		5500	620			30				504 80	25
					600		10320				65			20			723 70	26
				50	1500	200	2909		26400	3000							1,063 00	27
		400		8700	225	100	11350		37900	1650	36			2		1	3,933 30	28
		1300		750	900	250	5400		6350	4400	12			3			1,076 85	29
		945		1010	850	400	28800		1375	1300	15						2,152 70	30
		4800		10700	1300	620	31000		4080	6700							3,811 80	31
	800	2000		850	550	300	52400		1000	6300							3,682 00	32
																	278 00	33
		4500		100	110	200	3600			2100							1,742 50	34
				1800	640	1800	10250		5400	7200								
25700	27450	23900	7500	25900	6675	3870	285210	3111	96515	229630	2766	334	11715	45	160	43		
1285	2745	1434	375	2596	668	387	17113	9333	5791	2296	830	576	5858	56	320	172	133,943 50	

SESSIONAL PAPER No. 22

all Kinds of Fish caught in the inland District from Quebec to Pontiac, in the for the Year 1906.

KINDS OF FISH.

Whitefish, lb.	Trout, lb.	Bass, lb.	Pickeral, lb.	Pike, lb.	Maskinonge, lb.	Sturgeon, lb.	Eels, lb.	Perch, lb.	Catfish, lb.	Mixed and coarse fish, lb.	Bullheads, lb.	VALUE.	Number.
												\$ cts.	
7,400	49,200	10,300	19,600	47,600	1,500	18,500	8,700	7,300	7,500	115,500	8,000	17,267 00	1
.....	2,000	1,600	2,000	1,900	600	1,700	5,000	8,000	3,000	7,000	6,000	2,117 00	2
.....	.....	400	600	500	100	400	1,500	1,000	1,000	1,200	800	405 00	3
.....	10,000	500	2,000	1,000	150	900	2,000	1,000	500	5,900	1,000	1,808 00	4
300	5,000	200	1,000	2,200	200	1,000	1,200	4,200	1,500	20,000	4,000	2,027 00	5
.....	.....	200	600	2,000	150	900	4,200	4,000	2,200	16,000	3,000	1,397 00	6
1,000	2,200	500	1,000	2,000	300	1,000	3,100	3,000	2,000	6,000	2,500	*3,012 20	7
1,100	.....	1,100	2,500	5,800	250	1,900	12,000	1,300	2,200	52,300	3,100	3,642 00	8
.....	.....	800	3,000	1,200	400	1,000	11,100	2,400	800	65,500	1,100	3,360 00	9
300	.....	300	1,000	2,000	200	600	6,000	3,000	600	10,000	1,000	1,236 00	10
.....	.....	4,200	3,000	24,000	.....	250	86,000	34,300	.....	111,700	37,200	14,021 00	11
250	.....	200	600	950	200	650	1,500	1,200	300	10,000	800	710 50	12
500	.....	200	600	1,000	100	700	1,000	1,100	900	40,000	900	1,647 80	13
.....	.....	1,000	500	450	150	300	600	1,000	500	5,000	700	521 50	14
.....	.....	2,100	1,200	1,100	400	1,800	5,800	11,000	2,300	15,500	6,600	2,277 00	15
.....	.....	2,000	1,500	1,000	400	5,000	40,000	2,000	2,000	1,000	1,000	3,380 00	16
7,900	.....	.....	34,400	5,500	.....	.....	.....	51,700	.....	32,000	8,200	8,460 00	17
7,800	17,700	7,200	10,200	6,500	.....	.....	2,000	10,500	.....	14,400	.....	5,692 00	18
26,550	86,100	32,800	85,300	106,700	5,100	36,600	191,400	148,000	27,300	528,100	85,900	.....	.....
2,655	8,610	3,280	8,530	5,335	510	2,196	11,484	7,400	819	15,843	4,295	72,991 00	.....

* In No. 7, add 50,000 lb. Tom-cod—\$1,500 and 160 lb. Salmon, \$24.

STATEMENT.

NORTH SHORE of the St. Lawrence from Quebec to the Saguenay, including Lake St. John District, 1906.

Fishing Materials and Kinds of Fish.		Counties of Quebec and Mont- morency, with Isle d'Orleans.	Charlevoix and Isle aux Coudres.	Lake St. John and Tributaries, including Saguenay River.	Total Quantity.	Total Value.
<i>Materials.</i>						
Boats	No.	15	16	8	39	283
Weirs	No.	123	46		169	11,620
Gill nets	Fathoms	350	330	600	1,280	252
Lines	No.	45	41	40	126	105
Total value						12,260
<i>Kinds of Fish.</i>						
Salmon	Lbs.	1,400	3,900	47,000	52,300	7,845
Herring	"		4,200		4,200	42
Whitefish	"	2,000		5,000	7,000	700
Trout	"	7,400	14,600	16,300	38,300	3,830
Ouananiche	"			9,450	9,450	945
Pickarel	"	800		23,000	23,800	2,380
Pike	"			4,500	4,500	225
Perch	"	200		700	900	45
Eels	"	251,400	56,500		307,900	18,474
Mixed fish	"	26,600	154,600	28,300	209,500	2,095
Sardines	Brls.	70	125		195	585
Beluga skins	No.			52	52	208
Total lbs		303,800	258,800	134,250	690,850	
Values		\$ 16,800	7,398	13,176		37,374

SESSIONAL PAPER No. 22

RECAPITULATION

SHOWING the Yield and Value of the Fisheries of the Province of Quebec,
(exclusive of the Gulf Division), for the Year 1906.

Kinds of Fish.	Quantity.	Price.	Value.	
		\$ cts.	\$ cts.	
Cod, green	Lb.	639,700	0.05	31,985 00
Halibut	"	25,700	0.05	1,285 00
Salmon	"	96,935	0.15	14,540 25
Ouananiche	"	9,450	0.10	945 00
Trout	"	151,850	0.10	15,185 00
Whitefish	"	59,510	0.10	5,951 00
Herring, salted	Brls.	4,840	4.50	21,780 00
" fresh	Lb.	1,924,000	0.01	19,240 00
" smoked	"	123,770	0.02	2,475 40
Sardines	Brls.	3,306	3.00	9,918 00
Shad	Lb.	32,400	0.06	1,944 00
Eels	"	784,510	0.06	47,070 60
Maskinongé	"	5,100	0.10	510 00
Bass (sea)	"	6,675	0.10	667 50
" (Achigan)	"	32,800	0.10	3,280 00
Pickarel (Doré)	"	112,970	0.10	11,297 00
Pike	"	111,200	0.05	5,560 00
Perch	"	148,900	0.05	7 445 00
Sturgeon	"	133,115	0.06	7,986 90
Tom-cod	"	50,000	0.03	1,500 00
Smelts	"	7,500	0.05	375 00
Bull-heads, dressed	"	85,900	0.05	4,295 00
Catfish	"	27,300	0.03	819 00
Coarse fish	"	967,230		20,234 30
Clams	Brls.	160	2.00	320 00
Fish as bait	"	384	1.50	576 00
" as fertilizer	"	11,715	0.50	5,857 50
" oil	Galls	2,766	0.30	829 80
Hair seal skins	No.	45	1.25	56 25
Belugas (white whales) skins	"	95	4.00	380 00
Total for 1906				244,308 50
" for 1905				253,201 80
Decrease				8,893 30

RECAPITULATION

SHOWING the Fishing Materials in the above Districts, 1906, (exclusive of the Gulf Division.)

Articles.	Value.
	\$ cts.
1,337 fishing boats (1,910 men)	13,823 00
17,290 fathoms of gill-nets	5,492 00
1,566 " seines	155 00
377 weirs, (brush or wire)	68,120 00
2 large weirs (special for eels)	60,000 00
1,340 hoop-nets	6,700 00
night lines and hand lines	1,350 00
21 fish houses or ice houses	180 00
Total	155,820 00

7-8 EDWARD VII., A. 1908

RECAPITULATION

Of the Fisheries product of the whole Province of Quebec, for the Year 1906.

Kinds of Fish.	Quantity.	Price.	Value.	Total Value.
		\$ cts.	\$ cts.	\$ cts.
Salmon fresh.....Lb.	1,051,430		205,639 25	
" salted.....Brls.	406	15 00	6,090 00	211,729 25
Ouananiche.....Lb.	9,450	0 10		945 00
Trout....."	219,592	0 10		21,959 20
Whitefish....."	59,510	0 10		5,951 00
Smelts....."	210,696	0 05		10,534 80
Cod, dried.....Cwt.	178,485	5 00	892,425 00	
" green.....Lb.	639,700	0 05	31,985 00	
" tongues and sounds.....Brl.	195	10 00	1,950 00	926,360 00
Haddock dried.....Cwt.	2,635	3 00	7,905 00	
" fresh.....Lb.	39,610	0 03	1,188 30	9,093 30
Hake, dried.....Cwt.	537	2 25		1,208 25
Halibut.....Lb.	176,862			5,819 86
Tom-cod....."	101,000	0 03		3,030 00
Herring, fresh....."	2,138,100	0 01	21,381 00	
" smoked....."	235,070	0 02	4,701 40	
" salted.....Brls.	20,108		98,120 00	124,202 40
Sardines....."	3,376	3 00		10,128 00
Shad.....Lb.	32,400	0 06		1,944 00
Mackerel, fresh....."	12,000	0 12	1,440 00	
" salted.....Brls.	7,178	15 00	107,670 00	109,110 00
Bass, (sea).....Lb.	6,675	0 10		667 00
" (Achigan)....."	32,800	0 10		3,280 00
Pickrel....."	112,970	0 10		11,297 00
Perch....."	148,900	0 05		7,445 00
Pike....."	111,200	0 05		5,560 00
Maskinonge....."	5,100	0 10		510 00
Eels, fresh....."	784,510	0 06	47,070 60	
" cured.....Brls.	232	10 00	2,320 00	49,390 60
Sturgeon.....Lb.	133,115	0 06		7,986 90
Lobster in cans....."	798,800	0 25	199,700 00	
" fresh in shell.....Cwt.	85	5 00	425 00	200,125 00
Clams.....Brls.	160	2 00		320 00
Bullheads, dressed.....Lb.	85,900	0 05		4,295 00
Catfish....."	27,300	0 03		819 00
Coarse fish....."	1,191,030			22,472 30
Fish as bait.....Brls.	117,869	1 50		176,803 50
" as fertilizer....."	147,210	0 50		73 605 00
" oil.....Gall.	419,598	0 30		125,879 40
Hair seal skins.....No.	33,434	1 25		41,792 50
White whale skins....."	193	4 00		772 00
Total for 1906.....				2,175,035 76
" 1905.....				2,003,716 30
Increase.....				171,319 46

SESSIONAL PAPER No. 22

RECAPITULATION

Of the Capital invested in Vessels, Boats, Nets, &c., in the Fisheries of all Quebec,
for the Year 1906.

Articles.	Value.	Total.
	\$	\$ cts.
38 fishing vessels (1,657 tons).....	36,865	
7,033 " boats.....	222,525	
		259,390 00
311,443 fathoms of gill-nets.....	181,241	
21,500 " seines.....	28,960	
200 trap-nets for herring and cod.....	78,250	
740 trawls.....	10,777	
399 weirs.....	68,780	
2 large eel-weirs.....	60,000	
1,340 hoop-nets.....	6,700	
246 smelt-nets and seal-nets.....	11,410	
..... hand lines and night lines.....	14,434	
		460,552 00
78 lobster canneries.....	54,650	
89,635 " traps.....	55,578	
		110,228 00
155 freezers and ice houses.....	18,285	
1,370 smoke and fish houses.....	251,645	
273 private piers, wharfs and stages.....	69,215	
9 tugs and fishing smacks.....	38,200	
		377,345 00
Total.....		1 207,515 00

STATEMENT of the persons engaged in the Quebec Fisheries, 1906.

Number of men in fishing vessels.....	194
" " " boats.....	11,699
" persons in lobster canneries.....	1,423
Total.....	13,316

APPENDIX No. 6.

ONTARIO.

GENERAL REMARKS, FISHERY SEASON 1906.

The following statements are taken from the Provincial Report of Ontario :

RAINY RIVER

That portion of the province little known to those living in the eastern part is from Kenora across the southern boundary of the Lake of the Woods to the Rainy River. The sail of eighty miles down this noble stream to the thriving town of Fort Francis is one of the most enjoyable that can be taken in Canadian waters. Fort Francis is the gateway to the Rainy River district, where fresh water fishing of nearly every kind is excellent.

Restocking was carried on as in former years, but not to the extent that the department would have liked, owing to the lateness of the parent bass coming into waters where they could be taken, and afterwards the weather turned so hot that the difficulty of handling them without much loss was great. Your consideration of securing breeding ponds is again asked. If for instance, during the past summer when it was possible to secure the bass in large quantities, they could have been deposited in some small lakes or ponds on our principal railways at a reasonable distance from the breeding grounds, to be finally deposited in the waters the department thought suitable, and at a time when it was thought best for the interests of the public, they could be handled with less loss. In the autumn, fingerlings can be secured in large quantities, but owing to the shortness of the days and the cool weather often experienced at night, carrying them to any distance is found to be somewhat difficult; but if they could be placed until the following spring in breeding ponds, they could be handled much more easily. There is another drawback in taking them to their destination in the autumn. As soon as the tourists leave for home, the navigation companies put a great many of their boats out of commission, so sometimes much delay is caused in taking them from the train to the boat.

NEPIGON.

Nepigon, the famous stream for speckled trout, has this year seen more tourists than in any former year. The fishing has been reported excellent, and no stronger recommendation can be given than that summer after summer the same ardent fishermen journey many miles to whip the stream that has no rival in trout fishing. The reputation of this stream has extended much further than this continent, and many a well known name, famous abroad, will be seen among those who have purchased angling permits. One well known merchant of Capetown visits Canada periodically with the express object of enjoying the trout fishing on the Nepigon.

TEMAGAMI.

Temagami, a few years ago, was unknown to a vast majority of Canadians, but every summer more and more seem to find out this most charming summer resort where the fishing is reported excellent: and these waters, if carefully watched over, will never

SESSIONAL PAPER N^o. 22

require to be re-stocked. The patrol boat did splendid service during the past summer, and no complaints have reached the department of any illegal fishing. If the increase of visitors last summer was any indication of what we may yearly expect, it may be necessary in the near future to purchase a boat to be used exclusively for patrol purposes on these waters.

SUPPLYING THE HOME MARKET.

Referring to this matter in the Report for 1905, the then Deputy Commissioner of Fisheries did so as follows: 'The circular letter which in 1904 was addressed to every licensed fisherman in the province notifying him that he must make arrangements for supplying the local demand for fish does not appear to have received that attention which was hoped and expected.' This is a question of dollars and cents, and not of patriotism and sentiment. It rests with the public and not with the fishermen to establish a home market, which can only be accomplished in two ways, namely, by the Dominion Government prohibiting export, or residents of the province being prepared to pay the price for Ontario fish they realize in the United States. The public fail to recognize the changed conditions from those prevailing fifteen years ago. At that time the fresh water fisheries of the United States had not been depleted, neither was the fishing business of Ontario controlled by powerful American combines. Not many years back, fishermen on the shores of Lake Erie were satisfied to sell herring at one cent per pound, and whitefish and salmon trout at five cents a pound—the price now realized in many markets for the much abused carp. However desirable it may be to have our home markets abundantly supplied with good wholesome fish, this will not occur under present conditions, but our fish will reach those markets paying the most for them.

POLLUTIONS.

This is becoming a serious matter on streams and other public waters, on the banks and shores of which are located so many of the manufacturing establishments of the province. Unfortunately, many of the municipalities who suffer most from the pollution of public waters are to a large extent unable to have such nuisances abolished. When complaints are made, the authorities are held up, the factory or mill owners threatening to remove their establishments unless allowed to pollute the rivers and streams with impunity, as in 1905, when the department had trouble on the Grand river near Berlin. It is of little use re-stocking waters with black bass at great expense, and have them destroyed by hundreds with deleterious matter from sugar or other factories. Having been informed that hundreds of dead bass and other fish lay on the shores of the Grand river near a sugar factory, and were a menace to the health of the public, I at once sent a member of the staff to investigate. The reeve had the dead fish buried. Samples of the refuse water from the factory were taken, and analysis proved it to be most destructive. Unless the municipal authorities will undertake to assist the department in protecting the rivers and streams re-stocked by the department, the municipalities should be allowed to do the re-stocking and pay for it.

CARP.

The numerous members of this family are fresh water fish, confined to the Old World and North America, being quite unknown in the southern half of the New World, and also in Australia, showing much less diversity of form and habits than the catfish. The carp tribe are for the most part omnivorous, although some of the members of this extensive and varied family restrict themselves to a vegetable diet. Although some of them prefer muddy situations, where their barbels are probably of assistance, the majority of the carp differ from the catfish in selecting clear water for their haunts. On account of their more cleanly feeding habits, the flesh of the carp is

superior and more healthy food than the flesh of the catfish taken from their dirty surroundings, preferring still waters with a soft muddy bottom, in which it grovels with its snout for food. The carp feeds on various vegetable substances, as well as on insects and other small aquatic invertebrates. In many of the waters of the United States and Canada, the carp has taken kindly to its new habitat, not unfrequently attaining as much as a yard in length with a weight of 25 lbs., while very much larger specimens are on record. When the surface of their haunts is locked in ice, carp lie deeply buried in holes in the mud, consorting in numbers, and undergoing a partial hibernation, which is not broken until the returning warmth of spring. Their growth is extremely rapid, and their fecundity extraordinary, nearly three-quarters of a million eggs having been counted in the roe of a medium-sized specimen. They will live a long time out of water, if moistened from time to time, and are known to live to a great age. No doubt the carp has a place and is here for a beneficial purpose in nature's great and perfect plan, same as all other creations. Evidently that place is to supply the increasing millions of inhabitants of this vast continent with an abundance of cheap wholesome food. No person fifty years ago would have believed that the repulsive looking catfish would ever become a feature in the food and commercial fish business. The carp is evidently here to stay—a striking illustration of Darwinism. The time is not far distant when carp will not be considered as now, a nuisance. To in some measure reduce the present tendency to deplete the waters of our great lakes of the most valuable species of fish, it is imperative that the immense supply of carp available should be utilized, then there would be no difficulty in keeping them in reasonable bounds. Any man or men who will succeed in devising some method of curing, drying or salting carp so as to cause them to become a factor in commerce will be public benefactors and entitled to the thanks of posterity.

STATISTICS FOR ONTARIO

7-8 EDWARD VII., A. 1908

ONT

RETURN of the number of Fishermen, Tonnage and Value of Tugs, Vessels

[illegible]

SESSIONAL PAPER No. 22

ARIO.

Boats and Nets, &c., and Fish caught during the Year of 1906.

KINDS OF FISH.														
Herring, fresh, lb.	Whitefish, lb.	Trout, lb.	Pickeral or Doré, lb.	Pike, lb.	Sturgeon, lb.	Tullibee, lb.	Catfish, lb.	Mixed and coarse fish, lb.	Caviare, lb.	Sturgeon bladders, No.	Trout, salted, brls.	Whitefish, salted, brls.	Value.	Number.
													\$ cts.	
.....	165200	34600	92700	58100	50900	500	75200	.....	2850	100	.....	.....	43,767	1
.....	50100	.....	30300	20000	.....	.....	.....	.....	.....	.....	.....	.....	8,840	2
.....	3800	4600	23000	4700	.....	.....	.....	.....	.....	.....	.....	.....	3,328	3
.....	4700	6300	1500	900	.....	.....	.....	.....	.....	.....	.....	.....	1,286	4
.....	19500	19000	9800	7800	.....	4000	.....	.....	.....	.....	.....	.....	5,382	5
.....	41700	7400	45100	11700	.....	.....	.....	.....	.....	.....	.....	.....	9,888	6
.....	.....	.....	.....	.....	.....	.....	3600	.....	.....	.....	.....	.....	288	7
.....	43000	26100	27200	10600	.....	400	4100	.....	.....	.....	.....	.....	10,406	8
.....	60200	2100	15000	.....	3100	.....	.....	.....	200	.....	.....	.....	8,118	9
.....	388200	100100	244600	113800	54000	4900	82900	.....	3050	100	.....	.....	.....	.....
.....	38820	10010	24460	4552	4320	294	6632	.....	2135	80	.....	.....	91,303	.....
.....
176800	274900	1058750	19250	300	.....	.....	.....	2500	.....	.....	691	158	152,707	1
400	4800	64300	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	7,010	2
18800	20800	12500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,270	3
.....	6600	13400	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,000	4
.....	33100	317700	.....	.....	.....	3900	.....	.....	.....	.....	209	.....	37,404	5
.....	33700	191200	.....	.....	.....	3200	.....	.....	.....	.....	153	.....	24,152	6
.....	14100	10100	.....	2000	.....	.....	.....	6500	.....	.....	70	.....	3,395	7
.....	19100	39800	.....	.....	300	.....	.....	.....	.....	.....	7	.....	5,984	8
.....	8500	18200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,670	9
500	5100	17200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,255	10
196500	420700	1743150	19250	2300	300	6190	.....	9000	.....	.....	1138	158	.....	.....
9825	42070	174315	1925	92	24	366	.....	270	.....	.....	11380	1580	241,847	.....

7-8 EDWARD VII., A. 1908

ONT

RETURN of the Number, Tonnage and Value of Tugs, Vessels and Boats, and the Province of Ontario.

Number.	DISTRICTS.	FISHING MATERIAL.										
		Tugs or vessels.				Boats.			Gill-nets.		Pound-nets	
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Yards.	Value.	Number.	Value.
	<i>Lake Huron (North Channel).</i>			\$		\$			\$		\$	
1	Thessalon.					3	450	6			10	2200
2	St. Joseph Island					8	750	11	35000	1400	2	400
3	Bruce Mines.					3	400	6	12000	400	5	1000
4	Mississauga.	1	35	3500	6						6	1200
5	Blind River	1	15	2000	6	1	450	2			10	2000
6	Fraser's Bay	1	20	3500		2	200	4			5	1000
7	Haywood Island.	1	4	700	6						5	1000
8	Manitowaning Bay.					3	300	6	18000	900	5	1000
9	Kagawong	1	12	1500	5				24000	2000		
10	Badgely, Darche and Innis Islands.	1	16	2000	6	2	100	2			12	2400
11	Meldrum Bay.	2	50	8000	6				48000	6000		
12	Club Island.	2	27	2300	12	1	100	2	53000	4300		
13	Cockburn Island.	1	23	600	6	4	1300	8	42000	3500	2	400
14	West Bay					1	50	3	6000	300		
15	Cutler.					5	500	3	30000	1400		
16	Fitzwilliam Island.					8	1300	17	48000	2500		
17	Squaw Island.	4	111	11500	24	3	300	4	108000	8600		
18	Ducks Islands.	2	30	3000	12	5	650				5	750
19	South Bay Mouth.	2	30	3700	13	6	800	13	78000	5500		
20	Killarney.					13	1500	26	98500	11300		
21	Bustard Island.	2	40	6000	12	12	1700	24	112000	7500		
22	John and Aird Island.	1	10	2000	5	3	300	4	12000	600	10	2000
23	Providence Bay	1	15	1500	6	1	100	2	30000	2300		
24	Cape Robert.					1	200	2			4	800
25	Bedford Island					1	100	2			5	1000
26	South Side Manitoulin Island.	1	13	1500	5				24000	2000		
27	Pt. Aux Grondine and Byng Inlet					5	1200	7			6	1800
	Totals.	24	451		130	91		154	778500		92	
	Values.	\$		43300			12750			60500		18950
	<i>Georgian Bay.</i>											
1	Parry Sound.	6	94	22500	38	15	2210	27	225300	21800	1	150
2	Waubashene.					17	2690	31	77000	3835		
3	Penetanguishene.					11	550	22	55500	2835		
4	Collingwood.	1	25	3506	6	21	2030	42	156000	6100		
5	Meaford.	6	146	17000	17	21	1320	45	177000	12915		
6	Colpoy's Bay and Tobermory.	6	128	18300	31	32	1540	62	281300	28320		
	Totals	19	393		92	117		229	972100		1	
	Values.	\$		61300			10340			75805		150
	<i>Lake Huron (proper).</i>											
1	Cape Hurd to Southampton.	6	165	24500	31	41	3450	73	381600	25073	2	300
2	Southampton to Goderich	8	200	6000	18	7	1400		53200	3200		
3	County Huron, including Grand Bend.	2	64	4000	11	10	2180	23	96100	7600	8	1200
4	County Lambton, including St. Clair River	1	25	1500	6	66	7800	109	63000	2150	54	14900
	Totals.	17	454		66	114		205	593900		74	
	Values.	\$		36000			14830			38023		16400

SESSIONAL PAPER No. 22

ARIO.

Quantity and Value of all Fishing Materials and the Kinds of Fish caught in the for the Year 1906.

KINDS OF FISH.													Value.	Number.
Herring, salted, brls.	Herring, fresh, lb.	Whitefish, lb.	Trout, lb.	Pickarel or Dore, lb.	Pike, lb.	Sturgeon, lb.	Perch, lb.	Catfish, lb.	Mixed and coarse fish, lb.	Caviare, lb.	Sturgeon bladders, No.	Trout, salted, brls.	Whitefish, salted, brls.	
													8 cts.	
		32000	18000	13100	1500	700			42000					7,686 00 1
10		14600	20500	3500	3000	100			7500					4,313 00 2
		14500	7000	30100	1000	4000	200		1000	150		35		6,011 00 3
100			140000											15,000 00 4
50		42000	14000	40000										10,100 00 5
		13800	7500	15400	2500	800		50	50					3,839 50 6
		4800	5000	28200	6700	850				75				4,188 50 7
		17800	19600	15400	2500	750		50	50					5,445 50 8
		11400	89700	1500										10,260 00 9
		100400	13100	10000		2200			1600					12,574 00 10
		44000	306000									39		35,390 00 11
		20000	76000											9,600 00 12
	1000	44700	218300									14		26,490 00 13
18														180 00 14
85														850 00 15
67		15100	98000	15200	4300	700			1400	100			6	13,900 00 16
		152800	266200											41,900 00 17
			237000											23,700 00 18
20		62000	242800											30,830 00 19
		46800	55000	30100	7300								15	13,482 00 20
	14000	190000	92000	78500	1400	800		400				10	10	37,102 00 21
30	1000	4000		142400	500	2200		5600				10	10	15,834 00 22
			21000											2,100 00 23
	10000	6000	2000	8000										2,100 00 24
		5800	4000	22400	3500	5400								3,792 00 25
			42000											4,200 00 26
	10600	37000	2500	25500	12100	3600			10000	400				8,382 00 27
380	36600	879500	1997200	479300	46300	22100	200	6100	63600	725		108	41	.....
3800	1830	87950	199720	47930	1852	1768	6	488	1908	50750		1080	410	349,249 50
		248500	384800	17400	10100									65,474 00 1
		11400	18900	26200	29500	1800		800	11200	50		13	25	7,789 00 2
9	3000	14700	33800		500							10		5,210 00 3
22	25300	79250	135810	50		15250	800	2600	1400					24,490 00 4
	2800	18000	410400									104		44,020 00 5
45	4300	8100	554700									151	6	58,515 00 6
76	35400	379950	1538410	43650	40100	17050	800	3400	12600	50		278	31	.....
760	1770	37995	153841	4365	1604	1764	24	272	378	35		2780	310	205,498 00
759	78400	7000	649100		500	2400	57000		200	300		835	10	87,708 00 1
1		3100	88200											9,140 00 2
	21500	11100	148500	6800		900	65400		9400	1500		12		21,201 00 3
	151000	22100	81900	419000	3800	12000	36400	700	92000	1950	250			66,435 00 4
760	250900	43300	967700	425800	4300	15300	158800	700	101600	3750	250	847	10	.....
7600	12545	4330	96770	42580	170	1224	4764	56	3048	2625	200	8470	100	184,481 00

7-8 EDWARD VII., A. 1908

RETURN of the Number of Fishermen, Tonnage and Value of Tugs, Boats, Nets, &c.,
Year

Number.	DISTRICTS.	FISHING MATERIAL.														
		Tugs or Vessels.				Boats.			Gill-nets.			Seines.			Pound-nets	
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Yards.	Value.	Number.	Yards.	Value.	Number.	Value.
	<i>Lake St. Clair.</i>			\$			\$			\$			\$		\$	
1	River Thames.....					20	430	...	*73	24	72	21	1500	800	...	...
2	Lake St. Clair and De- troit River.....	8	16	2000	13	123	3500	276	...	...	...	64	7900	2945	8	2100
	Totals.....	8	16	2000	13	143	3930	276	73	24	72	85	9400	3745	8	2100
	Values.....	\$														
	<i>Lake Erie.</i>															
1	Peelee Island....	4	97	17500	29	6	700	11	...	25000	9400	...	...	...	11	3975
2	Essex County.....	1	102	8000	7	41	6050	63	...	11500	2273	3	900	225	54	15500
3	Kent County.....	2	230	15000	24	68	14800	115	...	8000	800	...	...	...	105	37000
4	Elgin, West.....	1	33	6000	7	26	6150	43	...	14000	1600	...	...	...	49	16060
5	Elgin, East.....	12	98	22850	72	19	3250	47	...	124000	8500	...	...	...	4	1200
6	Houghton.....	3	82	9400	16	3	125	7	...	26000	1650	...	...	...	2	600
7	Walsingham.....	1	30	2000	6	24	990	55	...	11000	1050	13	5000	1600	...	...
8	Long Point.....					17	650	42	...	5000	400	5	1800	450	...	...
9	Charlotteville					22	1100	53	...	30000	900	6	2400	600	...	...
10	Inner Bay					14	460	31	...	3500	175	4	1200	250	...	...
11	Woodhouse.....	3	80	8000	18				...	32000	2500					
12	Haldimand County.....	7	80	16200	31	41	3182	72	...	78200	8300	5	1800	170	25	5500
13	Port Maitland to Port Colborne.....	3	27	6200	18	14	660	23	...	32100	4500	...	...	...	12	3000
14	Port Colborne to Niagara Falls					18	350	27	...	63300	350	...	...	...
	Totals	37	859	111150	228	313	38407	589	...	463600	42398	36	13100	3295	262	82775
	Values.....	\$														

* Dip nets.

SESSIONAL PAPER No. 22

and the Quantities and Kinds of Fish caught in the **Province of Ontario**, for the 1906.

KINDS OF FISH.													Value.	Number.
Herring, salted, brls.	Herring, fresh, lb.	Whitefish, lb.	Trout, lb.	Pickeral or Doré, lb.	Pike, lb.	Sturgeon, lb.	Eels, lb.	Perch, lb.	Tullibee, lb.	Catfish, lb.	Mixed and coarse fish, lb.	Caviare, lb.		
				24500	6200	50		2500		4800	153000		\$ cts.	
													7,751 00	1
	2000	46200		100400	53000	38300		54400	4200	36400	512400	1225	40,969 50	2
	2000	46200		124900	59200	38350		56900	4200	41200	665400	1225		
	100	4620		12490	2368	3068		1707	252	3296	19962	857	48,720 50	
	112400	9000		15700	40100	3400		13900		5800	15500	250	11,487 00	1
	133700	63300		99800	214400	8500		66300		5400	243000	70	42,011 00	2
	566300	7800		67600	1044800	12400	700	46800	10900	2600	224800	500	88,041 00	3
	253800	31200		430200	1400	3900		27900		2700	27800	150	61,190 00	4
3	826700	13160		87500		900		21500		1300	22100	50	52,944 00	5
	302800	6700		25200	7900			2600		200	900		18,767 00	6
	93900	1000		12400	14500	800		32300	2700	1400	94500		10,757 00	7
				11500	5800	1500		5700	7200	500	97600	250	5,248 00	8
	600	500	100	33400	9500			30500		3500	58100		6,748 00	9
	500			12000	5500			9000		10000	60500		4,330 00	10
	269300	39100		212700				21200					39,281 00	11
	143700	151600	2300	398600	2800	12000		36000		200	62200	250	466,841 00	12
	119500	35800		133300	20800	11000		15500		200	20600	700	26,186 00	13
				17100	19400	11200		4800			5200	550	4,067 00	14
3	2823200	359100	2400	1557000	1386900	65600	700	334000	20800	33800	932800	2770		
30	141160	35910	240	155700	55476	5248	42	10020	1248	2704	27984	1939	437,901 00	

+ In No. 12 add 8 brls. whitefish, \$80, and 150 sturgeon bladders, \$120.

SESSIONAL PAPER No. 22

Quantity and Value of all Fish, Nets, &c., in the Province of Ontario—Continued.

KINDS OF FISH.													Value.	Number.
Herring, salted, brls.	Herring, fresh, lb.	Whitefish, lb.	Trout, lb.	Pickered or Doré, lb.	Pike, lb.	Sturgeon, lb.	Eels, lb.	Perch, lb.	Tullibee, lb.	Carfish, lb.	Mixed or coarse fish, lb.	Trout, salted, brls.	Whitefish, salted, brls.	
													\$	
..	309100	47400	7000	12700	12700	..	1000	11200	..	200	5400	..	..	23,247 1
..	148000	18500	17100	..	21000	..	12000	2000	..	..	3700	..	..	12,043 2
..	280000	..	4000	..	..	..	..	..	..	..	5000	..	..	14,550 3
..	25000	4000	20600	..	1200	..	400	500	..	200	300	..	..	3,822 4
..	44600	12800	6300	..	1000	..	..	..	..	..	1100	..	..	4,213 5
..	20500	3500	4800	..	100	..	..	..	..	..	1200	..	..	1,895 6
..	32900	9900	31200	..	36300	..	..	..	..	..	48300	..	..	12,179 7
23	16900	40900	14300	2100	16500	1000	4100	11000	2000	13700	36300	..	..	10,426 8
42	38300	99300	..	20100	132500	..	7000	113300	..	198500	83500	..	13	41,909 9
5	8900	107300	..	15900	13200	4800	..	15500	..	500	..	4	..	14,472 10
8	..	10400	2000	3300	16900	7300	4700	16800	..	26600	33700	..	..	6,695 11
78	924200	354000	107300	54190	251400	13100	18400	194200	2000	275000	220500	4	13	..
780	46210	35400	10730	5410	10056	1048	1104	5826	120	22000	6615	40	130	145,469
19	8500	..	..	..	26900	..	1000	300	..	38100	72700	..	..	6,989 1
..	700	..	..	1200	13600	..	..	6600	..	42000	46900	..	..	5,664 2
..	..	500	..	3200	4900	100	..	2900	..	7600	13100	..	..	1,662 3
..	2500	4000	..	3200	500	*103100	..	..	..	..	..	..	..	16,078 4
19	11700	4500	..	1600	45900	103200	1000	9800	..	87700	132700	..	..	..
190	585	450	..	760	1836	8256	60	294	..	7016	3981	..	..	30,393

RECAPITULATION of the Number of Fishermen, Tonnage and Value of
and also the Kinds and Quan-

Number.	DISTRICTS.	FISHING MATERIAL.								
		Tugs or Vessels.				Boats.			Gill-nets.	
		Number.	Tonnage.	Value.	Men.	Number.	Value.	Men.	Number.	Yards.
				\$			\$			\$
1	Lake of the Woods and Rainy River District.....	5	172	6700	14	37	6075	84	.....	64000
2	Lake Superior.....	19	299	44800	104	74	6210	85	.....	485000
3	Lake Huron (north channel).....	24	451	43300	130	91	12750	154	.....	778500
4	Georgian Bay.....	19	393	61300	92	117	10340	229	.....	972100
5	Lake Huron (proper).....	17	454	36000	66	114	14830	205	.....	593900
6	Lake St. Clair and Thames River..	8	16	2000	13	143	3930	276	*73	.....
7	Lake Erie.....	37	859	111150	228	313	38407	589	.....	463600
8	Lake Ontario.....	4	44	5050	10	299	19163	489	.....	517585
9	Inland waters of Frontenac, Leeds, Lanark, Addington, Russell, Prescott, Carleton and Renfrew Counties.....	.....	.....	.....	.....	186	2646	285	.....	5800
10	Nipissing District..	3	17	2900	14	20	2900	18	.....	2500
	Totals	136	2705	313200	671	1394	117251	2414	73	3882985

* Dip-nets

Number.	DISTRICTS.	Herring, salted, brls.	Herring, fresh, lb.	Whitefish, lb.	Trout, lb.	Pickarel or Dore, lb.	Pike, lb.
1	Lake of the Woods and Rainy River District.....	.....	.....	388200	100100	244600	113800
2	Lake Superior..	.....	196500	420700	1743150	19250	2300
3	Lake Huron (north channel).....	380	36600	879500	1997200	479300	46300
4	Georgian Bay.....	76	35400	379950	1538410	43650	40100
5	Lake Huron (proper).....	760	250900	43300	967700	425800	4300
6	Lake St. Clair and Thames River.....	.....	2000	46200	.....	124900	59200
7	Lake Erie.....	3	2823200	359100	2400	1557000	1386900
8	Lake Ontario	78	924200	354000	107300	54100	251400
9	Inland waters of Frontenac, Leeds, Lanark, Addington, Russell, Prescott, Carleton and Renfrew counties	19	9200	500	.....	4400	45400
10	Nipissing District.....	.....	2500	4000	.....	3200	500
	Totals	1316	4280500	2875450	6456260	2956200	1950200
	Values	\$ 13160	214025	287545	645626	295620	78008

SESSIONAL PAPER No. 22

FISHERIES.

Tugs, Vessels and Boats, the Quantity and Value of all Fishing Materials, and the Quantity and Value of Fish caught during the Year 1906.

FISHING MATERIAL.									OTHER FIXTURES USED IN FISHING.				
Seines.			Pound-nets.		Hoop-nets.		Night-lines.		Freezers and ice-houses.		Piers and wharfs.		Number.
Number.	Yards.	Value.	Number.	Value.	Number.	Value.	No. Hooks.	Value.	Number.	Value.	Number.	Value.	
		\$		\$		\$		\$		\$		\$	
			14	4000	12	1275			9	4350	3	1200	1
			35	9000					4	2190	1	200	2
			92	18950					7	2400	2	2250	
			1	150					17	5700	4	650	
15	846	580	74	16400			100		11	3725			
85	9400	3745	8	2100	136	6950	3600	190	15	1925	23	3700	6
36	13100	3295	262	82775	*48	96			133	52000	1	500	7
†97		97			182	3656	500	312	38	2530	1	40	8
10	100	320			88	1680	2400	205	5	785	1	30	9
			22	5450					9	4900			10
243	23446	8037	508	138825	466	12757	6600	707	248	80505	36	8570	

† Spears.

Sturgeon, lb.	Eels, lb.	Perch, lb.	Tullibee, lb.	Catfish, lb.	Mixed and coarse fish, lb.	Caviare, lb.	Sturgeon bladders, No.	Trout, salted, brls.	Whitefish, salted, brls.	Value.	Number.
										\$ cts	
54000			4900	82900		3050	100			91,303 00	1
300			6100		9000			1138	158	241,847 00	2
22100		200		6100	63600	725		108	41	349,249 50	3
17050		800		3400	12600	50		278	31	205,498 00	4
15300		158800		700	101600	3750	250	847	10	184,484 00	5
38356		56900	4200	41200	665400	1225				48,720 50	6
65600	700	334000	20800	33800	932800	2770	150		8	437,901 00	7
13100	18400	194200	2000	275000	220500			4	13	145,469 00	8
100	1000	9800		87700	132700					14,315 00	9
103100						9950				16,078 00	10
329000	20100	754700	38000	530800	2138200	21520	500	2375	261		
26320	1200	22611	2280	42464	64146	15064	400	23750	2610	1,734,865 00	

7-8 EDWARD VII., A. 1908

STATEMENT of the Yield and Value of the Fisheries of the Province
of Ontario for the Year 1906.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ cts.	\$
Whitefish..... brls.	261	10 00	2,610
"..... lbs.	2,875,450	0 10	287,545
Trout..... brls.	2,375	10 00	23,750
"..... lbs.	6,456,260	0 10	645,626
Herring..... brls.	1,316	10 00	13,160
"..... lbs.	4,280,500	0 05	214,025
Pickereel..... "	2,956,200	0 10	295,620
Pike..... "	1,950,200	0 04	78,008
Sturgeon..... "	329,000	0 08	26,320
Caviare..... "	21,520	0 70	15,064
Bladders..... "	500	0 80	400
Eels..... "	20,100	0 06	1,206
Perch..... "	754,700	0 03	22,641
Catfish..... "	530,800	0 08	42,464
Coarse fish..... "	2,138,200	0 03	64,146
Tullibee..... "	38,000	0 06	2,280
Total.....			1,734,865

SESSIONAL PAPER No. 22

RECAPITULATION.

Of the Fishing Tugs, Boats, Nets, &c., employed in the Province of Ontario.

Articles.	Value.
	\$
136 tugs (2,705 tons), 671 men.....	313,200
1,394 boats, 2,414 men.....	117,251
3,882,985 yards of gill-net.....	271,363
243 seines (23,446 yards).....	8,037
508 pound-nets.....	138,825
466 hoop-nets.....	12,757
121 dip-nets.....	168
660 hooks on set lines.....	767
248 freezers and ice-houses.....	80,505
97 spears.....	97
Total.....	942,910

COMPARATIVE Statement of the Yield of the Fisheries of the Province.

Kinds of Fish.	1905.	1906.	Increase.	Decrease.
Whitefish..... lbs...	2,817,420	2,875,450	58,030	
" (salted)..... "	78,400	52,200		36,200
Herring.....	4,331,800	4,280,500		51,300
" (salted)..... "	897,400	263,200		634,200
Trout.....	5,281,650	6,456,260	1,174,610	
" (salted)..... "	889,200	475,000		414,200
Pickarel.....	3,236,940	2,956,200		280,740
Pike.....	1,479,900	1,950,200	470,300	
Sturgeon.....	401,350	329,000		72,350
Caviare.....	17,100	21,520	4,420	
Eels.....	20,150	20,100		50
Perch.....	800,200	754,700		45,500
Catfish.....	370,450	530,800	160,350	
Coarse fish.....	1,939,600	2,138,200	198,600	
Tullibee.....	7,450	38,000	30,550	
Bladders.....	290	500	210	
Total.....	22,572,300	23,141,830	2,097,070	1,527,540
Total increase 1906.....			569,930	

APPENDIX No. 7.

MANITOBA.

REPORT ON THE FISHERIES OF MANITOBA FOR THE YEAR 1906, BY
INSPECTOR WM. S. YOUNG.

SELKIRK, Man., May 18, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa, Canada.

SIR,—I have the honour to submit herewith my annual report on the yield of the fisheries for the province of Manitoba and Keewatin for the year ending 31st December, 1906, including statistics showing the number of men employed, the number of boats, nets, &c., their value and the varieties and quantities of fish caught.

The subdivisions of my district are the same as made in my last report, with the addition of all the waters to the north of the province of Manitoba, lying in the westerly portion of Keewatin, which was under the supervision of Inspector E. W. Miller, of Qu'Appelle, who has heretofore for a number of years reported on it. The subdivisions of my district are as follows: Lake Winnipeg and its tributaries, comprising the principal waterways, as the Nelson river, Playgreen lake and the minor streams flowing into Hudson and James bay at the north; Winnipeg river and its expansions—forming from the east: Lakes Winnipegosis, Waterhen and Dauphin, comprise all the waters of Winnipegosis, which lie about the centre of the province and extends to the northern boundary. Lake Dauphin lies to the south of Lake Winnipegosis, Waterhen lake or river lies in between the waters of Winnipegosis and Lake Manitoba. Lakes Manitoba, St. Martin and Shoal comprise Lake Manitoba, which lies between lake Winnipeg and Winnipegosis. St. Martin lies between the waters of Lake Winnipeg and Manitoba and is connected to both these bodies of water by the Little Saskatchewan river on the one side and the Fairford river on the other, which are also included in this district. Lakes Cedar, Mosse, Atikmeg and Cormoran comprise a chain of lakes lying to the north of the westerly part of the province of Manitoba, including the waters of the Big Saskatchewan, lying within Keewatin, Lakes Rock, Pelican, Swan and Louise and a district formed of small lakes to the south and west of the province, the principal ones of which are Oak lake, Clearwater lake, near Riding Mountain; Whitewater and Lake Killarney near Deloraine; Fish lake on the boundary line which lies partly in Manitoba and Dakota. The total value of the yield of the fisheries in my whole district for the year 1906 is \$1,217,645 or 6,136,000 pounds of whitefish, 46,000 pounds of trout, 6,161,000 pounds of pickerel; 2,825,000 pounds of pike, 325,000 pounds of sturgeon, 89,000 pounds of perch, 1,706,000 pounds of tullibees, 557,000 pounds of goldeyes, 200,000 pounds of catfish, 4,840,000 pounds of mixed and coarse fish, 1,725,000 pounds of fish used for home consumption were caught during the year 1906. There was also manufactured 37,000 pounds of caviare, making in all a total value of \$1,217,645.

SESSIONAL PAPER No. 22

It will be noted that there is a decrease of \$285,970 compared with the year 1905. This is accounted for in the first place by an error in a report I received from the Imperial Fish Co., which report gave an over yield of 250 tons or 500,000 pounds. I do not know how this mistake happened. Upon investigation their books showed that an over yield was reported. The balance of the decrease is accounted for by two or three causes. In the first place Lake Winnipegosis was closed to summer fishing, no fish being caught during the summer of 1906 for the export trade. In the second place, all fishing closed down on the 31st of August in the waters of Lake Winnipeg, which took over a month off the summer season. The third cause was owing to the severity of the weather during the winter season. During the month of December when the ice on the lakes had reached a thickness of from four to eight inches, a storm came up and broke up the ice, carrying away large numbers of both fish and nets. In a very large number of cases, the nets were never recovered. This caused suspension of fishing operations until a new outfit of nets could be secured from Selkirk. This meant that very little fishing was carried on during the month of December. The whitefish were not caught after that to any great extent. During the winter season only a few licenses were issued for the whitefish grounds. The distance is so great to those grounds that the fishermen have given up the whitefish fishing during the winter season.

Considering the unfavourable weather and other causes the fishermen had to contend with during the past year, it was a fairly successful one. If the weather conditions had been favourable, we would have had the largest yield in the history of our fisheries to report. The department placing at my disposal ss. *Premier* for patrol service on Lake Winnipeg, the fishing regulations were well enforced. This was a move in the right direction by the department, because it is absolutely necessary that a patrol of the fishing grounds during the summer season should be made.

LAKE WINNIPEG AND ITS TRIBUTARIES.

An examination of the statistics herewith inclosed will show a decrease in the quantity of whitefish caught of 1,500,000 pounds, pike or jackfish of 250,000 pounds, sturgeon of 400,000 pounds; perch of 50,000 pounds, tullibees of 200,000 pounds, catfish of 300,000 pounds, mixed and coarse fish of 1,000,000 pounds, caviare of 14,000 pounds. Pickerel neither shows an increase nor decrease.

The total value of fish produced from this district is \$892,125, being a decrease of \$320,500 under the report of 1905.

LAKES WINNIPEGOSIS, WATERHEN AND DAUPHIN.

This district also shows decreases; whitefish of 500,000 pounds, pickerel of 450,000 pounds, pike or jackfish of 250,000 pounds, tullibees of 8,000 pounds, goldeyes of 1,000 pounds, mixed and coarse fish of 500,000 pounds.

The total value of fish produced from this district amounts to \$146,205, or a decrease in value of \$79,565 under the report of 1905. Considering that no fish were taken from the waters of this district during the summer season, only winter fishing being allowed, you will readily understand that the fisheries for this district have been fairly successful.

LAKES MANITOBA, SHOAL AND ST. MARTIN.

This district shows a decrease in the catch of whitefish of 200,000 pounds under the year 1905; pickerel of 400,000 pounds, pike of 509,000 pounds, perch of 5,000 pounds, tullibees of 160,000 pounds. Goldeyes show an increase of 247,000 pounds.

The total value of fish produced from this district amounts in all to the sum of \$111,740, or a decrease in value under the year 1905 of \$51,130.

The decrease in this district is accounted for by the following reasons: A less vigorous prosecution of the fishing; the severity of the weather during the winter; and there was practically no fish at all taken from the waters of Shoal lake, which has yielded abundantly in the past; especially jackfish or pike.

LAKES CEDAR, MOOSE, ATIKAMEG AND CORMORANT.

This district yielded during the year 1906: whitefish 350,000 pounds, trout 46,000 pounds, pickerel 86,000 pounds, pike 40,000 pounds, sturgeon 125,000 pounds, mixed and coarse fish 75,000 pounds. Home consumption, 50,000 pounds and caviare manufactured to the amount of 15,000 lbs. The fisheries during the year have been very profitable to those engaged in the industry.

The total value of the fisheries of this district is \$63,380.

The fish caught in the Rock lake and Oak lake districts are all used in the locality in which they are caught; so do not form any part of our export trade. The fish in both these districts are reported very plentiful, not showing any sign of diminution.

Summing up and for the purpose of comparison, we have the following:

Year.	Lbs.	Value.
1905	30,130,000	\$ 1,503,615
1906	24,647,000	1,217,645
Decrease	5,483,000	\$ 285,970

In conclusion, I would say, that the weather was anything but satisfactory for a successful season's prosecution of the fisheries; both during the summer and winter seasons. The latter part of the summer season was very stormy. Large number of fish were unfit for market, when taken from the nets, after being out in the nets so long. In some cases the nets were not raised for from five to seven days, when they were brought ashore. There was not only the loss of fish, but the nets were so badly used up that most of them were rendered useless by being in the water so long with dead and decaying fish in them.

The winter season was the coldest experienced in twenty years. The snow was also very deep on the lakes; which also interfered with operations. The fishermen's life during any winter season is a very hazardous one: but with the extreme cold and depth of snow, it was extremely so, during the past winter.

Under the circumstances, with the difficulties the fishermen had to contend with, I consider that although the yield is under that of previous years, it should be considered very satisfactory.

Fish produced during the winter season is valued at \$430,875. The total number of pounds of fish produced during this period was 8,648,000 pounds. As in my report for the twelve months ending December 31, the fishermen had a very hard time of it. The weather was of the severest kind and very deep snow covered the whole of the lakes of my district.

SESSIONAL PAPER No. 22

In conclusion I would say, that great care has been taken in the preparation of the statistics for both the twelve months ending December 31, 1906, and the table of statistics for the three months ending March 31, 1907 ; all of which I beg to submit.

I have the honour to be, sir,

Your obedient servant,

W. S. YOUNG,

Inspector of Fisheries.

RETURN of the Number of Fishermen, Tonnage and Value of Tugs, Vessels' and Boats, &c., in the Fishing Industry in the Province of Manitoba and Keewatin for the Year 1906.

Number.	Districts.	FISHING MATERIAL.												OTHER FIXTURES USED.							
		Tugs or Vessels.			Boats.			Gill-nets.			Seines.			Pound-nets.			Men employed, freezers and docks.	Freezers and Ice houses		Piers and Wharfs.	
		Number.	Tonnage.	Value.	Men.	Value.	Men.	Number.	Fathoms.	Value.	Number.	Fathoms.	Value.	Number.	Value.	Number.		Value.			
1	Lake Winnipeg and its tributaries.	28	2185	155500	200	500	26330	600	8000	480000	80000	9	297	300		300	176219000	40	15000	1	
2	Lakes Winnipegosis, Waterhen and Dauphin.	3	75	5000	10	70	840	334	3340	167000	33400					25	5	9000	2	1000	2
3	Lakes Manitoba, Shoal and St. Martin.					45	1500	272	2720	136000	27200					30					3
4	Lakes Rock, Pelican, Swan and Louise.					6	90	6	10	600	100										4
5	Lakes Oak and Clear Water.					4	60	4	6	360	60										5
6	Lakes Cedar, Moose, Atikmeg and Cormorant	3	41	6000	10	8	2000	24	2800	14000	28000					30	3	2000	3	700	6
	Totals	34	2350	166500	220	633	25020	1240	16876	737900	168760	9	297	300		4560	184	230000	45	16700	

SESSIONAL PAPER No. 22

RETURN showing the Kinds, Quantities and Value of Fish in the Province of Manitoba and Keewatin for the Year 1906,

Number.	Districts.	KINDS OF FISH.												Value.	Number.
		Whitefish, lbs.	Trout, lbs.	Pickarel, lbs.	Pike, lbs.	Sturgeon, lbs.	Perch, lbs.	Tullibee, lbs.	Gold eyes, lbs.	Catfish, lbs.	Mixed and coarse, fish, lbs.	Home consumption, lbs.	Caviare, lbs.		
1	Lake Winnipeg and its tributaries.....	5000000	.....	4500000	1000000	200000	75000	1600000	300000	200000	4000000	1000000	22000	892,125 00	1
2	Lakes Winnipegosis, Waterhen and Dauphin.....	600000	.....	950000	750000	.....	.....	6000	7000	.....	500000	350000	.....	146,205 00	2
3	Lakes Manitoba, Shoal and St. Martin.....	200000	.....	600000	1000000	.....	14000	100000	250000	.....	250000	300000	.....	111,740 00	3
4	Lakes Rock, Pelican, Swan and Louise.....	.....	.....	15000	20000	.....	.....	.....	.....	.....	10000	15000	.....	2,250 00	4
5	Lakes Oak and Clear Water.....	6000	.....	10000	15000	.....	.....	.....	.....	.....	5000	10000	.....	1,945 00	5
6	Lakes Cedar, Moose, Atkinney and Cormorant.....	330000	45000	80000	40000	125000	.....	.....	.....	.....	75000	50000	15000	63,380 00	6
	Totals	6130000	40000	6161000	2825000	325000	89000	1706000	557000	200000	480000	1725000	37000		
	Total values ..	429520	3220	369660	98875	32500	3115	59710	19495	16000	96800	51750	37000	1,217,645 00	

APPENDIX No. 8.

SASKATCHEWAN.

REPORT ON THE FISHERIES OF SASKATCHEWAN BY INSPECTOR
E. W. MILLER, FOR YEAR 1906.

QU'APPELLE, SASK., March 1, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit the following report on the Fisheries of the Province of Saskatchewan for the year 1906, together with statistical returns showing yield of fish, values of catch, plant, &c.

The year was on the whole a favourable one for the prosecution of the fishing industry, and a marked increase is to be noted in the amount of fishing done in the lakes north of the Saskatchewan River, both in the Grand Rapids and Prince Albert districts. In the southern portion of my district a mild winter with light snow fall gave rise to fears that the smaller lakes and rivers would fall very low but fortunately heavy spring rains maintained them in full volume until late in the summer. The relatively small and scattered lakes in the south part of the province are fished mostly by settlers for their own use, the number of men fishing regularly for sale in neighbouring towns and villages being very limited, but the capacity of the lakes will not admit of any large increase in the amount of net fishing being sanctioned. In some of the smaller lakes it has already been found expedient to confine the fishing to that done by hook and line so that as large a number as possible may share in the pleasure and profit to be thereby obtained.

With the vastly increased population in the southern part of the province, a much greater quantity of fish could be marketed than is forthcoming from the local sources of supply, which are indeed quite inadequate to meet the demand. In the north, the opposite state of affairs prevail: the possible output from the waters there is so much in excess of that required for local consumption as to readily admit of a large export. The problem of getting the surplus fish from the northern waters into the markets of our southern towns at a reasonable price is still to be solved.

Practically the whole catch from the lakes north of the Saskatchewan, except that portion used by the residents in their vicinity, is exported to the United States in spite of the import duty levied by that country and the cost of so long a haul. It would seem that the people of the United States are prepared to pay a much higher price for our prime fish than the residents of these western provinces will give, or that the freight charges on small consignments to provincial centres are not so much less than the cost of shipping in car lots to much more distant United States points as to compensate for the inconvenience of dealing with many firms instead of with one large buyer.

Probably a combination of these reasons is answerable for the existing conditions, but in any case it must be remembered that an immensely greater catch of fish is now being annually made in our western waters than could possibly be disposed of in the home markets at the present time. Nor would the prohibition of the export of fish ensure a better and cheaper supply to the provincial towns, for unless fishing operations at the northern lakes are carried on in the large way which is now made practicable by the foreign demand, the expense of opening and maintaining the necessary depots and lines of communication for getting the fish to the railway shipping points would become relatively too great to admit of the fishery being pursued with fairly remunerative results to the fishermen and operators.

SESSIONAL PAPER No. 22

However while the amount of fishing allowed is carefully proportioned to the capacity of the lakes to remain properly stocked with fish, no real injury is being done and a large amount of fairly remunerative employment is afforded in the duller season of the year, and in places where the more ordinary occupations are not readily accessible.

In the main the close seasons are now well observed and but few prosecutions have been necessitated during the past year. Evasions of the spirit of the regulations have however proved more difficult to deal with, particularly in those waters which formerly fished by the Indian and Halfbreed alone, are now worked on quite an extensive scale for the export trade, before referred to. The conditions affecting the fisheries in this district during recent years have changed so much, that the announcement of a proposed early and thorough revision of the regulations has been most favourably received, and such has certainly become very necessary.

QU'APPELLE DISTRICT.

In the Qu'Appelle lakes the supply of pike, pickerel, perch and mullet continues very abundant: Tullibee owing to the disease reported last year, have become scarce. Whitefish are not at all plentiful but the yearly catch seems now to be steadily though slowly augmenting. The lakes in the Qu'Appelle valley are all rich in fish food, and individuals of all species attain a large size; among those caught during the year were several pike of over 30 lbs. weight, pickerel and whitefish of six and eight pounds. Perch are very plentiful but few are caught; the mesh of the authorized nets being too large, and most of the anglers using too large a bait for perch. A new dam was completed at the outlet of Katepwe lake by the Saskatchewan government provided with fishway: the waters of the lakes above had fallen over three feet below their average level at the end of the summer, so the dam should have a good effect next season.

An increased amount of fishing is reported from Fishing lake and the other small lakes in the vicinity of the Edmonton line of the Canadian Northern Railway and though only the coarse fish are to be found there, they are much appreciated by the settlers. At Devil's lake, high water and increased supply of fish are reported—this also is a coarse fish lake only and the catch is mainly by hook and line. The local guardian here has to exercise much vigilance to prevent the construction of traps in the streams, the foreign settlers in this district being very persistent in their attempts to catch fish that way irrespective of size or condition. At Long lake the local overseer reports that the fishing has been specially good throughout the year. A much greater number of licenses for this lake was issued than in any previous year, but a great majority of them were to actual settlers in the vicinity of the lake who caught only the limited quantity necessary for their own use and there is no reason at present to consider the lake over fished. The dam built on the Qu'Appelle river at Craven has diverted a considerable flow of water into Long lake this summer and with it in operation the lake should not again become so shallow as to threaten the loss of a large proportion of its fish supply.

PRINCE ALBERT DISTRICT.

Further attempts were made during the year to revive the fishery for export purposes in this district, and though applications for commercial licenses were not entertained, a large amount of fishing was done at the Trout lakes under domestic licenses and the operators had a successful season. Though the fishermen held individual licenses according to the regulations, they were practically fishing for parties who outfitted them and bought their fish and it was really a commercial fishery. The supply of fish at the various large lakes in this district which even now are within a reasonable hauling distance of a railway shipping point at least during the winter season, is so largely in excess of the very limited local requirements that the establishment of an export trade on a much larger scale is certainly only a question of time. The existing regulations do not properly provide for it however, and there is consequently a certain amount of irregularity prevailing with which it is difficult to cope. The lakes are not fished in the summer owing to the difficulties in the way of transporting the catch, and

7-8 EDWARD VII., A. 1908

with the limited winter season there is little danger of the fish supply being depleted so long as the extent of net to be used is properly regulated. The possibilities of the business had been sufficiently shown in the early part of the year, to lead to a large number of applications being lodged for commercial privileges during this winter season, but none were granted and the fishing was again conducted on the domestic license system, though much more extensively. In the more outlying lakes, fishing is done solely for the food supply of the Indians and other residents in their vicinity; and the catch depends materially on the success of the hunt. Licenses have to be secured by those selling fish and the close seasons are enforced as far as possible. Abundance of fish is reported in these waters and there is no doubt that they can furnish a large surplus for export as soon as they become more accessible.

BATTLEFORD DISTRICT.

Here again increased settlement has led to more enterprise being shown in the fishing industry. Twice as many licenses were taken out for Jackfish lake as heretofore. Turtle lake and Cold lake were also fished more largely. These lakes are well stocked with fish and capable of standing still larger calls on their resources. Commercial licenses are also being sought here and Turtle lake is being fished on a like basis to that of the Trout lakes before referred to.

GRAND RAPIDS DISTRICT.

The winter fishing at Moose lake was actively pursued for the first two months of the year principally by men employed under the concession granted to Messrs. Merritt and Coffey, though a large quantity was also caught and sold by the Indians and other qualified residents who had obtained licenses. The catch was larger in the aggregate than in the previous year though the catch per net was not so good. Fifty teams were employed in freighting in the catch from Moose lake to the shipping point, Mafeking, in the Canadian Northern Railway, 320 miles from Winnipeg. The haul by trail was from 110 to 130 miles and cost from \$1.60 to \$1.75 per 100 lbs., making the price paid to the fishermen on the ice about three cents a lb. for whitefish. Practically no summer fishing was done at this lake owing to difficulties of transport, and this winter the fishing is being more actively pressed in Cormorant and Atikameg lakes to the west, for the fish from which convenient lines of transport via The Pas have been made available by the construction of the branch of the Canadian Northern Railway to that point on the Saskatchewan river. At Cedar lake operations have not been so active in the winter season, but a large catch was made in the summer principally by means of the pound-nets. The use of the latter had certainly much diminished the success of the gill-net fishery and men who started with gill-nets in many cases removed from the lake not finding the catch good enough to pay them. The pound-nets can be worked by a force of eight or ten men and while no bar has been placed in the way of Indians and other residents desiring to fish on their own account for the market, the use of pounds undoubtedly tends to diminish the opportunities of profitable employment in the fishery enjoyed when only gill-nets were allowed.

In Cumberland and Namew lakes, the fishery for local consumption proceeded under normal conditions, a slightly smaller catch being made owing to the successful hunting season. No pound-nets were used for the sturgeon fishery, they not having proved at all successful in the former season at these lakes and the services of so small a number of resident gill-net fishermen were procurable, that an insufficient quantity of fish was forthcoming to justify the expense of the buyers. Consequently after a month's trial, the tug service on the Saskatchewan between Cumberland and Cedar lake necessary for the transport of the fish was withdrawn and no further fishing for export was carried on. Some amount of difficulty and friction is being experienced in reconciling conflicting interests in these northern districts. The operations of companies

SESSIONAL PAPER No. 22

worked by outside capital, who wish to employ expert fishermen from outside points not unnaturally seem to the old residents there to militate against their interests, yet if the fishing is wholly confined to that done by genuine residents in the vicinity of the lakes, the output is not sufficiently large nor regular to secure the investment of capital in establishing the necessary lines of communication, securing markets, &c., without which the value of the surplus fish at the lakes is really nil. While therefore fair or even preferential treatment should be accorded to local interests, too strict a limitation of the fishing privileges in these northern lakes is scarcely reasonable nor in the best interests of the country at large. There is of course a tendency among those who fish for the outside markets to endeavour to concentrate their efforts on those lakes which are more readily accessible, and this if not checked would lead to overfishing at some points. With proper diffusion of the fishing and the maintenance of close seasons, while a repetition of the phenomenal catches of first seasons in virgin waters cannot be looked for, there is no reason to fear for the continued productive power of our waters.

I am, sir,

Your obedient servant,

E. W. MILLER,
Inspector of Fisheries

S A S K A T C H E W A N.

Return of the Number of Fishermen, Tonnage and Value of Tugs, Vessels, Boats, Nets, &c., and the Quantity and Value of all Fish in District No. 1, Northwest Territories, Province of Saskatchewan, for the Year 1906.

Number.	DISTRICTS.	FISHING MATERIAL.										OTHER FIXTURES USED IN FISHING.				Whitefish, lb.	Trout, lb.	Pickarel, lb.	Pike, lb.	Sturgeon, lb.	Tullibee, lb.	Mixed and coarse fish, lb.	Value.	Number.
		Tugs or Vessels.		Boats.		Gill-nets.		Pound-nets.		Freezers and Ice House.		Piers and Wharfs.												
		Number.	Value.	Men.	Value.	Men.	Pathoms.	Value.	Number.	Value.	Number.	Value.	Number.	Value.										
1	Qu'Appelle.....	.....	.....	.....	80	1500	128	7500	1250	.....	.....	.....	.....	65000	4000	10000	230000	.....	15000	35000	19,750	1
2	Macleod.....	.....	.....	.....	40	800	6	450	75	.....	.....	.....	.....	1000	4000	480000	8000	.....	.....	3000	2,930	2
3	Battleford.....	.....	.....	.....	35	350	74	11065	1830	.....	.....	.....	.....	50000	10000	6250000	40000	1000	.....	40000	31,000	3
4	Prince Albert.....	.....	.....	.....	275	2750	98	13600	2260	.....	.....	.....	.....	6250000	50000	750000	180000	12000	.....	50000	55,600	4
5	Cumberland.....	.....	.....	.....	3	150	11	2000	350	.....	.....	.....	.....	75000	5000	950000	45000	60000	.....	50000	12,450	5
6	Grand Rapids.....	200	2400	56	25006	4140	12	3500	4	600	4	150	60000	160000	100000	100000	20000	150000	83,900	6	
Totals.....		2196000	155000	950000	603000	173000	40000	328000	
Values.....\$		131760	9300	25300	18030	17300	1600	3280	206,630	

SESSIONAL PAPER No. 22

APPENDIX No. 9

ALBERTA.

ANNUAL REPORT OF THE FISHERIES OF ALBERTA.

OFFICE OF THE INSPECTOR OF FISHERIES,

EDMONTON, June 1, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report and statistics of fisheries, Province of Alberta for the year closing December 31, 1906.

The yield of fish for the year was about the same as usual. The only lakes which are heavily fished for market, viz., Pigeon lake and White Whale lake, yielding good returns of fine whitefish; the quality of the fish from White Whale lake is improving every year. Summer fishing at these two lakes was carried on to a greater extent than usual, to supply the market at Edmonton, and some towns along the line of the Calgary and Edmonton railroad.

Winter set in very early, and before the ice thickened there was a very heavy snow fall, which caused the water to rise over the ice, rendered the lakes dangerous for travel, and prevented much fishing being done before Christmas.

The coarse fish of the district have been numerous, and have no doubt been a welcome change of diet to many settlers all over the district. As a great many fish are killed with hook and line, it is a very difficult matter to get at the exact quantity of coarse fish caught.

I had special estimates made by all guardians, of the amounts of fish caught, and the quantities given may at least be called reliable estimates. If it errs the error is in underestimating.

It is surprising the very few boats of any kind to be found on any of the lakes or rivers of the district. A settler living on the shore of a fine lake will hitch up a team and drive a good many miles along the shore to reach a point that he could get to by boat in a very short time, even in lakes where water fowl are numerous, and where a boat or canoe would greatly assist a hunter, no canoes or boats are to be found. On lakes where there is an Indian or half-breed settlement these remarks do not so much apply.

There was no commercial fishing at Lesser Slave lake during the year. The difficulties of transport and its cost render the business unprofitable.

There is a good demand for all the whitefish that can be had within a reasonable distance of a railroad and prices paid are good. Buyers complain that they cannot be sure of getting a sufficient quantity of fish from men fishing with domestic licenses. There are many lakes on the northern outskirts of Alberta that are full of fish, and that would be fished if commercial licenses were granted for them. It would perhaps assist in opening up the country and afford a chance to natives and others of earning some money if a limited number of commercial licenses were granted. Fishing would only be possible in winter, unless cold storage were established I would not recommend the granting of commercial licenses in lakes where settlers are coming in. There is no doubt that in many lakes in the unsettled portions of the country the fish are too numerous. Pigeon lake and White Whale lake are examples of what I mean. At one time the fish in these two lakes were so numerous that their quality was very poor, even a dog could not fatten on them, now there are no better fish anywhere, and with proper protection these lakes will remain good for all time.

7-8 EDWARD VII., A. 1908

The building of the Grand Trunk Pacific Railway will open up many new lakes in the northwestern part of this district. Already there are a number of settlers along the line of the road, some as far west as the Jasper valley, or the Yellow Head pass. When construction begins on the road in the mountains, the streams there which are full of trout will require protection.

The Canadian Northern Railway brings the lakes in the northeastern part of this district, closer to a market, and I would not be surprised to see a good many men applying for domestic licenses in these lakes and fishing for a living during the winter months of the year.

Lac la Biche.—This lake now contains as many fish as are good for it. Though the lake has been tried now by experienced men, accustomed to fish in lake Winnipeg and other northern waters, they have not been able to catch fish after the real cold weather sets in. If the fish could be located a profitable fishing industry would spring up. This lake in my opinion could stand one commercial license, without doing it any harm, especially if the fishing was limited to the winter months of the year.

Touchiwood lake.—This lake lies some twenty miles north of Lac la Biche. Some Lac la Biche half-breeds took out licenses for this lake, and under the direction of a lake Winnipeg man made a good fishery during the winter. An Edmonton man bought the fish, and shipped it to a Winnipeg firm. The whitefish in this lake will average about four pounds and are in fine condition. Pickerel are also fairly numerous in this lake. Within a radius of thirty miles of this lake there are many lakes where the conditions are exactly similar. Trout lake contains trout similar to that of Cold lake. None of these lakes are very large, and are only separated one from another by short portages of from one to six miles.

Buck lake.—Thirty miles south west of Lac la Biche, which was at one time pretty well fished out is now well stocked with large whitefish. Formerly there were quite a number of half-breeds who lived at this lake and made a fishery there in the fall for winter use, and so fished out the lake. This fall fishing during spawning season, was stopped and the lake is now full of fine fish, there are very few Indians who frequent this lake now.

Beaver lake.—The south end of this lake runs within three miles of Lac la Biche. Fish spawn in it about October 7, while in Lac La Biche they do not begin to spawn until the fifteenth. The lake which at one time was pretty well fished out is now well stocked with fish.

Whitefish lake.—This lake is picking up, not because it is protected, but because it is not as heavily fished as in former years, many of the Indians having moved on to the reserve at Saddle lake.

Little Whitefish Lake.—Lying north of Victoria or Pakan, is a good little lake not much fished. The present close season for whitefish gives it no protection as the fish in it do not spawn until after Christmas.

Little Devil's lake.—The whitefish in this lake do not increase as I expected they would, the lake is really just a widening of the Sturgeon river, which flows out of Lake St. Anne, and as it is now well stocked with fish there is nothing to prevent their passage to Devil's lake. The lake swarms with pike, I think they would have to be killed off before whitefish could make much headway in the lake. As this lake at one time was swarming with whitefish, it is a pity it could not be brought back to its former state, as it is so close to Edmonton.

White Whale Lake.—This lake is mis-called Wabamun on the maps. Wabamun is not an Indian word it means nothing, Wabamao is the Cree name of the lake and really means the Big Fish lake, as the Indians have a tradition of a very big fish of a white colour having been seen there. The white traders on this account gave it the name of White Whale lake. The lake is well stocked with fish. Next summer the Canadian Northern Railway will be running to the lake, and will permit of summer

SESSIONAL PAPER No. 22

fishing for export. Fishing on this lake is now confined to residents within a radius of two miles of the lake. Many of the settlers have no experience as fishermen, and were only learning the business last winter, and did not do much, especially in first part of season. Water overflowing the ice also was a great hindrance to the fishermen nearly all winter. The half breeds of Lake St. Anne were previous to this year allowed to fish in this lake, this is not now allowed.

Lake Ste. Anne.—This is another lake where the whitefish cannot be caught after cold weather sets in. The fishermen now that they cannot get leave to fish in White Whale lake will make greater effort to locate the fish, which are now very plentiful.

Shining Bank Lake.—This lake west of Lake Ste. Anne, well stocked with large whitefish, is now attracting settlers and fishermen. I tried to send an officer there during the winter but the state of the roads was such that it was impossible for one man and a team to pass through. This lake will hereafter require supervision.

McLeod Lake.—The same remarks apply to this lake as to the previous one. The largest whitefish in the country are killed in this lake, they will average seven or eight pounds. Worms are very bad in this lake, a net set at night will be eaten up entirely by morning. Tanning the nets gives some protection but does not always prove effectual.

Pigeon Lake.—A wonderful little lake, heavily fished for years, the fish are still plentiful and always fat. Fishing in this lake is now confined to residents within a radius of one and a half miles. If summer fishing were to be carried on to any extent, the residence limit will have to be cut down.

Buck Lake.—Settlers are coming in around this lake, and in another year it should have a resident guardian.

Battle River Lake.—A beautiful little lake not too heavily stocked with whitefish. No fishing for sale on any kind of license should be allowed in this lake, for in its present state it will not stand heavy fishing.

As has been previously stated coarse fish are plentiful all over the district. There are many lakes which contain no fish, and which are apparently fit to support fish. Except in Pigeon lake there is very little net fishing done south of the Saskatchewan river.

The fishery officers have broken up many fish traps and cleared away obstructions in many of the streams. In some cases prosecutions would have been made could evidence have been obtained. The work of a fishery officer amongst foreign settlers is difficult, as they speak many tongues, and are in many cases ignorant of the law. They all seem to think they have a right to do as they please on any stream flowing through their homestead, they make dams to hold water for their cattle, and these dams are regular fish traps where fish can be slaughtered with pitchforks, and in many cases thrown ashore by hand.

As I understand, the fishery regulations of the Dominion are now under course of revision, and consolidation, and as I have made a special report as to amendments I consider advisable in the interests of the fisheries of this district, I will not in this report make any suggestions, more than to say, that in a district covering a great extent of country like this one does, where local conditions vary so much, that it is a difficult matter to frame any regulations that will apply equally well to all parts of the district. Especially is this the case with regard to close seasons during spawning seasons. If the officer in charge of a district were given some discretionary power in this matter, the fish in some lakes would receive more protection than they do. I believe from my experience that the time of spawning is regulated to a great extent by the temperature of the water. When we have an early winter and the water gets cold early in the season I have noticed that fish spawn sooner than when the opposite conditions obtain.

The officers employed in this district have all rendered good service.

I am pleased to report that I have succeeded at last in getting the large sawmills at Edmonton to put in burners at their mills and there is now no sawdust deposit

7-8 EDWARD VII., A. 1908

in the Saskatchewan river at this point, so I can now call down the small mill owners all over the district with more effect than formerly.

It is often thrown up to me by settlers who have been warned by fishery officers not to deposit manure, &c., in small streams, that I allow the city of Edmonton to dump their sewage and all the filth of a large town into the Saskatchewan river without protest. The settlers along the river below Edmonton are not at all pleased with the present state of this matter, there is no doubt that many cases of typhoid fever which was very prevalent last winter, were caused by drinking the water of the Saskatchewan impregnated with sewage from the city of Edmonton.

I have the honour to remain, sir,

Your obedient servant,

HARRISON S. YOUNG,
Inspector of Fisheries, Alberta.

SESSIONAL PAPER No. 22

PROVINCE OF ALBERTA.

RETURNS of the Number of Fishermen, Tonnage and Value of Tugs, Boats, the Quantity and Value of all Fish in the Fishing Industry in the Province of Alberta, for the Year 1906.

Number.	Districts.	FISHING MATERIAL.						KINDS OF FISH.						Number.	
		Boats.		Gill-nets.		Hand lines.		Whitefish.	Pike.	Tullibee.	Mixed and Coarse Fish.	Value.			
		No.	Value	Men.	No.	Fathoms.	Value						No.		Value
1	Lac La Biche.....	70	700	90	270	8,100	810	.....	200,000	50,000	.....	Lbs.	.....	\$	17,200
2	Beaver Lake.....	20	200	23	69	2,070	205	.....	60,000	.....	30,000	.....	.....	100,000	1
3	Heart Lake.....	11	110	10	30	900	90	.....	20,000	.....	.....	.....	.....	25,000	2
4	Whitefish Lake.....	10	50	20	60	1,800	180	.....	25,000	.....	.....	.....	.....	10,000	3
5	Saddle and L. Whitefish Lakes	10	50	35	55	1,400	165	.....	7,900	.....	.....	.....	.....	60,000	4
6	Beaver, Dried Meat and Buffalo Lakes.....	56	590	700	86	2,580	260	450	.....	.....	.....	.....	.....	4,000	5
7	Pigeon Lake.....	35	350	147	740	22,200	220	.....	225,000	20,000	.....	.....	.....	141,000	6
8	Conjuring and Gull Lakes..	26	260	175	60	1,800	180	175	.....	.....	30,000	.....	.....	50,000	7
9	Little Devil's Lake.....	6	60	100	1	126	12	100	.....	.....	9,000	.....	.....	11,000	8
10	Ste. Anne Lake.....	30	300	50	100	3,000	300	.....	120,000	3,000	.....	.....	.....	4,000	9
11	White Whale Lake.....	20	200	80	150	4,500	450	.....	200,000	1,000	.....	.....	.....	2,000	10
12	Bad, Jackfish and Baptiste Lakes.....	6	30	60	36	1,080	110	100	.....	500	7,000	25,000	.....	1,000	11
13	Lac La Poudre.....	20	200	15	50	1,500	150	.....	30,000	5,000	.....	.....	.....	1,000	12
14	Buck, Big and Battle Lakes..	4	40	20	15	450	45	.....	30,000	.....	.....	.....	.....	85,000	13
15	Cooking, Hasting and Coal Lakes.....	16	160	25	55	1,410	135	.....	50,200	2,600	.....	.....	.....	4,000	14
16	Finchwood Lake.....	.....	.....	8	40	1,200	120	.....	.....	.....	5,000	.....	.....	.....	230
17	Saskatchewan River.....	.....	.....	100	30	900	90	.....	.....	.....	3,100	.....	.....	7,000	15
	Totals.....	340	3,300	1,658	1,850	55,010	5,522	825	968,100	82,100	136,100	55,000	.....	520,250	16
	Values.....	.....	.....	.....	.....	.....	.....	.....	48,405	4,105	4,083	1,650	.....	10,405	17
		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	68,648

7-8 EDWARD VII., A. 1908

RECAPITULATION

Of the Yield and Value of the Fisheries for the season 1906, in the Provinces of
Manitoba, Saskatchewan and Alberta.

Kinds of Fish.		Quantity.	Value.
			\$
Whitefish	Lbs.	9,300,100	609,685
Trout	"	201,000	12,520
Pickeral	"	6,749,100	399,065
Pike	"	3,564,100	121,048
Sturgeon	"	498,000	49,800
" caviare	"	37,000	37,000
Perch	"	89,000	3,115
Tullibee	"	1,801,000	62,960
Catfish	"	200,000	16,000
Gold eyes	"	557,000	19,435
Coarse and mixed fish	"	7,413,250	162,235
Total for 1906.			1,492,923
Total for 1905.			1,811,570
Decrease.			318,647

RECAPITULATION

Of the Capital invested in the Fisheries of the Provinces of **Manitoba,**
Saskatchewan and Alberta, for the Year 1906.

Articles.	Number.	Value.	Total.
		\$	\$
Fishing tugs, 2,401 tons	37	172,900	
" boats	1,753	37,620	
			210,520
Gill-nets	912,520	184,187	
Seines	297	300	
Pound-nets	27	8,860	
Hand lines	825	825	
			194,172
Freezers and ice-houses	190	230,900	
Fishing piers and wharfs	51	16,910	
			247,810
Total			652,502

SESSIONAL PAPER No. 22

APPENDIX No. 10.

BRITISH COLUMBIA.

REPORT ON THE FISHERIES OF BRITISH COLUMBIA FOR THE
SEASON OF 1906, BY THE INSPECTORS C. W. SWORD, J. T. WILLIAMS
AND E. G. TAYLOR.

DISTRICT No. 1.

NEW WESTMINSTER, B.C., March 1st, 1907.

Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to inclose statistics of the Fisheries of District No. 1, British Columbia, for the year ending 31st December, 1906.

The great falling off from the previous year is of course accounted for by the difference in the salmon pack.

Comparing this, 226,774 cases, with the pack four years ago (1902), 327,198 cases, it will be seen that there is a decrease of 100,000 cases. As regards the sockeye pack the decrease however is even more 178,787 cases (to which should be added 4,220 cases packed in Victoria) in 1906 against 295,670 cases in 1902.

The Puget Sound sockeye pack was this year 178,748 cases, practically the same as this district, against 372,301 cases in 1902.

There were fewer canneries operated this year than in 1901; 24 against 38, and the number of fishermen was reduced from 5,552 to 3,502.

The decrease it will be seen is more than accounted for by the decrease in the salmon taken, other items showing on the whole an increase.

Two Canadian companies have recently gone into the halibut fishing, but owing to the late date at which they began to operate, the quantity of fish taken by them did not materially affect the returns.

Your obedient servant,

C. B. SWORD,

Inspector of Fisheries.

DISTRICT No. 2.

VANCOUVER, B.C., February 20th, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa

SIR,—I have the honour to inclose my annual statistical report of the Fisheries of the Northern Coast of British Columbia, District No. 2, for the year ending December 31, 1906, including statement of salmon packs for the different canneries. These returns show a considerable increase in the aggregate, the total value of fish and fish products in 1906 being \$2,539,474, against \$2,011,199 in 1905.

This increase is principally due to the extended operations in the salmon canning industry, and also to the general prosperity of the district, owing to the rapid increase in population and railway development.

7-8 EDWARD VII., A. 1908

This industry is likely to further increase in the near future, and I anticipate the early development of all branches of the deep sea fisheries. The total pack of salmon for the district for the season of 1906 is as follows:—

	Cases.
Sockeye	263,522
Cohoe	31,275
Spring	22,277
Humpback.....	45,101
Total.....	362,175

Against in 1905:

	Cases.
Sockeye	228,232
Cohoe	12,342
Spring	19,864
Humpback	9,411
Total	269,849

Approximate detailed decrease and increase season 1906.

	Cases.
Skeena River increase	50,000
Rivers Inlet "	38,000
Northern Coast "	4,000
Naas River decrease.....	200

I am gratified at being able to report an increase of some 90,000 cases in the salmon pack of 1906, over that of 1905, which has occurred principally on the Skeena and Rivers Inlet, the increase in the catch of sockeye has been comparatively small, some 40,000 cases, the principal increase has been in the catch of 'fall fish,' these salmon are becoming more valuable and commercially saleable each year, owing to the gradual decrease of the sockeye salmon. I may state in this connection that the increase in the catch of salmon this season is attributable to the increase in the number of canneries in operation, and the consequent increase in the number of fishing boats and nets, and not to any increase in the amount of salmon.

SKEENA.

With reference to the Skeena river, I may inform you that the run of spring salmon was phenomenal, vast quantities being caught, some being mild cured and others being canned. It was admitted by all to have been one of the best runs of spring salmon ever recorded in the history of the Skeena. The new snag scow which we hope to have in operation this season, will be of invaluable assistance in clearing the river of the great quantity of snags and boulders that are a constant menace to fishermen, and cause an almost incredible amount of destruction to nets, the snag scow will supply a long felt want and will be received by the cannerymen and fishermen with great rejoicing. I consider the removal of these snags will materially assist in increasing the pack, as fishermen are constantly getting 'snagged' and thereby losing the whole day.

I regret to say that we have had considerable trouble with the Babine Indians over the erection of barricades, this culminated in the arrest and imprisonment of some of them, the ultimate result was a conference at Ottawa, with the Minister of Marine and Fisheries, at which a basis of arrangement was arrived at satisfactory to all parties. With this exception there was comparatively little trouble on the Upper Skeena.

SESSIONAL PAPER No. 22

COPPER RIVER.

I am pleased to report that work is in progress on the removal of the Copper river obstruction, the contract was let in October last, and work commenced immediately, and we anticipate that the obstruction will be entirely removed by the end of March next. This work will open up an immense area of spawning ground which the salmon have been unable to reach, as heretofore, owing to these obstructions in the shape of rock slides.

I consider the removal of obstructions of this character will materially assist us in our endeavour to replenish the sockeye fisheries of the Skeena.

RIVERS INLET.

With reference to Rivers Inlet I am pleased to report an immense run of sockeye, surpassing in quantity any run hitherto reported, all the seven canneries in operation 'filled up,' and the superintendent of the Rivers Inlet Hatchery reports that the spawning grounds of Oweekayno lake were densely populated with sockeye and coho.

I consider the success attending the salmon canning operations on this Inlet during the last three seasons is attributable to the favourable climatic conditions.

Fishery Overseer Nordschow reports that the Fishery Regulations were well observed during the season and that the spawning grounds were carefully guarded, the Indians obtaining their winter supply of food according to the Fisheries Act and Regulations.

Taken altogether the existing conditions on Rivers Inlet in connection with our sockeye salmon fisheries are extremely satisfactory.

NAAS RIVER.

Regarding the Naas river, I may inform you that the pack of salmon amounted to approximately the same as last season, with the same number of canneries in operation, the run of coho salmon was good, but the sockeye show a slight decrease.

My opinion is with reference to this river, that until we remove the obstruction that I reported on last season, at the mouth of Magiarden lake we shall see no perceptible increase in the sockeye run, we must open up this immense area of spawning ground before we can expect any increase in the quantity of salmon.

Also a snag scow is an absolute necessity for this river and will be of vast assistance in clearing the principal drifts of the large snags that accumulate there, and ruin so many of the nets. Representations have been continually made to me by cannerymen and fishermen for several years back, in this connection.

My suggestion relative to this matter, namely to transfer the small snag scow now in operation on the Skeena river to the Naas, is I believe contemplated by the department.

NORTH COAST FISHERIES.

The statistics show a slight increase in the catch of salmon on the North Coast fisheries, climatic conditions influence these fisheries somewhat, but the catch generally averages about the same; this coming season we should have again a slight increase, in view of the erection of an additional cannery at Kimsquit.

DOG SALMON OR QUALO.

The industry of salting dog salmon has considerably increased during the last two years, this is followed almost exclusively by the Japanese, who ship these fish to Japan, they are caught principally by the Indians with their gill-nets, though two of them have drag seines, and sell their catches of fish to the Japanese. The Japs have

7-8 EDWARD VII., A. 1908

erected several salteries for this purpose and succeed in making a very good percentage on the invested capital.

HALIBUT.

I may inform you that three quarters of the whole of the British Columbia catch of halibut is caught in District No. 2, but is taken to Vancouver and exported from that port, only a comparatively small quantity being exported direct from my district, therefore the statistical returns are forwarded to the department by Inspector Sword, in his report as it has been customary for the port from which the fish are shipped, to make the returns. I trust that this immensely valuable commercial product will receive the protection of the department, as foreign vessels are undoubtedly rapidly depleting our halibut banks.

I must again call the attention of the department to the deep sea fisheries in my district. The population is increasing with leaps and bounds, and I consider it of vital importance that the regulations under which these fisheries are prosecuted should receive the attention of the department. My district in a year or so will contain a large city, that will be the commercial centre and shipping point for our deep sea fisheries, industries will spring into existence and are already contemplated, and being organized, and it behooves us to anticipate and prepare for the protection of these valuable commercial assets. In my district lie the most valuable fisheries in British Columbia, embracing as it does the Queen Charlotte Islands, where all species of fish are in countless numbers, and I am anxious to have these fisheries protected, so that future generations, who will make these localities their homes, may participate in this valuable heritage.

I have the honour to be, sir,

Your obedient servant,

JOHN T. WILLIAMS,

Inspector of Fisheries.

DISTRICT No. 3.

NAANAIMO, B.C., March 28, 1907.

To the Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to inclose my statistical report of the fisheries for District No. 3, of British Columbia, for the year ending December 31 1906.

The value of the fisheries in my district has advanced very substantially during the past year, and with the exception of the run of sockeye salmon at the southern end of Vancouver Island the various branches of our fisheries are in a prosperous condition.

A greater number of operators were engaged in the fisheries and the amount of capital invested has been largely augmented.

There was a marked increase in the salmon pack in the northern part of this district. The late run of salmon into Clayoquot Sound enabled the cannery at that point to almost double the pack of last year. The cannery in Barclay Sound put up a much larger pack, and the cannery at Quathiaska about doubled its pack. Many of the trap-nets on the west coast did not prove a success. This in some cases was largely due to unsuitable locations. A greater number of spring salmon were taken in the traps than in any previous year, and the growing demand for this fine fish enhances the value of trap-net fishing.

A greater number of dog salmon salteries were operated this season, and the demand for this salmon continues to increase in the markets of Japan.

The herring fishery has more than doubled, and is now in a fair way to become one of the most important branches of our fisheries in British Columbia. Nanaimo Harbour, the headquarters for this industry, presents during the fishing season a very busy scene.

SESSIONAL PAPER No. 22

Nine firms operated on a large scale; while many engaged in the herring fishing in a less extensive way. The herring came in shoals in as great numbers as in previous years, and the fishermen reaped a rich harvest.

In view of the vast numbers taken in such a small area, and the shallowness of the water in the inner harbour, I would recommend that seining in this part of the harbour be prohibited.

The whaling station at Barclay Sound operated by the Pacific Whaling Co., had a very successful season. A number of valuable sperm whales were taken. The same Company is about completing another station at Kyoquot Sound. The whaling steamer *St. Lawrence* has been purchased by the company to operate in connection with the new station.

The Victoria Sealing Co., despatched fourteen vessels to the Behring Sea, and all returned safely. Their catches were small. The high prices paid for skins induced a larger number of Indians to engage in the sealing along the west coast of Vancouver Island than last year.

It is gratifying that steps have been taken to equip a boat for patrol service between Vancouver Island and the mainland. A boat of this kind is an absolute necessity, and the work in which she will be engaged is of vital importance to the proper control of the fisheries in that part of my district.

I have the honour to be, sir,

Your obedient servant,

EDWARD G. TAYLOR,

Inspector of Fisheries.

RECAPITULATION, DISTRICT No. 1, BRITISH COLUMBIA, 1906.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ cts.	\$
Salmon, canned.....(48 lb. cases)	226,774	6 00	1,360,644
" salted.....brls.	1,000	10 00	10,000
" dry salted.....lb.	7,990,000	0 05	399,500
" dried (Ind. cons'n)....."	700,000	0 05	35,000
" smoked....."	100,000	0 10	10,000
" fresh and frozen....."	3,454,000	0 10	345,400
Sturgeon....."	25,000	0 10	2,500
Halibut....."	9,950,000	0 05	497,500
Herring, fresh and salted....."	60,000	0 05	3,000
" smoked....."	8,000	0 10	800
Oulachons, fresh....."	30,000	0 05	1,500
" salted.....brls.	70	10 00	700
" smoked.....lb.	1,200	0 10	120
Smelts....."	200,000	0 05	10,000
Trout....."	160,000	0 10	16,000
Cod....."	340,000	0 05	17,000
Shad....."	10,000	0 05	500
Mixed....."	80,000	0 05	4,000
Fish oil.....brls.	300	9 00	2,700
Guano.....tons.	140	25 50	3,570
Estimate of oysters, clams, crabs and other fish not included in above.			10,000
Total value.....			2,730,434

SESSIONAL PAPER No. 22

CAPITAL INVESTED IN DISTRICT No. 1, BRITISH COLUMBIA
FISHERIES.

Description of Property.	Number.	Value.	Total.
		\$	\$
Canneries, wharfs, &c	36	1,011,000	
Steamers (including 8 chartered)	28	112,000	
" (halibut fishing)	5	280,000	
Dories and gear		23,500	
Boats	2,800	168,000	
Gill and seine nets (fathoms)	375,000	281,875	
Trawls and lines		5,000	
Scows	150	30,000	
Cold storage plants	3	135,000	
Oil factories	2	45,000	
Salteries	5	7,500	
Traps	1	1,500	
			2,100,375
EMPLOYEES IN FISHERIES.		Number.	Total.
Salmon fishermen		3,502	
On vessels (including 180 on halibut steamers)		269	
In canneries		2,590	
			6,352

7-8 EDWARD VII., A. 1908

BRITISH COLUMBIA SALMON PACK, DISTRICT No. 1, 1906.

Name of Cannery.	Owners or Agents.	Sockeye.	Cohoos.	Springs.	Hump- backs.	Totals.
		Cases.	Cases.	Cases.	Cases.	Cases.
Terra Nova	B. C. Packers' Association.	56,076	4,195	783	1,578	62,632
Imperial						
Brunswick						
Currie McWilliams						
Ewen's	A. B. C. Packing Co ..	20,747	36	367	.....	21,150
British American						
Canoe Pass						
Phoenix						
Scottish Canadian	Malcolm, Cannon & Co.	14,851	1,366	.....	3,038	19,255
Richmond	J. H. Todd & Sons	6,600	2,600	4,500	.....	13,700
Canadian Canning Co .....	.....	19,050	.....	290	.....	19,340
Royal Packing Co .....	.....	7,154	2,669	383	.....	10,206
Burrard Canning Co .....	.....	4,077	920	1,397	133	6,527
Steveston Canning Co .....	.....	2,500	.....	.....	.....	2,500
George Wilson .....	.....	4,005	2,913	.....	.....	6,918
Great West Packing Co .....	.....	3,865	45	139	.....	4,049
Gulf of Georgia	Lee Coy	1,667	.....	950	.....	2,617
B. C. Canning Co .....	.....	9,395	3,593	359	.....	13,347
St. Mungo .....	.....	12,094	4,412	.....	1,204	17,710
Unique Canning Co .....	.....	3,440	3,390	1,300	2,690	10,820
Peter Birrell .....	.....	2,876	.....	.....	.....	2,876
Northern Canning Co .....	.....	4,975	857	.....	.....	5,832
J. J. Mulhall .....	.....	4,625	1,800	55	.....	6,480
Nye Canning Co .....	.....	790	25	.....	.....	815
		178,787	28,821	10,523	8,643	226,774

SESSIONAL PAPER No. 22

BRITISH COLUMBIA SALMON PACK, 1906—(CASES)—DISTRICT No. 2.

Name of Cannery.	Location.	Sockeye, 48 lb. cases.	Cohoe, 48 lb. cases.	Spring, 48 lb. cases.	Hump- back, 48 lb. cases.	Cannery Totals.	District Totals.
		Cases.	Cases.	Cases.	Cases.	Cases.	Cases.
Balmoral.....	Skeena	14,254	3,752	4,681	7,538	30,225	
Cunningham.....							
British American...		14,321	2,385	3,863	5,807	26,376	
North Pacific.....							
Dominion.....	"	6,356	1,096	58	4,501	12,011	
Inverness.....	"	7,820	1,100	1,560	3,200	13,680	
Oceanic.....	"	10,218	1,981	3,969	3,123	19,291	
Claxton.....	"	11,439	2,046	2,184	4,043	19,712	
Skeena River Com...	"	4,806	890	367	2,541	8,604	
Cassiar.....	"	5,543	1,575	1,198	4,204	12,520	
Alexander.....	"	1,986	400	698		3,084	
Carlisle.....	"	7,651	714	1,196	3,175	12,736	
Village Island.....	"	2,000	958	364	859	4,181	
Totals.....		86,394	16,897	20,138	38,991	162,420	162,420
Brunswick.....	Rivers Inlet ...	40,067		57		40,124	
Wadhams.....							
Good Hope.....		14,963	66	33		15,062	
Rivers Inlet.....		19,760				19,760	
Beaver.....		18,100				18,100	
Stratheona.....		14,629		28		14,657	
Kildela.....	"	15,112		63		15,175	
Totals.....		122,631	66	181		122,878	122,878
Naas Harbour.....	Naas.....	10,203	2,161	318	1,342	14,024	
Mill Bay.....							
Arrandale.....		4,657	2,248	249	2,108	9,262	
Port Nelson.....	"	7,306	1,588	354		9,248	
Totals.....		22,166	5,997	921	3,450	32,534	32,534
Lowe Inlet.....	North Coast ...	5,249	1,588		1,087	7,924	
Kimsguit.....		11,783	1,848	27	1,573	15,231	
Namu.....							
Bella Coola.....		5,299	4,879	1,010		11,188	
Smith's Inlet.....		10,000				10,000	
Totals.....		32,331	8,315	1,037	2,660	44,343	44,343
Skeena.....		86,394	16,897	20,138	38,991	162,420	
Rivers Inlet.....		122,631	66	181		122,878	
Naas.....		22,166	5,997	921	3,450	32,534	
North Coast.....		32,331	8,315	1,037	2,660	44,343	
Totals of each variety		263,522	31,275	22,277	45,101	362,175	

Grand Total..... 362,175 cases.

BRITISH COLUMBIA FISHERIES, 1906—DISTRICT No. 2.

Number.	VESSELS, BOATS, &c.				FISHING MATERIALS.				KINDS AND QUANTITIES OF FISH AND FISH PRODUCTS.				Number.			
	Vessels.		Boats.		Gill-nets.		Seines.		Trawl Lines.	Salmon, salt, brs.	Salmon, dry salt, lb.	Salmon, smoked, lb.				
	Number.	Gross tons.	Value.	Men.	Number.	Value.	Fathoms.	Value.								
1 Skeena.....	16	700	60,000	59	990	95,500	3,142	209,600	102,860	450	1,000	.....	200,000	50,000	1	
2 Rivers Inlet	7	300	35,000	34	820	35,605	2,300	155,600	75,000	.....	.....	.....	80	450,000	2,000	2
3 Naas	3	100	3,950	9	176	17,640	744	66,000	34,147	100	400	.....	100	80,000	70,000	3
4 North Coast.....	11	250	26,500	33	165	6,390	717	32,320	13,200	2,200	5,900	8,000	500	100,000	60,000	4
5 Queen Charlotte Islands	2	80	3,000	8	18	2,000	80	.....	.....	.....	.....	12,000	500	100,000	.....	5
Total.....	39	1,430	128,450	143	2,079	157,135	6,983	463,520	225,207	2,750	7,300	20,000	1,180	930,000	182,000	
Values.....	8												11,800	46,500	18,200	

SESSIONAL PAPER No. 22

BRITISH COLUMBIA FISHERIES, 1906—DISTRICT NO. 2—Continued.

KINDS AND QUANTITIES OF FISH AND FISH PRODUCTS.														
District No. 2.	KINDS AND QUANTITIES OF FISH AND FISH PRODUCTS.													
	Salmon, fresh, lb.	Salmon (frozen), lb.	Salmon in tierces, mild, cured.	Halibut, lb.	Herring, salt and fresh, lb.	Herring, smoked, lb.	Onlachon, fresh, lb.	Onlachon, salt, brl.	Onlachon, smoked, lb.	Trout, lb.	Mixed, lb.	Hair seal, lb.	Fish oil, gall.	Canned clams, case.
Number.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Skeena	156,389	673,491	650	500,000	5,000	3,000	12,000	90	1,000	7,000	9,000	400	1,200	
2 Rivers Inlet.....	20,000			4,000	10,000					2,000	3,000	500	400	
3 Naas	10,000		307	100,000	6,000	1,000	500,000	1,500	2,000	1,000	5,000	300	800	
4 North Coast	8,000			80,000	90,000			120	2,800	9,000	12,000	500	9,000	
5 Queen Charlotte Islands....	100,000			170,000	50,000	7,000				3,000	50,000	400	16,450	300
Total.....	294,389	673,491	957	854,000	161,000	11,000	512,000	1,710	5,800	22,000	79,000	2,100	27,850	300
Values.....	29,439	35,635	61,858	42,700	8,050	1,100	25,600	17,100	580	2,200	3,950	525	9,747	1,440
* Including all cannery employees.														
Estimate of fish not included in above.....														
Grand total.....														
100,000														
2,589,474														

RECAPITULATION

OF Yield and Value of Fisheries in District No. 2, British Columbia, for Year 1906.

Kinds of Fish.	Quantity.	Price. *		Value.
		\$	cts.	
Salmon, canned.....48 lb. cases	362,175	6	00	2,173,050
" salted.....brls.	1,180	10	00	11,800
" dry salted.....lb.	930,000	0	05	46,500
" smoked....."	182,000	0	10	18,200
" fresh....."	294,389	0	10	29,439
" frozen....."	673,491	0	05	33,635
" mild cured.....tierces	957			61,858
Halibut.....lb.	854,000	0	05	42,700
Herring, fresh and salted....."	161,000	0	05	8,050
" smoked....."	11,000	0	10	1,100
Oulachon, fresh....."	512,000	0	05	25,600
" salted.....brls.	1,710	10	00	17,100
" smoked.....lb.	5,800	0	10	580
Trout....."	22,000	0	10	2,200
Mixed....."	7,900	0	05	3,950
Hair seal.....skins	2,100	0	25	525
Fish oil.....galls.	27,850	0	35	9,747
Canned clams.....cases	300	4	80	1,440
Estimate of fish not included in above.....				100,000
				2,589,474

FISHERIES Capital invested in British Columbia, District No. 2, 1906.

Description of Property.	Number.	Value.
		\$
<i>Fisheries—</i>		
Canneries, wharfs, &c.....	37	647,500
Vessels.....	39	128,450
Boats, scows, camp scows.....	2,079	157,135
Gill and seine nets (fathoms).....	463,520	225,207
Trawls and lmes.....		1,000
Oil factories.....	2	8,000
Salteries.....	6	24,000
Total capital.....		1,191,292
<i>Employees in fisheries—</i>		
Fishermen and cannery workers.....	6,983	
Employed in vessels.....	143	
Total.....	7,126	

SESSIONAL PAPER No. 22

BRITISH COLUMBIA—DISTRICT No. 3.

Return showing the Number and Value of Vessels and Boats, Nets, &c., also the Kinds of Fish caught in British Columbia for the Year 1906.

VESSELS AND BOATS.				FISHING MATERIALS.						KINDS OF FISH.							
Vessels.		Boats.		Gill-nets.		Seines.		Trap-nets.		Lines.	Salmon, canned cases, No.	Salmon, dry-salted, lb.	Salmon, smoked, lb.	Salmon, fresh, lb.	Halibut, fresh, lb.	Number.	
Value.	Men.	Number.	Value.	Fathoms.	Value.	Fathoms.	Value.	Number.	Value.								
1	Nanaimo.....	24,500	23	104	6,240	230	5,600	4,480	4,400	6,600	.....	1,200	.....	492,000	49,600	223,400	132,800 1
2	Cowichan.....	4,000	5	34	2,040	68	1,760	1,408	800	1,200	.....	400	.....	275,500	32,900	195,000	127,500 2
3	Victoria.....	22,800	54	39	2,340	88	1,950	1,560	500	750	40	400,000	13,712	1,085,000	19,800	234,000	158,900 3
4	Clayoquot.....	15,000	11	41	2,460	104	3,150	2,520	2,800	4,200	.....	400	8,210	1,450,000	12,900	25,600	35,800 4
5	Alberni.....	14,500	9	44	2,640	142	3,340	2,672	2,300	3,450	3	30,000	6,600	39,500	9,700	29,000	24,000 5
6	Albert Bay.....	6,500	8	30	1,800	61	1,850	1,480	800	1,200	.....	475	7,388	45,600	2,300	5,900	15,200 6
7	Quathiaska.....	3,500	5	21	1,260	72	1,340	1,072	2,500	3,750	.....	400	4,182	.....	3,000	5,000	2,100 7
8	Comox.....	4,000	4	18	1,080	59	1,050	840	1,500	2,750	.....	375	.....	79,400	3,900	6,800	91,600 8
9	West Coast, Mainland.....	5,500	7	32	1,920	81	950	760	4,600	6,900	.....	1,450	419	512,700	9,800	10,500	24,800 9
Totals.....		100,300	126	363	21,780	905	20,990	16,792	20,200	30,800	43	430,000	40,511	4,573,700	143,900	734,600	612,700
Values.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	243,066	228,985	14,390	73,460	30,635

SESSIONAL PAPER No. 22

RECAPITULATION

Of the Yield and Value of the Fisheries of District No. 3, British Columbia.

Kinds of Fish.	Quantity.	Price.		Value.
		\$	cts.	\$
Salmon, canned.....48 lb. Cases.	40,511	6	00	243,066
" dry salted.....Lb.	4,561,700	0	05	228,985
" smoked....."	143,900	0	10	14,390
" fresh....."	734,600	0	10	73,460
Halibut, fresh....."	612,700	0	05	30,635
Herring, fresh and salted....."	8,704,000	0	05	435,200
" smoked....."	168,900	0	10	16,890
Smelts....."	212,500	0	05	10,625
Oulachon, fresh and salted....."	5,560	0	05	278
Trout....."	302,900	0	10	30,290
Cod....."	371,000	0	06	22,260
Mixed fish....."	378,500	0	05	18,925
Hair seal skins.....No.	3,500	0	75	2,625
Fish oil.....Galls.	89,700	0	35	31,395
Clams.....Sacks, 125 lb. each.	8,380	1	00	8,380
Oysters....."	1,450	3	50	5,075
Crabs.....Doz.	3,850	0	50	1,925
Products of Seshart whaling station.....				92,911
Shrimps and prawns.....				2,250
Abalonies and mussels.....				2,500
Estimate of fish not included above.....				95,150
Fur seal skins.....No.	10,368	30	50	316,224
Total.....				1,683,439

7-3 EDWARD VII., A. 1908

STATEMENT of the Capital invested in District No. 3, British Columbia Fisheries, 1906.

Description of Property.	Number.	Values.	Totals.
		\$	\$
Canneries, wharfs, &c		98,500	
Vessels	36	100,300	
Boats	363	21,780	
Gill and seine-nets (fathoms).....	40,990	47,592	
Trap-nets and traps.	43	430,000	
Lines		8,725	
Whaling station, plant and wharfs.....	1	125,196	
Salteries.....	18	45,000	
Scows.....	36	16,200	
Oil factories and barges.....	3	13,000	
			906,293
Fur sealing—			
Vessels	37	370,000	
Boats and canoes.....		5,800	
Guns and equipment.....		17,800	
			393,600
Capital total.....			1,299,893

Employees in Fisheries.	Number.	Totals.
Fishermen and cannery employees.....	1,590	
On vessels.....	126	
		1,716
Sailors and hunters in fur sealing—		
White men.....	180	
Indians	161	
		341
Total.....		2,057

SESSIONAL PAPER No. 22

BRITISH COLUMBIA SEALING REPORT, 1906.

Number.	Vessels.	License No.	Masters.	Tons	CREWS.		Boats.	Canoes.	B. C. COAST CATCH.		CATCH OUTSIDE AREA OF AWARD.		EASTERN BEHRING SEA CATCH.		Totals.	Branded skins.	Other skins.
					Whites.	Indians.			Males.	Females.	Males.	Females.	Males.	Females.			
1	Allie I. Alger.....	7	D. G. Macanley.....	75	8	10	5	5	51	42			143	172	408		
2	Carrie C. W.....	16	J. G. Searle.....	92	8	26	13	13					254	274	528		
3	Carlotta G. Cox....	5	John Christian.....	76	21		6	6	165	188	89	196	23	42	703		
4	Casco.....	1	W. Munro.....	63	21		6		196	167	131	127	86	102	809		
5	City of San Diego....	2	A. C. Folger.....	46	18		6		105	67	151	44	23	22	412		1
6	Diana.....	3	A. B. Whidden.....	50	18		6		122	230	133	155	77	117	834		
7	Otta.....	17	W. D. Byers.....	86	8	24	12	12					267	315	582	25	
8	Dora Sieward.....	13	R. E. McKid.....	94	7	25	13	13	2	7			188	183	380	1	
9	Markland.....	12	Geo. Heater.....	99	8	31	15	15					293	398	691	6	
10	Fawn.....		Lost at sea.....														
11	Ida Etta.....	15	H. F. Brown.....	69	6	11	2	6					84	119	203		
12	Libbie.....	11	W. Heater.....	93	8	24	12	12	30	21			319	213	592		
13	Vera.....	6	A. St. Clair.....	60	21		6		138	119	154	133	42	34	620		
14	Victoria.....	14	B. M. Balcom.....	63	21		6		50	27	104	64	70	44	359		
15	Zillah May.....	8	W. Delouchrey.....	66	7	10	5	5	42	50			118	89	299		
16	E. B. Marvin.....										1,126	1,032			2,158		
				1,032	180	161	52	81	910	918	1,888	1,751	1,987	2,124	9,578	32	13
Indian catch (by individual Indians in canoes along the coast).....															790		
Total catch of Canadian vessels.....															10,368		

SUMMARY.

British Columbia coast catch.....	2,618
Catch outside area of award.....	3,639
Eastern Behring sea catch (vicinity of Pribyloff islands).....	4,11
Total.....	10,368

RECAPITULATION

OF the Yield and Value of Fisheries in all **British Columbia**, for the Year 1906.

Kinds of Fish.	Quantity.	Price.	Value.	Total.
		\$ cts.	\$	\$
Salmon, canned 48 lb. cases.	629,460	6 00	3,776,760	
" fresh or frozen Lb.	5,156,480	0 05	483,934	
" smoked "	425,900	0 10	42,590	
" dry salted "	14,503,252	0 05	771,843	
" pickled Brls.	2,180	10 00	21,800	5,096,927
Halibut Lb.	11,416,700	0 05		570,835
Herring, salted and fresh "	8,934,000	0 05	446,250	
" smoked "	187,900	0 10	18,790	
Oulachons, fresh "	547,560	0 05	27,378	465,040
" smoked "	7,000	0 10	700	
" salted Brls.	1,780	10 00	17,800	
Smelts Lb.	412,500	0 05		45,878
Trout "	484,900	0 10		20,625
Cod "	711,000	0 05		48,490
Shad "	10,000	0 05		39,200
Sturgeon "	25,000	0 10		500
Mixed fish "	466,400			2,500
Oysters Sacks.	1,450	3 50		26,875
Clams "				5,075
Mussels, crabs, shrimps, &c. "				9,820
Estimate of fish not included above. "				6,675
Fish oil Galls.	125,265			298,061
" guano Tons.	140	25 50		43,842
Fur seal skins. No.	10,368	30 50		3,570
Hair "	5,600			316,224
				3,150
Total, 1906				7,003,347
" 1905				9,850,216
Decrease				2,846,869

SESSIONAL PAPER No. 22

RECAPITULATION

OF the Capital invested in the Fisheries of the whole of British Columbia, 1906.

Articles.	Number.	Value.	Total.
		\$	\$
Fishing vessels and steamers.....	108	620,750	
" " boats.....	5,242	346,915	
" dories.....		23,500	
Fathom of gill-nets and seines.	879,510	554,674	991,165
Trawls and lines.....		14,725	
Trap-nets.....	44	431,500	
Salmon canneries, wharfs, &c.	77	1,757,000	1,000,899
Salteries for fish.	29	76,500	
Oil factories.	7	66,000	
Cold storage for fish.....	3	135,000	
Fishing scows.....	186	46,200	
Whaling station	1	125,196	
<i>Fur Sealing Fleet.</i>			2,205,896
Vessels	37	370,000	
Boats.....		5,800	
Equipment.....		17,800	
			393,600
Total			4,591,560

EMPLOYEES IN FISHING INDUSTRY.

Men.	Number.	Total.
In vessels.....	529	
In fishing boats and in canneries.....	14,665	
Seal hunters—		15,194
Whitemen	180	
Indians	161	
		341
Total.		15,535

APPENDIX No. II

FISH-BREEDING, 1907.

REPORT BY PROFESSOR EDWARD E. PRINCE, COMMISSIONER AND
GENERAL INSPECTOR OF FISHERIES FOR THE
DOMINION OF CANADA.

To the Honourable L. P. BRODEUR,
Minister of Marine and Fisheries,
Ottawa.

SIR,—In presenting my annual report upon the hatcheries and fish-breeding operations carried on under the auspices of the Dominion government I feel special satisfaction in stating that the growth of these operations has continued during the past twelve months and whereas in my last report there were thirty hatcheries engaged in the work of fish-culture, there were during the season of 1906-7 thirty-four hatcheries at work. In addition to these several new hatchery buildings were commenced, and are now in a more or less advanced state. The rapidly developing fisheries of the province of British Columbia rendered especially urgent the construction of new Pacific hatcheries. The necessity of these institutions was prominently laid before the government in the reports already submitted by the British Columbia Fisheries Commission, of which commission I had the honour of being appointed chairman, and important bodies, such as the boards of trade in various Pacific cities, fish canners' associations, fishermen's societies, &c., have united in making similar representations. Public opinion is, indeed, favourable in the highest degree to the expansion of artificial fish-breeding in its various branches, and the federal government has not been slow to recognize the desirability of extending hatchery operations.

The opinion prevails that hatcheries should be located near the natural breeding grounds of important food fishes, and while this is desirable and in many ways advantageous, yet it is not essential, as I pointed out in former reports. Some of the most successful hatcheries have been located very distant from the natural spawning areas, and the eggs have been shipped, in many instances, long distances, but the fry when hatched out were, as a value, more readily distributed over wide areas, and benefit accrued to more extensive water areas than would have been possible from hatcheries in isolated places or locations far removed from coach and rail communication. In British Columbia the difficulties in the way of building and operating such hatcheries are exceptionally great, as the breeding grounds of the most valuable kinds of salmon and trout are in remote unsettled regions, and often on almost inaccessible lakes and tributaries hidden away in wild mountainous regions. The initial cost of building such hatcheries is very considerable, while to operate them is also costly and often very difficult owing to the obstacles to transportation of supplies, &c. These difficulties have not deterred the department, and the Rivers inlet and Lake Lakelse hatcheries in British Columbia are evidence of the policy of the Dominion government to adopt the most effective measures for perpetuating the kinds of salmon and other fish upon which important fishing industries depend.

SESSIONAL PAPER No. 22

A deputation, representing the canners' and the fishermen's interests on the Pacific coast, which waited upon the Honourable the Minister in March last laid special stress upon the immediate erection of no less than four new salmon hatcheries in British Columbia, and the enlargement of the capacity of a fifth hatchery. Of the ten separate requests urged upon the attention of the Honourable L. P. Brodeur, and supported by the Honourable William Templeman, the proposal respecting hatcheries was placed first, and it was recommended that fish-breeding establishments be built on Stuart lake, on the headwaters of the Fraser river; on Nechacco river, Fraser lake, about fifty miles south of Stuart lake; Quesnelle lake, and on Babine lake, at the source of the Skeena river. The capacity of the Lakelse Hatchery, it was pointed out, might be increased to ten million of salmon eggs, and the proposed Stuart lake, Nechacco river and Quesnelle lake hatcheries be of the same capacity. Additional hatcheries have been also pressed on the attention of the government to be erected on the Cowichan river, east side of Vancouver island, and on the west side of the island at Alberni or on some of the interior lakes where most favourable conditions exist. Sites have been examined and reported upon; but, in reference to the Cowichan hatchery, it may be pointed out that a British Columbia firm whose application for fishing privileges in Cowichan bay has been favoured by the department undertook to include as one of the conditions of a fishery lease the erection and operation of a salmon and trout hatchery. The work of such a hatchery would be under strict government control and supervision. The important Babine Lake hatchery scheme has been pushed on with such vigour that the building is now completed and operations will be commenced this season, and all interested in the great Skeena river salmon fisheries, including the resident Indian tribes, are looking with confidence to great benefits in the near future resulting from the increased supply of young salmon in the more remote upper waters of this northern river. While some of the British Columbia hatcheries found during the past season that the shortage of parent salmon prevented the securing of full supplies of spawn from the accustomed breeding grounds, others, like the Rivers inlet and Birkenhead river or Lillooet hatcheries experienced no difficulty in obtaining ample quantities of salmon eggs, indeed, so well supplied were the breeding grounds with schools of parent fish that twice or thrice the quantity of ova needed could have been secured without difficulty.

On the great lakes a new hatchery has been erected at Wiarton and is in operation for the first time this season, and it is expected it will be the means of filling a long felt want in that locality.

The lobster hatcheries, five in number, have again operated most satisfactorily, and the total number of young lobsters planted as no less than 500 millions.

During the season of 1907 a grand total of no less than 813,979,350 fry of various kinds of fresh water and marine fishes were planted from the Dominion government hatcheries.

The table which follows shows the various species of fish and the total number of each kind respectively hatched and successfully planted from the different establishments operated by the department during the year.

Atlantic salmon (<i>Salmo salar</i>)..	12,800,000
B. C. salmon..	54,475,350
Speckled trout (<i>Salvelinus fontinalis</i>)..	863,000
Salmon trout (<i>Salvelinus namaycush</i>)..	3,476,000
Grey trout (<i>Cristivomer namaycush</i>)..	840,000
Pickeral or Doré (<i>Stizostedion vitreum</i>)..	41,500,000
Lake whitefish (<i>Coregonus clupeiformis</i>)..	199,025,000
Lobster (<i>Homarus americanus</i>)..	501,000,000
Total..	813,979,350

7-8 EDWARD VII., A. 1908

For facility of reference the detailed table below specifies the name and location of each hatchery, also the quantities of young fish and of eggs in an advanced condition supplied by each establishment respectively, and the species of fry or the kind of eggs so distributed during the season.

The lobster pounds near Gabarouse were again in operation, under an arrangement with Mr. H. E. Baker, who has most enthusiastically carried out the work, under departmental supervision and inspection. The total number of seed lobsters, *i.e.*, lobsters carrying berries or eggs replaced in the coast waters off Cape Breton county, N.S., was 43,905, and all who have followed this planting of adult female lobsters during the last years at government expense are sanguine of great benefit to the valuable lobster industry of eastern Nova Scotia.

The breeding of black bass in the inclosed ponds near Belleville, Ontario, has been continued during the season, and from the adult specimens of this fine game fish, numerous fingerlings or advanced fry were reared and distributed in suitable waters in the province of Ontario. •

SESSIONAL PAPER No. 22

QUANTITIES OF FRY DISTRIBUTED.

The following table shows the number of various species of fish turned out from the Dominion hatcheries:—

Number.	Name of Hatchery.	Number of Fry distributed.	Number of Eggs sent to other Hatcheries.	Species of fish.
1	Ottawa, Ont	877,000	292,000	Salmon Trout.
	"	525,000		Whitefish.
	"	95,000		Atlantic Salmon.
	"	55,000		Speckled Trout.
2	Newcastle, Ont	1,807,000		Salmon Trout.
3	Sandwich, Ont	61,500,000		Whitefish.
	"	41,500,000		Pickarel.
4	Gaspé, P.Q.	1,175,000		Atlantic Salmon.
5	Tadoussac, P.Q.	3,360,000	500,000	" "
6	Lac Tremblant, P.Q.	642,000		Salmon Trout.
7	St. Alexis, P.Q.	670,000	300,000	Speckled Trout.
8	Magog, P.Q.	150,000		Salmon Trout.
	"	105,000	155,000	Speckled Trout.
	"	840,000		Gray Trout.
	"	115,000		Atlantic Salmon.
9	Bedford, N.S.	440,000		" "
	"	33,000		Speckled Trout.
	"			
10	Margaree, N.S.	925,000		Atlantic Salmon.
11	Windsor, N.S.	721,000		" "
12	Bay View, N.S.	155,000,000		Lobsters.
13	Canso, N.S.	60,000,000		" "
14	Miramichi, N.B.	1,670,000		Atlantic Salmon.
15	Restigouche, N.B.	2,139,000		" "
	"			
16	Grand Falls, N.B.	1,365,000		Atlantic Salmon.
17	Shemogue, N.B.	126,000,000		Lobsters.
18	Shippigan, N.B.	80,000,000		" "
19	Charlottetown, P.E.I.	80,000,000		" "
20	Kelly's Pond, P.E.I.	790,000		Atlantic Salmon.
*21	Selkirk, Man.	45,000,000		Whitefish.
*22	Berens River, Man.	92,000,000		" "
23	Fraser River, B.C.	5,500,000		B. C. Salmon.
24	Granite Creek, B.C.	6,858,000		" "
25	Skeena River, B.C.	4,125,750		" "
26	Harrison Lake, B.C.	14,724,600		" "
27	Nimkish, B.C.	4,870,000		" "
28	Pemberton, B.C.	10,820,000	8,000,000	" "
29	Rivers Inlet, B.C.	7,577,000		" "

7-8 EDWARD VII., A. 1908

FISH-

Statement showing the places where and the years in which the Dominion fish establishment annually since the commencement

Number.	YEAR.	ONTARIO.			QUEBEC.		
		Newcastle.	Sandwich.	Ottawa.	Magog.	Tadousac.	Gaspé.
		Fry.	Fry.	Fry.	Fry.	Fry.	Fry.
1	1868-73.....	1,070,000					
2	1874.....	350,000					
3	1875.....	650,000				60,000	110,000
4	1876.....	700,000	8,000,000			150,000	50,000
5	1877.....	1,300,000	8,000,000			1,180,000	1,051,000
6	1878.....	2,605,000	20,000,000			707,000	650,000
7	1879.....	2,602,700	12,000,000			1,250,000	1,597,000
8	1880.....	1,923,000	13,500,000			1,155,000	730,000
9	1881.....	3,300,000	16,000,000		200,000	334,000	500,000
10	1882.....	4,841,000	44,000,000		975,000	660,000	530,000
11	1883.....	6,053,000	72,000,000		250,000	995,000	520,000
12	1884.....	8,800,000	37,000,000		100,000	985,000	859,000
13	1885.....	5,700,000	68,000,000		300,000	720,000	290,000
14	1886.....	6,451,000	57,000,000		1,400,000	1,627,000	576,000
15	1887.....	5,130,000	56,500,000		675,000	900,000	630,000
16	1888.....	8,076,000	56,000,000		3,475,000	850,000	800,000
17	1889.....	5,846,500	21,000,000		2,800,000	1,600,000	450,000
18	1890.....	7,736,000	52,000,000	5,732,000	2,875,000	1,700,000	806,000
19	1891.....	7,807,500	75,000,000	7,043,000	3,050,000	1,300,000	1,000,000
20	1892.....	4,823,000	44,500,000	4,909,000	2,400,000	624,000	965,000
21	1893.....	9,835,000	68,000,000	6,208,000	3,600,000	2,060,000	910,000
22	1894.....	6,000,000	47,000,000	4,480,000	2,035,000	1,975,000	850,000
23	1895.....	6,000,000	73,000,000	3,210,000	3,350,000	2,060,000	675,000
24	1896.....	5,200,000	61,000,000	3,950,000	3,400,000	2,500,000	300,000
25	1897.....	4,200,000	72,000,000	4,100,000	4,500,000	3,272,000	1,100,000
26	1898.....	4,325,000	71,000,000	3,020,000	3,100,000	2,200,000	
27	1899.....	4,050,000	73,000,000	3,700,000	3,098,000	2,125,000	
28	1900.....	5,175,000	90,000,000	3,450,000	3,099,000	1,400,000	
29	1901.....	5,900,000	67,000,000	3,410,000	3,135,000	2,960,000	
30	1902.....	650,000	100,000,000	1,245,000	935,000	2,750,000	734,000
31	1903.....	2,500,000	90,000,000	1,201,000	885,000	1,625,000	830,000
32	1904.....	1,475,000	75,000,000	877,000	283,000	2,615,000	1,520,000
33	1905.....	1,480,000	106,000,000	1,103,000	1,098,000	1,550,000	1,100,000
34	1906.....	1,550,000	88,000,000	1,123,000	875,000	2,435,000	1,100,000
35	1907.....	1,807,000	103,000,000	1,552,000	1,210,000	3,360,000	1,175,000
	Total.....	145,911,700	1,844,500,000	60,313,000	53,103,000	51,634,000	22,408,000

SESSIONAL PAPER No. 22

BREEDING.

hatcheries have been erected; also the number of fry distributed from each of operations, including the year 1907.

QUEBEC— <i>Con.</i>		NEW BRUNSWICK.					Number.
St. Alexis des Monts.	Mont- Tremblant.	Ristigouche.	Miramichi.	St. John River.	Lobster Hatchery, Shemogue.	Lobster Hatchery, Shippigan.	
Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	
.....	100,000	60,000	.....	.....	.....	1
.....	600,000	150,000	.....	.....	.....	2
.....	300,000	60,000	.....	.....	.....	3
.....	600,000	320,000	.....	.....	.....	4
.....	1,015,000	665,000	.....	.....	.....	5
.....	1,470,000	1,025,000	.....	.....	.....	6
.....	1,500,000	805,000	170,600	.....	.....	7
.....	740,000	770,000	50,000	.....	.....	8
.....	1,400,000	640,000	588,000	.....	.....	9
.....	300,000	925,000	72,600	.....	.....	10
.....	940,000	795,000	811,000	.....	.....	11
.....	660,000	900,000	155,000	.....	.....	12
.....	1,380,000	945,000	2,181,000	.....	.....	13
.....	1,500,000	900,000	2,479,000	.....	.....	14
.....	1,720,000	1,290,000	4,142,000	.....	.....	15
.....	1,280,000	850,000	3,570,000	.....	.....	16
.....	2,396,000	1,022,000	3,492,000	.....	.....	17
.....	1,750,000	1,503,000	3,165,000	.....	.....	18
.....	1,240,000	1,310,000	2,378,000	.....	.....	19
.....	883,000	975,000	3,299,000	.....	.....	20
.....	1,080,000	1,010,000	4,096,000	.....	.....	21
.....	2,885,000	1,200,000	4,060,000	.....	.....	22
.....	1,250,000	1,430,000	4,068,000	.....	.....	23
.....	2,100,000	1,558,000	4,155,000	.....	.....	24
.....	1,135,000	1,557,000	3,290,000	.....	.....	25
.....	2,025,000	1,605,000	3,980,000	.....	.....	26
.....	1,125,000	1,620,000	3,957,000	.....	.....	27
.....	1,750,000	1,800,000	3,605,000	.....	.....	28
.....	2,310,000	1,700,000	998,000	.....	.....	29
.....	2,052,000	1,000,000	648,000	17,000,000	.....	30
125,000	2,525,000	1,500,000	909,000	52,000,000	50,000,000	31
298,000	570,000	2,333,000	1,400,000	807,000	100,000,000	100,000,000	32
493,000	553,000	1,620,000	1,650,000	1,350,000	122,000,000	70,000,000	33
670,000	642,000	2,139,000	1,675,000	1,365,000	126,000,000	80,000,000	34
1,586,000	1,767,000	48,103,000	36,615,000	63,841,200	417,000,000	300,000,000	35

7-8 EDWARD VII., A. 1908

FISH-BREEDING.
STATEMENT showing the Places where and the Years in which the several Fish Hatcheries have been erected, &c.—*Continued.*

Number.	YEAR.	NOVA SCOTIA.						P. E. ISLAND.	
		Bedford.	Sydney.	Margaree.	Windsor.	Lobster Hatchery Bay View.	Canso.	Kelly's Pond.	Lobster Hatchery Charlottetown.
1	1868-73.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.
2	1874.	.....	.....	.....	.....	.....	.....	.....	.....
3	1875.	.....	.....	.....	.....	.....	.....	.....	.....
4	1876.	.....	.....	.....	.....	.....	.....	.....	.....
5	1877.	395,000	.....	.....	.....	.....	.....	.....	.....
6	1878.	1,000,000	.....	.....	.....	.....	.....	.....	.....
7	1879.	1,400,000	.....	.....	.....	.....	.....	.....	.....
8	1880.	1,740,000	.....	.....	.....	.....	.....	.....	.....
9	1881.	730,000	.....	.....	.....	.....	.....	.....	.....
10	1882.	680,000	.....	.....	.....	.....	.....	.....	.....
11	1883.	850,000	315,000	.....	.....	.....	.....	.....	.....
12	1884.	800,000	650,000	.....	.....	.....	.....	.....	.....
13	1885.	1,000,000	853,000	.....	.....	.....	.....	.....	.....
14	1886.	670,000	772,000	.....	.....	.....	.....	.....	.....
15	1887.	950,000	1,179,000	.....	.....	.....	.....	.....	.....
16	1888.	4,230,000	1,415,000	.....	.....	.....	.....	.....	.....
17	1889.	4,390,000	1,559,000	.....	.....	.....	.....	.....	.....
18	1890.	3,850,000	2,034,000	.....	.....	.....	.....	.....	.....
19	1891.	3,800,000	1,953,000	.....	.....	.....	.....	.....	.....
20	1892.	2,550,000	1,000,000	.....	.....	.....	.....	.....	.....
21	1893.	2,620,000	690,000	.....	.....	.....	.....	.....	.....
22	1894.	3,180,000	.....	.....	.....	.....	.....	.....	.....
23	1895.	3,805,000	288,000	.....	.....	.....	.....	.....	.....
24	1896.	3,815,000	195,000	.....	.....	.....	.....	.....	.....
25	1897.	4,225,000	243,500	.....	.....	.....	.....	.....	.....
26	1898.	5,450,000	496,000	.....	.....	.....	.....	.....	.....
27	1899.	3,000,000	.....	.....	.....	.....	.....	.....	.....
28	1900.	4,025,000	.....	.....	.....	.....	.....	.....	.....
29	1901.	3,970,000	.....	.....	.....	.....	.....	.....	.....
30	1902.	3,980,000	.....	.....	.....	.....	.....	.....	.....
31	1903.	900,000	95,000	.....	.....	.....	.....	.....	.....
32	1904.	710,000	600,000	.....	.....	.....	.....	.....	.....
33	1905.	1,213,000	562,500	.....	.....	.....	.....	.....	.....
34	1906.	880,000	799,500	.....	.....	.....	.....	.....	.....
35	1907.	1,071,000	910,000	.....	.....	.....	.....	.....	.....
		473,000	925,000	.....	.....	.....	.....	.....	.....
	Total	72,472,000	13,651,500	3,892,000	1,296,000	2,044,360,000	139,000,000	1,510,000	336,085,000

500,000
375,000
1,400,000
1,210,000
1,000,000
1,100,000
400,000
500,000
Output of
Punk R.
Hatche-
ry, now
closed.

FISH-BREEDING.

STATEMENT showing the Places where and the Years in which the several Fish Hatcheries have been erected, &c.--*Concluded.*

Number.	YEAR.	BRITISH COLUMBIA.					MANITOBA.		TOTAL.	
		Fraser River.	Harrison Lake.	Granite Creek, Steamos.	LaLakelse, Skeena River.	Pember-ton.	Rivers Inlet.	Nimkish River.		Selkirk.	Berens River.
		Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.	Fry.
1	1868-73.									1,070,000
2	1874.									510,000
3	1875.									1,570,000
4	1876.									9,655,000
5	1877.									13,451,000
6	1878.									27,042,000
7	1879.									21,684,700
8	1880.									21,013,600
9	1881.									22,949,000
10	1882.									55,799,000
11	1883.									83,784,600
12	1884.									53,143,000
13	1885.	1,800,000								81,067,000
14	1886.	2,625,000								70,714,000
15	1887.	4,414,000								79,273,000
16	1888.	5,807,000								88,109,000
17	1889.	4,419,000								47,699,500
18	1890.	6,640,000								90,212,000
19	1891.	3,063,800								115,772,300
20	1892.	6,000,000								135,959,000
21	1893.	5,764,000								238,314,000
22	1894.	7,800,000							14,500,000	254,919,000
23	1895.	6,390,000							19,000,000	294,040,000
24	1896.	10,393,000							4,500,000	202,450,000
25	1897.	5,928,000								198,859,000
26	1898.	5,850,000							9,000,000	192,477,000
27	1899.	4,742,000							20,000,000	229,350,000
28	1900.	6,200,000							32,000,000	271,906,000
29	1901.									203,540,000
30	1902.	9,214,000		6,760,000					23,000,000	271,301,000
31	1903.	9,573,000		4,866,500	3,450,000			1,636,000	12,000,000	314,576,500
32	1904.	6,584,000		3,074,000	4,000,000			2,496,000	31,500,000	473,258,500
33	1905.	2,550,000		4,000,000	3,767,900			2,800,000	25,500,000	627,541,400
34	1906.	9,130,000		10,888,000	3,784,000	17,450,000	8,000,000	4,873,400	...	657,925,400
35	1907.	5,500,000		6,858,000	4,125,750	10,820,000	7,577,000	4,870,000	45,000,000	813,979,350
	Total.	130,926,800	50,002,600	36,446,560	19,127,650	28,270,000	15,577,000	16,675,400	236,000,000	6,284,014,350

7-8 EDWARD VII., A. 1908

The details of the work are summarized in the report of Mr. F. H. Cunningham, Superintendent of Fish Culture, which immediately follows my present report, while the full particulars of each hatchery's operations are given by the various officers in charge of hatcheries under the respective headings of the reports which follow.

IMPERIAL AND FOREIGN VISITORS, ETC.

The extent and the success of Canadian fish culture, as carried on during the last forty years, for the first twenty-five years under the superintendence for most of the time of the late Mr. Samuel Wilnot, and during the last twelve years (since 1894) under my responsible charge as Commissioner of Fisheries, have naturally excited interest in other parts of the British Empire, as well as in various foreign countries. Numerous inquiries are addressed to me or reach the department asking for information, and to meet that desire I prepared and published as a special report (Fisheries Report, 1905, p. xc.), a very condensed but sufficiently full and detailed account entitled 'Fish Culture in Canada.*' Officials of high rank have also interviewed me, and last June a specially interesting visit was made by a high official of India, the Honourable K. A. Gupta, of the Indian Civil Service, Calcutta, who obtained from me full information on the system of artificial fish-breeding carried on in Canada, with a view to inaugurating a system of fish culture in the great presidency of Bengal with its teeming millions of Hindu natives. Mr. Gupta visited Europe and the United States but he has written to me stating that he values especially the extensive information which I afforded him on his visit to Canada.

Recently Sir F. A. Nicholson, K.C.I.E., well known as a high official in the Imperial service of the Madras Presidency, India, has sought information from me on our hatching methods in Canada as the Madras authorities contemplate some extensive operations with a view to the improving of the fishery resources of that country. Amongst other visitors to the Dominion who evinced special interest in lobster hatcheries and other departments of Canadian fish hatchery work were Commissioner John W. Delano, of the Fish, Game and Forestry Commission of Massachusetts, and Dr. George W. Field, a distinguished official of the same commission.

FISH COMMISSION AND HATCHERIES.

The two important fishery commissions which for the past two seasons have been investigating respectively the fisheries of British Columbia, and the inland fisheries of Georgian bay and western Ontario generally, have given prominence to the question of hatcheries and fish-breeding, and in the reports about to be presented for the consideration of the Dominion government their conclusions and recommendations will be of importance in regard to the future development and working of the federal hatcheries in the provinces referred to. I shall not therefore deal in my present report with some recent changes in the methods of fish culture adopted in other countries but treat them fully in a future report.

SERVICES OF EXPERIENCED OFFICERS.

I have only to add that I have visited and inspected quite a number of western and eastern hatcheries operated by this department and I am pleased to make reference to the intelligence, zeal and skill of the hatchery officials generally. Without such zealous and able officers successful fish culture would be impossible. Some of the officers have been in the service since fish hatching was inaugurated as a branch of the departmental work, and the system to-day owes much to the rare experience and sagacious enthusiasm of these veterans in Canadian fish culture.

I have the honour to be, sir,

Your obedient servant, ,

EDWARD E. PRINCE.

Dominion Commissioner of Fisheries.

* A reprint, much extended of my address to the Literary and Scientific Society of Ottawa, on the subject of Canadian Fish Culture.

ANNEX A.

OTTAWA, October 15, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries.
Ottawa.

SIR,—I beg to submit the following report on the operations conducted at Dominion fish breeding establishments during the past year.

It will be noticed that this service is being extended to all parts of the Dominion, as it is considered by practical fishermen the only means of keeping up and increasing the supply of food fish in Canadian waters.

At the present time there are hatcheries in operation at following points:—

British Columbia—

Bon Accord, Fraser River.
Harrison Lake.
Pemberton.
Granite Creek.
Lakelse Lake, Skeena River.
Rivers Inlet.
Babine Lake.
Stuart Lake.
Nimpkish.

Manitoba—

Selkirk.
Berens River.

Ontario—

Sandwich.
Ottawa.
Newcastle.
Warton.
Quinté.

Quebec—

Magog.
Mont Tremblant.
St. Alexis des Monts.
Lake Lester.
Tadousac.
Gaspé.

New Brunswick—

Restigouche.
Grand Falls, St. John River.
Miramichi.
Shippigan.
Shemogue.

Nova Scotia—

Bedford.
Windsor.
Margaree.
Bay View.
Canso.

Prince Edward Island—

Kelly's Pond, Southport.
Blockhouse Point, Charlottetown Harbour.

HATCHERY SITES.

The selection of a suitable site is the initial and most important factor of the work. Not only must a supply of pure water be available at all times, but the spawning grounds should be within a reasonable distance of the location. Whilst this remark refers generally, it is perhaps more applicable to British Columbia where it is found that the Pacific salmon will not survive in confinement to the same extent as the Atlantic salmon, hence it becomes necessary that the locations for hatcheries on the Pacific coast must be nearer the spawning grounds than is actually necessary in the east, which means the erection of hatcheries far up the streams, and as very often happens in isolated places, hard to reach and expensive to maintain. The question arises, why not locate the hatcheries in more convenient places and transport the eggs and fry to and from such points. This could be done providing navigation would allow; but unfortunately for the system in British Columbia the streams are so rapid that the reaching of even the spawning beds nearest the mouths of the rivers would be a very expensive and hazardous undertaking.

Hence it became necessary when locating additional hatcheries in this province to go as far up the Skeena river as Babine and Stuart lakes to reach the natural spawning beds, at which points it is expected the hatcheries located there, which are now in operation, can be filled with eggs every year.

RETAINING PONDS.

The retaining pond for parent salmon in Little river, St. John, N.B., was successful last year and eggs were procured from the salmon inclosed therein for most of the hatcheries in the maritime provinces, from which establishments a successful distribution of healthy fry resulted. It might be of interest to state that a large percentage of salmon tagged and released from this pond in the fall of 1904 were again captured in the St. John river in the spring of 1906.

REARING PONDS.

The question of retaining fry until they have reached an age from three to six months is an important matter. The young fry are protected both from climatic conditions and from their natural enemies.

This system is being extended as facilities offer and the appropriation at the disposal of the department for this service will permit. At the Pemberton hatchery in British Columbia this system is being most successfully conducted.

The rearing ponds at Lake Lester, in the province of Quebec, are most satisfactory and the fishing in the lakes in which fingerlings have been planted is reported to have wonderfully improved.

SESSIONAL PAPER No. 22

DISTRIBUTING FRY.

In my report of last year, reference was made to the stocking of lakes by localities instead of planting small quantities of fry over widely scattered areas. This suggestion has been followed to a small extent, but the system of 'Applications for Fry' makes it difficult to be carried out as fully as could be wished; but it is again strongly recommended that this system of distributing be extended as occasion offers.

Reference must be made to the impossibility of supplying applications for speckled trout fry. It is not possible to secure eggs from this species in large quantities, and the planting of these fry should be limited to only such public waters as have been entirely depleted.

In this connection it may be mentioned as an instance of the success attending this work that Atlantic salmon weighing as much as seven pounds are reported to have been captured in the Cowichan river, B.C., and black bass of four pounds in weight have been taken in Langford lake, B.C. It has also been reported that the bass are doing well in Florence lake. These fish are the result of a small shipment of salmon made to these waters a few years ago and the bass were planted in 1904. The Atlantic salmon have also done exceedingly well in Lakes Memphremagog and Charleston and in the last named lake fish of seven pounds weight have been captured.

BRITISH COLUMBIA.

Fraser River Hatchery.

This hatchery last year gave good results and over five millions of fry were distributed. A shipment of sockeye fry was made to the rivers on the west coast of Vancouver island from this establishment in addition to the Atlantic salmon that were hatched from eggs sent from the east.

Harrison Lake Hatchery.

This large establishment had an output of close to fifteen millions of fry last season. The collection of the ova was attended with great difficulty owing to the freshets which washed out the fences and allowed a large number of fish to escape after they had been penned.

Pemberton Hatchery.

The same difficulty was experienced in this establishment as at the Harrison lake hatchery with regard to the high water in the rivers allowing the fish to escape and in some cases washing out the fences; but in spite of all a large number of eggs were secured and a distribution of about eleven millions of fry was accomplished after eight million eggs had been sent to other hatcheries.

Granite Creek Hatchery.

The distribution from this establishment amounted to almost seven million fry which were successfully liberated in good condition. The good work of this hatchery is quite apparent as salmon were last year taken in streams in which they had never before been seen.

Skeena River Hatchery.

This hatchery was last year filled to its utmost capacity and experienced one of its most successful years since it was first established, liberating over four million fry in splendid condition.

Rivers Inlet Hatchery.

The output of fry from this hatchery was over seven and a half million, the same difficulty being experienced as at some of the other hatcheries on account of the high water which either destroyed the fences or overflowed them to such an extent that the fish escaped.

Nimkish Hatchery.

This establishment is operated by the Alert Bay Canning Company, B. C. Parker's Association, and last year its operations resulted in the liberation of nearly five millions of fry.

MANITOBA.

The two whitefish hatcheries of this province, located at Selkirk and Berens river, were last year successfully operated and last spring one hundred and thirty-seven millions of strong healthy fry were liberated in the waters of Lake Winnipeg. The ova for these establishments is secured from fish captured in pound nets operated at Little Saskatchewan, Berens river and Pigeon bay.

ONTARIO.

Sandwich Hatchery.

This establishment is devoted to the handling of whitefish and pickerel, and last year over one hundred million fry were successfully distributed. For the first time a quantity of the whitefish ova were taken in the Bay of Quinté.

Ottawa Hatchery.

The operations at this hatchery were last year as usual very successful and a very large percentage of the eggs laid down in the troughs were hatched and distributed in good condition. The large district covered makes the distribution of fry a very arduous undertaking.

Newcastle Hatchery.

The operations at this establishment were last year attended with the usual success, and in addition to the salmon trout fry and yearlings a number of black bass were successfully raised and distributed.

Bass Ponds, Bay of Quinté.

The ponds at this point experienced one of the most successful years since their establishment and a larger number of bass fingerlings and a small quantity of yearlings have this year been successfully distributed.

QUEBEC.

Magog Hatchery.

This hatchery was again filled to a large extent with the eggs of grey trout taken in Lake Memphremagog. In addition a quantity of salmon trout, speckled trout and Atlantic salmon were successfully handled.

SESSIONAL PAPER No. 22

Lac Tremblant Hatchery.

This hatchery is devoted largely to the incubation of salmon trout but a small quantity of Atlantic salmon and speckled trout eggs are also handled. Last season's operations were very successful and the fry were distributed in splendid condition.

St. Alexis Hatchery.

This hatchery is devoted almost entirely to the hatching of speckled and marstoni trout. The supply of eggs is secured by the officer-in-charge from fish taken in the lakes of that district and owing to the nature of the country, this is a work that is attended with much difficulty.

Lake Lester Rearing Ponds.

The operations at this establishment have again been attended with success, and the good results attending the distribution of fingerlings are quite apparent in the waters of that vicinity.

Tadousac Hatchery.

Over three million fry were last year successfully distributed from this hatchery. The parent fish are taken in nets operated under the supervision of the officer-in-charge and are held in the retaining pond at the hatchery until they are ready for spawning.

Gaspé Hatchery.

The supply of ova for this hatchery is secured from the retaining-pond at St. John, and last year over a million fry were successfully distributed in the rivers of the locality.

NEW BRUNSWICK.

Restigouche Hatchery.

This hatchery was last year filled from eggs taken from fish captured in the departmental net operated by the officer-in-charge of the hatchery. Over two million fry were liberated in splendid condition.

St. John River Hatchery.

This hatchery was this year painted and is now in a splendid state of repair. A very successful year was experienced and a large number of fry were distributed.

Miramichi Hatchery.

A new building is being placed on the site occupied by the old hatchery and a cottage for the officer-in-charge is also being constructed. This work will be completed before this season's operations commence and will make this establishment one of the most modern in the maritime provinces.

Arrangements are being made to capture a large number of parent fish in the Miramichi river this season for the purpose of supplying some of the other hatcheries with eggs.

7-8 EDWARD VII., A. 1908

Salmon Pond, Little River.

The site selected at this point has proved very satisfactory as a salmon pond, and the fish spawning were in a very healthy condition. As a result the eggs secured were very healthy, and from the reports of the officers-in-charge of the various hatcheries the loss of eggs was smaller and the fry healthier than in any previous year.

Lobster Hatcheries.

The cold stormy weather during the month of May made the opening of the lobster fishing later than in previous years, and the eggs were therefore not placed in the hatchery jars as early as usual. The lobster hatcheries in this province are located at Shippigan and Shemogue, and the output was respectively eighty and one hundred and twenty-six millions of fry.

NOVA SCOTIA.

Bedford Hatchery.

This hatchery is devoted to the incubation of Atlantic salmon, but a small quantity of speckled trout are also handled. The salmon eggs are secured from the retaining pond at St. John, N.B.

Windsor Hatchery.

The eggs for the Windsor hatchery were last year secured from the Miramichi river and some seven hundred and twenty thousand fry were successfully distributed.

Margaree Hatchery.

Owing to the heavy freshet in the Margaree river last winter the pipe supplying the hatchery with water was washed out, as well as much damage done to the hatchery property. New iron piping is now being installed and the hatchery will be in readiness for its usual supply of eggs, which are secured from the St. John pond. Last season's operations resulted in the successful planting of some nine hundred and twenty-five thousand fry.

Lobster Hatcheries.

The stormy spring and ice on the coast made the lobster fishing later than usual, and as a result the output of fry from the Canso hatchery was not as large as usual, although it amounted to some sixty million fry. Bay View hatchery was more successful and succeeded in distributing one hundred and fifty-five millions.

PRINCE EDWARD ISLAND.

Kelly's Pond Hatchery.

The greater portion of the eggs for this hatchery were last year secured from the St. John pond but a quantity was shipped from Miramichi. The operations were again successful and some seven hundred and ninety thousand fry were distributed in a healthy condition.

Lobster Hatchery.

The lobster hatchery in this province is located at Blockhouse point, Charlotte-town harbour, and the operations were attended with greater success than last season. Some eighty million fry were distributed in a healthy condition.

SESSIONAL PAPER No. 22

GENERAL REMARKS.

There are now thirty-four establishments in operation throughout the Dominion with a number of applications on file for the extension of this service. These applications are from practical fishermen who place great value on the results obtained from the department's efforts.

I have visited as many institutions during the past year as possible, but a general supervision by myself of each and every hatchery from headquarters at Ottawa does not leave much time for inspection work; but this duty has been very ably performed by the inspector of hatcheries, Mr. Alex. Finlayson.

I have much pleasure in stating that all the officers connected with the service under my charge have attended to their duties faithfully, and another successful season's operations have resulted therefrom.

I am, sir,

Your obedient servant,

F. H. CUNNINGHAM,

Dominion Superintendent of Fish Culture.

ANNEX B.

REPORTS OF THE HATCHERY OFFICERS.

1. BON ACCORD HATCHERY.

NEW WESTMINSTER, B.C., April 9, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit my annual report of the operations conducted at the Bon Accord, Fraser river hatchery, for the season of 1906-7.

The following ova were secured last fall and placed in the hatchery in good condition:—

Pitt river, sockeye ova.	24,000
Pemberton, sockeye ova.	4,500,000
Serpentine and Nicomekl rivers, coho ova.	1,500,000

The loss during the period of incubation was comparatively small, and the follow- ing fry have been distributed with very little loss:—

Upper Pitt.	2,000,000
Silver creek.	1,000,000
Sachnauch creek.	60,000
Vancouver island.	250,000

The cohoes were deposited in Coquitlam and Hatchey creeks, and the balance of the sockeyes have since been liberated.

With regard to the shipment to Vancouver island, I may say that the steamer *Kestrel* took this shipment of 250,000 fry, leaving the Bon Accord hatchery on March 27 and making the first deposit in Anderson lake on the 28th; here we met Mr. Taylor, inspector of the island, who informed us that it would be impossible to plant any in the stream mentioned in the telegram on account of the falls; with this infor- mation we then decided to place an extra load in the Anderson lake, which we did. From here we travelled to Alberni sound, where I secured a rig, and driving eight miles deposited 75,000 fry in Sprott lake. Kennedy lake was our next move, but owing to a heavy fog we were compelled to lie in at Bamfield creek until Sunday morn- ing, and then proceed to Kennedy lake in very rough weather, the heavy seas playing havoc with our fish to the extent of about 1,500. I think a large percentage of those were only dazed, as they appeared to come to life when placed in the running water. On the whole, the trip was considered a very successful one, and with the exception of the small loss from rough weather the fish were in splendid condition when placed in the different waters.

The entire trip took ten days, as the steamer came back by way of the east coast of the island, but it was very instructive to all on board. Captain Ackerman, of the steamer *Georgia*, accompanied me at the request of Inspector Sword, to assist in look- ing after the fish.

No little praise is due the officers of the *Kestrel* for the interest they took in the experiment, both in tending the fish and in their distribution.

I am, sir, your obedient servant,
(Sgd.) J. A. JOHNSON.
Officer in Charge.

SESSIONAL PAPER No. 22

NEW WESTMINSTER, B.C., July 5, 1907.

Prof. E. E. PRINCE,
 Dominion Commissioner of Fisheries,
 Ottawa.

SIR,—I beg to report that we have got all the Atlantic salmon fry out and distributed as follows:—

Deadwood creek, Nanaimo.	10,000
Cowichan lake.	15,000
Englishmen's river.	14,000
Morris creek.	5,000
Comox lake.	38,000
Qualicum river.	33,000
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	115,000

They stood the journey well and were lively and strong when put in the water at their destination. We still have a few trout fry in the hatchery, which are well advanced and ready to go out.

I have the honour to be, sir,

Your obedient servant,

WM. ROXBURGH,
Officer-in-Charge.

2. HARRISON LAKE HATCHERY.

HARRISON HOT SPRINGS, B.C., July 26, 1907.

To Prof. E. E. PRINCE,
 Commissioner of Fisheries,
 Ottawa.

SIR,—I have the honour to report to you on the operations conducted at this hatchery for the season of 1906-7.

The collection of salmon ova last fall was attended with most unusual difficulties; on September 6, just as a few were beginning to arrive at the first opened creeks, we were visited with a serious freshet. At Silver creek the water rose six feet during the night, and in spite of all the men could do to keep the fence clear of debris it blocked up solid and then went out, carrying men, scow and boats with it. Next day we arrived with launch in time to rescue the men from an unenviable situation. After the creek had subsided, there being no appearance of fish, I thought it best to close the camp at this point.

At Douglas the prospects for fish up to time of freshet was very fair. Though the fence was not much damaged, yet sufficiently so to allow the fish to pass up, and although the breach was repaired as soon as possible, nothing worth while was taken.

At the three creeks near 20-Mile Point, as at Silver creek, there were not many fish at any time during season, and as the water rose four feet over the fences and flooded the whole neighbourhood, our operations at this point were not attended with success.

At Morris creek (our most important spawning creek), the fence was not in position at the time of this freshet (September 6), but on October 25, heavy warm rain together with the melting of early snow in the hills, caused a flood here also, which covered the whole valley. While the fence stood the strain the creek burst its banks half a mile up and made several new channels that gave the fish free passage. But for this, I estimate we should have had five million more sockeye eggs in our collection,

7-8 EDWARD VII., A. 1908

At Harrison River rapids the water was in flood the whole fishing season.
The total number of eggs in hatchery was :—

Sockeye salmon....	13,767,000
Cohoe salmon..	660,000
Spring salmon...	1,578,000
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	16,005,000
Less bad eggs...	1,280,400
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Number of fry....	14,724,600
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Four million of the ova were from Pemberton.

The liberation of the fry was not concluded until the early part of May, being five to six weeks later than usual, on account of the low temperatures of the water. They were in splendid condition.

During the season we have built the hull of a new launch out of the hatchery. She has just returned by her own motive power from New Westminster where she had her engines installed.

The new boat should prove a great help in the work here and also in maintaining communication with Pemberton hatchery. This summer the hatchery and other buildings have been given another coat of paint, and the troughs, buckets, tray, &c., have been lacquered and put in shape for coming season.

I am, sir,

Your obedient servant,

THOS. ROBINSON,

Officer-in-Charge.

3. PEMBERTON HATCHERY.

LILLOET, B.C., June 18, 1907.

Professor E. E. PRINCE,
Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit the following report on this hatchery for the past season.

The run of sockeye salmon during the fall of 1906—though not as large as that of the preceding year—was very satisfactory, and, but for an exceptionally high freshet which destroyed four of the six fences during spawn-taking, the number of eggs secured would have been in excess of 1905. As it was, however, twenty-one and a half millions of sockeye ova were placed in the hatchery. Eight millions of which were later transferred in the eyed stage to the Harrison lake and Fraser river hatcheries.

As a result of the damage to the fences other means of capturing the parent fish had to be resorted to;—seines and gill nets;—and in consequence the loss in ova was higher than it would otherwise have been, though it should also be borne in mind that my loss includes eggs picked here from the ova shipped to the other hatcheries.

Incubation was greatly retarded by the severe winter ; some of the later spawned ova taking 200 days to hatch.

The system of allowing the fry to depart when they felt inclined, which proved successful the previous season was again followed and the results of the season's operations show all output of ten and a half millions of sockeye fry. Efforts were also made to take spring salmon ova at the Tenas rapids, twenty miles from the

SESSIONAL PAPER No. 22

hatchery, but only 150,000 eggs were taken from which 120,000 fry were released. Two hundred thousand Cohoe salmon fry were also liberated, making the total output of sockeye, spring and coho 10,820,000.

Last winter when the water in the Birkenhead river was low, a permanent site for a fence was levelled with rock and crib abutments built to protect the banks; the hatchery clearing was also enlarged to the extent of about six acres, and forty hatching troughs were built for the outside hatchery, the fitting up of which is at present being proceeded with.

When the improvements at present under way are finished, this establishment will be very complete and will have a capacity equal to that of Harrison lake hatchery.

The prospects for the coming season are good and I expect to secure at least twenty-five millions.

In conclusion, I feel it incumbent to report that the staff has rendered every assistance, and the Indians show an increasing desire to aid the work of the hatchery.

I am, sir,

Your obedient servant,

ALEXANDER ROBERTSON.

4. GRANITE CREEK HATCHERY.

KNALT, B.C., August 8, 1907.

Professor E. E. PRINCE,

Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit the following reports on the operation of this hatchery during the past season.

There were three distinct runs of sockeye salmon to the Shuswap lake districts last season.

The first run were very large red fish.

The second small; colour, olive green on back to white on belly; clouded with grey composed of minute black specks. No trace of red in either skin or flesh. Females when spawned weighed 4½ lbs.; males, 6 lbs. 2 oz.

The third run was of very small bright red sockeye.

Eggs of the first run went 8,150 to the Imperial quart measure.

Eggs of the second run 9,265 to the quart.

The first run arrived at Scotch creek on August 17 and terminated there on September 14. At Anesty river, 47 miles beyond Scotch creek, they arrived six days later, on August 23; the last entering Anesty river on September 19 at Granite creek, 65 miles beyond Scotch creek. The first arrived on September 3, the last of the first run entering there on September 15.

On October 16, after a lapse of 32 days, the second run of sockeye arrived at Scotch creek, the last fish entering on October 31.

This second run also terminated at Granite creek on October 31, but had arrived there on October 13.

On November 2, the first of the small, bright red sockeye of the third run arrived at Granite creek, after a lapse of 48 days, since the termination of the first red run.

The intermediate, second or green run had never been seen in Granite creek before; and four years previous no sockeye of any strain entered Granite creek to spawn, it only having been visited by sockeye during the big fourth yearly runs.

Neither had there been a second run at Scotch creek for four years before; but in that year ova from similarly coloured sockeye taken at Morris creek on the Harrison, had been hatched here and the fry liberated at Granite creek.

7-8 EDWARD VII., A. 1908

It is not possible to give dates pertaining to the runs at Adams river, as they overlap, and occasional females were still straggling in when the fence had to be taken out on account of freezing, and there being no males.

This fence at Adam's river was only across a smaller channel of that large swift stream down which large trees are carried at short intervals by the current.

Neither can date be given when the last salmon entered Granite creek, as this spring the remains of two were found that had entered the trap under the ice. They however were probably cohoes, which species had been entering since October 10.

The differences between the three runs of sockeye at Granite creek were very distinct.

Between the two red runs, 48 days apart, the difference in size was very great. The small fish of the third run were a brighter red than the first.

Three years before, at Scotch creek, this order had been reversed, when ten days after the run of small red sockeye, a number of very large plum-coloured sockeye entered the trap:—

The quantity of salmon ova, taken was 7,558,000, as follows:—

Scotch creek, 1st run.	4,471,000
Scotch creek, 2nd run.	233,000
Anesty river.	1,539 000
Adams river	592,000
Granite creek, 1st run	102,000
Granite creek, 2nd run	181,000
Granite creek, 3rd run	75,000

Total sockeye.	7,193,000
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Cohoos—

Granite creek.	128,000
Adams river.	237,000

Total cohoes	365,000
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One hundred thousand dead salmon eggs were picked out, reducing the number of salmon fry to 6,858,000, which were liberated under the ice at Granite creek.

On August 23 of this year, 5,000 Salmo-Kamloops were released in Skimekin creek, six miles from the hatchery, and of which we hope to make a station for supplying trout ova. It had been abundantly stocked from Granite creek before, but a subterranean channel had opened where the creek empties into Skimekin lake, draining it dry, and leaving the fish stranded. This passage is again blocked and Skimekin lake now restocked, is higher than it has been for many years.

The new steamer built at Kamloops this summer for the hatchery does admirably and will enable us to venture through worse storms than we could before.

We also have the lumber drying to provide new and comfortable accommodation for the staff.

I am, sir,

Your obedient servant,

D. S. MITCHELL.

5. LAKELSE LAKE, SKEENA RIVER HATCHERY.

Prof. E. E. PRINCE,

Dominion Commissioner of Fisheries,

Ottawa.

SIR,—I beg to submit herewith my fifth annual report of operations carried on at the Skeena river hatchery for the season of 1906 and 1907. I arrived at the hatchery

SESSIONAL PAPER No. 22

on July 17, after a pleasant and somewhat easy trip in comparison to what we have had other seasons. Messrs. Pretty, Williams and S. Whitwell accompanied me.

Two days after we arrived, Messrs. Pretty, S. Whitwell and myself left the hatchery and prospected all the rivers and small streams emptying into Lakelse lake. We found a good many sockeyes at Sockeye river, and also at the Schalbuckhand river, a small river where the quantity of fish previous to this last season has been too insignificant to bother with, but I was agreeably surprised to find a great many fish at the mouth of that stream, and I decided at once to place fences and a trap in there to find out its value as a place suitable to collect ova; and on July 27 we had all the necessary fences and pens in position.

In July we were honoured by your visit and that of Inspector Williams, and the next day the party visited the spawning grounds at Sockeye and Schalbuckhand river, where there was about fifty sockeyes in the new pens and at that early date several of those were ready to spawn.

On August 6 we commenced our first spawning, and on that day we got 232,000 sockeye eggs, and continued collecting ova from the new spawning grounds until we had obtained 4,276,000, filling the hatchery to its utmost capacity, which was accomplished on August 30, being twenty-one days earlier than any previous season.

All the eggs collected this past season were obtained at Schalbuckhand river, with the exception of about a quarter of a million which we got from Sockeye river, and I think without a doubt that we had two distinct runs of sockeyes in Lakelse lake the past season as most of the fish at Sockeye river were very hard and unripe at the end of August, whereas the fish at the Schalbuckhand river were in splendid condition all through the month of August.

We then took out all our fences and traps and stacked them away ready for next season's work.

On August 17, Mr. Smith arrived to survey the hatchery site, which he did, also a few acres at the mouth of the Sockeye and Schalbuckhand rivers, which is necessary for the department to have on account of so many parties taking up land in that vicinity. Mr. Smith completed his work and left on the 22nd.

We also had a very large run of coho the past season; the first ones were seen on September 7.

From the end of August until the end of November we had a very wet season, but nothing to do and no serious damage.

On October 24, several steel heads were seen, of which we caught two for the house. The first snowfall was on November 9, and we had continued falls, all through the winter, when on February 7, 1907, we had 51 inches on the level.

The first hard frost was on December 4 and 5, which froze most of the rivers and lakes up solid, and when we left in April 18 there was still 2 feet of ice on Lakelse lake. The past winter was rather a severe one, the thermometer falling down to 20 below zero on February 1, and for nineteen days previous from zero to 8 degrees below, but notwithstanding the long cold winter we had all the water we required for hatchery purposes.

The first shipment of ova commenced hatching on October 27, 31 days earlier than the previous season, and on February 26, every egg in the hatchery was hatched.

The ova all through the season was in splendid condition, so much so that the total amount of bad eggs picked out was only 150,250 out of 4,276,000 collected, and April 16 and 17 we liberated 4,125,750 ova of sockeye and 147 of coho, most of them free swimming fish.

Attached is a list of the dates on which the ova were collected, when eyed, when hatched, and when liberated, and I am very pleased to say that the past season has been the most successful one that we have ever had at the Lakelse hatchery up to the present time.

In conclusion I may say that there may have to be a small expenditure the coming season in connection with the dam, and also for a new canoe, which is badly needed, as the one we have at present is unsafe.

7-8 EDWARD VII., A. 1908

The prospects for the coming season are very bright and there is very little doubt but that we shall be able to fill the hatchery again to its fullest capacity.

I am pleased to say that I have been well supported by the staff and that all hands have done their utmost to make the season's work a very successful one.

I am, sir,

Your obedient servant,

THOS. WHITWELL.

Officer-in-Charge.

Skeena River Hatchery, B.C.

RECORDS of Sockeye Ova and Fry at Lakelse Hatchery, 1906 and 1907.

Date.	Ova Collected.	When Eyed.	Commenced Hatching.	When Liberated.
1906.				
August 6.....	232,000	September 5 ...	October 27....	} April 16 and 17, 1907.
" 7.	240,000	" 5....	" 29....	
" 9.....	200,000	" 8....	November 2....	
" 10.....	128,000	" 8 ...	" 8....	
" 13.....	584,000	" 13....	" 12....	
" 15.....	344,000	" 15....	" 17 ...	
" 17.....	72,000	" 17....	" 23....	
" 19.....	184,000	" 18....	" 26....	
" 22.....	272,000	" 21....	" 30 ...	
" 24.....	448,000	" 25....	December 2....	
" 25.....	368,000	" 28....	" 5....	
" 27.....	504,000	" 28....	" 17....	
" 28.....	400,000	October 1 ...	" 21....	
1907.				
" 30.....	300,000	" 4....	January 1....	}

Number of eggs put in hatchery..	4,276,000
Number of bad eggs picked out..	150,250
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Fry liberated..	4,125,750

6. RIVER'S INLET HATCHERY.

RIVERS INLET, B.C., August 14, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit to you herewith a report of the operations of this hatchery for the season of 1906-7.

In preparation for taking the quantity of eggs necessary for stocking the hatchery three creeks were fenced, viz., Quap, Ashulum and Zenessee. The current, however, at Ashulum was too strong for a fence to be held there. It rises so quickly and the rise brings down so much heavy timber that no fence could hold, and the one put in, though very strong, was completely broken up in the first freshet. We had, there-

SESSIONAL PAPER No. 22

fore, to depend upon the two remaining fences for the eggs, and in both the salmon were plentiful. Owing, however, to the high water in both creeks many salmon got past the fences.

The first ova were taken in the Quap trap on September 5, when 80,000 were secured, the balance of the month yielding about one million more. At Zenessee the salmon appear to be much later coming into condition, and though several schools were in the lake at the mouth of the creek, no eggs were secured until October 4, when 230,000 were taken. From this date on both creeks yielded fairly well to October 26, and 8,300,000 eggs had been brought to the hatchery, when the weather became so bad that both fences were washed out. As the lake was very high they could not then be replaced, and most of the salmon passed up the creeks, and operations, so far as the creeks were concerned, had to be abandoned for the season. The fence at Quap was twice partially washed out during the month. The one at Zenessee, owing to the high water in the lake, was submerged for some days, allowing a considerable number of fish to pass up the creek.

The seine was tried on the Wannock river, but with poor results, for only 140,000 eggs were secured, the fish being either too hard or mostly spent.

During the winter we were very much troubled by the cold weather that prevailed during the month of January and the early part of February. It was much colder than usual in this part of the country, and was not anticipated. In the creek from which the water is taken for the hatchery, large quantities of anchor ice formed, causing lots of mush ice to come through the pipes to the hatchery, and at one time some difficulty was experienced in keeping them clear. Two small dams had to be put in the creek to keep the water high enough over the intakes to prevent them freezing.

The condition of the eggs generally was fairly good, but they were very slow in coming to maturity. The first young fish showed on December 17, 1906, 88 days. From that date, however, when the cold weather commenced, they appeared to lie dormant, and for weeks no visible progress could be noticed. It was not until the end of April that all the eggs were hatched. The first of the fry were put out into the lake on March 12, and at various intervals until May 14, when the last of them were transferred to the lake.

The abstract of operations for the season 1906-7, is as follows:—

Eggs received in hatchery, 8,440,000.

Fry put out, 7,577,000; bad eggs and dead fish, 863,000; total, 8,440,000.

This spring a gasoline launch was purchased by the department for the use of the hatchery. The selection of the boat by Mr. Roxburgh was a very good one, and in the high winds we have on the lake, she has proved herself to be a very seaworthy craft, and the engine is giving every satisfaction, enabling the work to be done in less time and at less expense.

A boat-house was built on the Wannock river 30 by 16, in which the launch may be under shelter when not in use. A piece of ground about 30 yards square was protected by cribbing 4 feet by 5 feet high and filled in this spring.

Part of this was planted with potatoes, cabbages and other vegetables, which have done very well considering the new ground.

The potatoes, though not yielding very well, have been quite a saving owing to the high price of this vegetable this summer.

I have the honour to be, sir,

Your obedient servant,

ROBT. C. BUCKNALL,

7. NIMPKISH HATCHERY.

NANAIMO, B.C., April 15, 1907.

Professor EDWARD E. PRINCE,
Commissioner of Fisheries,
Ottawa.

SIR,—I have received the following report from the British Columbia Packers Association of the take and output of their hatchery on the Nimpkish:—

‘We commenced to take eggs on October 15, 1906, and had our trays all full on the 13th, having taken 5,014,000, which is the capacity of the present hatchery.

‘The first fish appeared on December 25, being eighty-one days hatching and taking 985 units. All fish were out by the end of January, and we commenced to put swimming fish into the lake about the middle of March, 1907, the last being put into the lake April 4.

Eggs put into the hatchery.	5,014,000
Bad eggs picked out.	143,500
Dead fry.	500
Fry planted in the lake	4,870,000
Loss	144,000

or less than 3 per cent, which we consider a very creditable showing.

‘Our water supply gave out during the very cold weather, pipe being frozen, but our man in charge managed to keep supply of water until he got the same thawed out and lost no eggs at all by the stoppage of water in the main pipe.’

I am, sir,

Your obedient servant,

EDWARD G. TAYLOR,

Inspector of Fisheries.

8. BERENS RIVER HATCHERY.

SELKIRK, MAN., August 24, 1907.

Professor E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa, Canada.

SIR,—I have the honour to submit herewith my annual report of the operations for and in connection with the Berens river hatchery for the season of 1906 and 1907.

We left here on the steamer *Premier* on September 8 with men and supplies for the Little Saskatchewan river, which is situated about 270 miles distant by boat route, and arrived at our destination on the 9th. The peculiarity of this fishing ground is that the main run of whitefish takes place between the middle of September and October 5, and parent fish taken at that time must be held from four to six weeks before spawning; but in order to get the parent fish they must be taken at this time.

On the 14th we had our first lift, securing about 200 fish. On the 15th, 1,365. This catch was evidently increased by heavy storm on the lake at the time; but from this time on our daily catch was about 1,500 fish each lift.

On the 20th, having completed everything, we left for Berens river, leaving Mr. Young in charge with sufficient men to handle the nets. During this time we had put up a house, 18 by 28, making very comfortable quarters for the men to live in; also a shed 14 by 18, in which to handle spawn during the absence of the steamer. We

SESSIONAL PAPER No. 22

made crates sufficient to hold about 30,000 parent fish; a dock about 300 feet long, to work the crates from; also a dock for the steamer. At this time we had 11,000 fish in the crates.

Arriving at Berens river on the 20th, we immediately began locating places for the nets in that vicinity. We set one in Berens river (largely to know if whitefish ran up the river) and a third one we set in Pigeon bay, twelve miles distant from Berens river. To handle these two nets it was necessary to have a small steamer, and the *Spray* was chartered for that purpose. Crates were built at this point to hold about 10,000 fish. The fishing was continued at these three points until October 17, and having all crates filled at the Little Saskatchewan, we put 800 parent fish on the *Premier*, that left for Berens river, where they arrived in fine shape, and were put in crates there.

On the 21st, the first consignment of eggs—7,900,000 and 1,300 parent fish—were brought over by the *Premier* from the Little Saskatchewan and safely placed in the hatchery. The *Premier* again arrived on the 28th with 25,000,000 eggs and 1,600 parent fish. On November 21, the third lot of eggs, consisting of 28,750,000, was safely landed in the hatchery.

On November 10, having filled all the crates we had for Selkirk hatchery and sufficient eggs in cans to fill Berens River hatchery, we turned the balance of the fish, which consisted of several thousand, out of the crates and put everything in shape for winter, and left with the entire crew for Berens river, where every jar was filled with eggs to its full capacity. The *Premier* left for Selkirk on the morning of the 11th, arriving there on the 12th. During this time we had taken from the fish brought over from the Little Saskatchewan, and from the two nets at Berens river about 37,000,000 eggs, making in all a total of 110,000,000 eggs placed in Berens River hatchery. I might add that our arrival in Selkirk was just in time, as we had great difficulty in getting the boat into winter quarters, winter having set in the second day after our arrival.

The hatchery ran along very smoothly without any incident worthy of note, and on June 6 we succeeded in hatching the last of 92,000,000 fine, strong fry, which we put into the river at the hatchery.

During the winter 500 cords of wood were taken out with the aid of the Indians, for future use at this point.

I have the honour to be, sir,

Your obedient servant,

F. W. HOOKER,

Officer-in-Charge, Selkirk, Man.

9. SELKIRK HATCHERY.

SELKIRK, MAN., August 15, 1907.

Professor E. E. PRINCE,

Dominion Commissioner of Fisheries.

Ottawa.

SIR,—In submitting my annual report of the operations in connection with the Selkirk hatchery for the season of 1906 and 1907, would say that my report of the fishing operations for the Berens River hatchery, conducted at the Little Saskatchewan river, would apply equally to Selkirk, as the eggs for this hatchery were obtained during the same operations.

These eggs were packed during the first week of November and safely placed in the hatchery on November 12—just two days ahead of our winter—when the Red river froze over and closed navigation.

7-8 EDWARD VII., A. 1908

Our great difficulty in regard to this hatchery is to get the eggs in the hatchery before winter sets in and stops all means of transportation until ice is formed strong enough to carry.

After a very good winter's operation at the hatchery, we succeeded in hatching out of the 62,500,000 eggs placed in the hatchery, about 45,000,000 fine, strong fry, the last of which was put in the river, at the hatchery on May 12.

I have the honour to be, sir,
Your obedient servant,
F. W. HOOKER,
Officer-in-Charge.

10. SANDWICH HATCHERY.

SANDWICH, ONT., July 29, 1907.

Professor E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—In accordance with the regulations of the Fishery Department I herewith submit to you my annual report on the fish cultural operations conducted in the Sandwich hatchery for the past season.

From the 73,500,000 eggs collected during the whitefish spawning season and placed in the hatchery 61,500,000 young fry were hatched, which were distributed in a healthy condition in the following waters :—

Point Edward, Lake Huron.	3,000,000
Peach Island, Lake St. Clair.	4,000,000
Fighting Islands, Detroit river.	4,000,000
In bay below Fighting Island.	4,000,000
Turkey Island, Detroit river.	4,000,000
Stony Island, Detroit river.	4,000,000
Bois Blanc Island, Detroit river.	7,000,000
In lake below Bois Blanc Island.	3,000,000
Pigeon bay, Lake Erie.	3,000,000
Colchester, Lake Erie.	3,000,000
Kingsville, Lake Erie.	1,000,000
Leamington, Lake Erie.	1,000,000
Rondeau, Lake Erie.	1,000,000
Port Stanley, Lake Erie.	1,000,000
Hamilton, Lake Ontario.	1,000,000
Burlington bay, Hamilton.	500,000
Toronto, Lake Ontario.	1,000,000
Niagara, Lake Ontario.	1,000,000
Belleville, Bay of Quinté.	1,000,000
In river at hatchery.	14,000,000
Total.	61,500,000

COLLECTING PICKEREL EGGS.

After the close of the whitefish season the jars were refilled with 69,000,000 pick-erel eggs secured from the pound nets of Lake Huron from which 41,500,000 young fry were hatched and disposed of as follows :—

SESSIONAL PAPER No. 22

Point Edward, Lake Huron.	5,000,000
Peach Island, Lake St. Clair.	4,000,000
Fighting Island, Detroit river.	5,000,000
Bois Blanc Island, Detroit river.	5,000,000
Hamilton, Lake Ontario.	2,000,000
Yamaska river, Quebec.	1,500,000
In river at hatchery.	19,000,000
Total.	41,500,000

The above fry were all distributed in a splendid condition.

I have the honour to be, sir,

Your obedient servant,

WM. PARKER.

11. OTTAWA HATCHERY.

OTTAWA, July 25, 1907.

Prof. E. E. PRINCE,

Dominion Commissioner of Fisheries,
Ottawa.

SIR,—Herewith I beg to submit my annual report of the operations carried on at the Ottawa hatchery during the past season :—

On November 16 I received from Wm. Armstrong about 1,000,000 salmon trout eggs.

On February 13 I received from Wm. Parker, of the Sandwich hatchery, about 600,000 eyed whitefish eggs.

On March 22 I received through A. C. Finlayson about 70,000 Atlantic salmon.

On March 23 I received from Bark River hatchery, through A. C. Finlayson, about 185,000 brook trout.

On March 24 I received from Isaac Sheasgreen about 200,000 Atlantic salmon.

All the above eggs were laid down in the incubating troughs and jars in the latter part of May and the beginning of June, hatched out strong and healthy.

The young fry were all deposited very successfully in the under-mentioned waters by U. Grignon, J. B. Rochon and S. J. Walker.

Distribution of Salmon Trout.

Kosbabogamog lake.	20,000
Norwood.	15,000
Lake Moscou.	30,000
Lady and Bark lakes.	25,000
Crooked lake.	25,000
Lac de la Truite.	20,000
Green lake.	20,000
Lac Le Cœur.	15,000
Hawk lake.	25,000
Lake Veronica.	25,000
Lake Malone.	15,000
Moose lake.	20,000
Lac St. Esprit.	25,000
Lake Seven.	25,000
Lake Gregoire.	25,000
St. Sixte lake.	20,000

7-8 EDWARD VII., A. 1908

Charleston lake.. . . .	30,000
Pike lake.. . . .	36,000
Lac l'Achigan.. . . .	30,000
Lac a Ricard.. . . .	25,000
Lac Lunette.. . . .	25,000
Lac Rouge.. . . .	15,000
Lac Long.. . . .	20,000
Lac Lemmer.. . . .	20,000
Ruisseau des Resources.. . . .	36,000
Racquette.. . . .	36,000
Anne lake.. . . .	30,000
Meaches lake.. . . .	48,000
Clarendon lake.. . . .	30,000
Baron lake.. . . .	30,000
Sharbot lake.. . . .	48,000
Rideau lake.. . . .	48,000*
Christie's lake.. . . .	20,000

Total distribution of salmon trout.. . . . 877,000

Distribution of Whitefish.

Meaches lake.. . . .	125,000
Shawinigan lake.. . . .	150,000
Lake Deschenes.. . . .	250,000

Total distribution of whitefish.. . . . 525,000

Distribution of Speckled Trout.

Spring Dale	10,000
Norwood.. . . .	5,000
Ploto creek.. . . .	5,000
Margorie lake.. . . .	5,000
Lake Malone	5,000
Campeau Fish and Game Club	5,000
Clear lake.. . . .	5,000
Chelsea pond	5,000
Mastigouche	10,000

55,000

In addition to this we also shipped to Alph. Robert, of the Mont Tremblant hatchery, 125,000 eyed brook trout eggs, making a total distribution of 180,000 brook trout.

Distribution of Atlantic Salmon.

Moose lake.. . . .	8,000
St. Sixte.. . . .	8,000
Campeau Fish and Game Club lakes	8,000
Chelsea pond	8,000
Green lake	8,000
Meaches lake.. . . .	8,000
Lac Rouge	8,000
Charleston lake.. . . .	15,000
Lake Bernard	8,000
Christie's lake.. . . .	16,000

95,000

SESSIONAL PAPER No. 22

In addition to the above, 125,000 eyed eggs were shipped to C. B. Sword, New Westminster, B.C., and 42,000 eyed eggs distributed among the hatcheries in the east.

Recapitulation.

Whitefish	525,000
Speckled trout	55,000
Salmon trout	887,000
Atlantic salmon	95,000
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Total distribution	1,552,000
Eyed eggs shipped to other hatcheries.....	292,000
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Total	1,844,000

I might add that during the year, 15,000 persons visited the hatchery. The incubating troughs, &c., have been revarnished and everything is in readiness for the season's operations.

I have the honour to be, sir,

Your obedient servant,

JOHN WALKER.

12. NEWCASTLE HATCHERY.

NEWCASTLE, ONT., July 29, 1907.

Professor E. E. PRINCE,
Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour herewith to submit my report on the operations of this hatchery during the past year.

According to your instructions, I proceeded to Wiarton with my usual assistance on the third day of October last, to procure the necessary supply of salmon trout ova for this and other hatcheries.

After having our stakes driven, we had our nets all in by October 17, and by the end of the month the fish were on their spawning grounds, and we had procured over two hundred trays of eggs, which I placed in the Newcastle hatchery. I may remark that last year the season was much earlier than for a number of former years.

By November 15 I handed over to Mr. Walker, of the Ottawa hatchery, 1,000,000 eggs, and at the same time 800,000 for Mont Tremblant. I succeeded by the end of the month in procuring all the eggs we required and had about 2,000,000 to lay down in our hatchery at Newcastle in first-class condition. In February last, according to your instructions, I shipped thirty trays of eyed eggs to the Magog hatchery.

I regret to report that on February 14 last I had the misfortune to lose my assistant, Mr. John Kenefick, who was called away by death on that date. He had been in the employ of the department for about thirty years, and was a first-class man. I am pleased to say that Mr. Alex. McLeod, who has been with the department for about thirteen years, took his place, and proves himself a first-class man in every respect.

Last season's operations were very successful, and the following schedule will show the number of yearlings and fry distributed in the different localities.

YEARLING SALMON TROUT.

Charlston lake, at Athens.. . . .	700
Simcoe lake, at Barrie.. . . .	800
Bay Quinte, at Belleville.. . . .	800
Salmon lake, at St. Ola.. . . .	800
Lake Ontario, at Consecon.. . . .	700
“ Picton.. . . .	700
Lake Huron, at Goderich.. . . .	500
Georgian Bay, at Wiarton.. . . .	200
Total.. . . .	5,200

SALMON TROUT FRY.

Lake Ontario, at Consecon.. . . .	150,000
“ Picton.. . . .	100,000
“ Kingston.. . . .	100,000
“ Toronto.. . . .	100,000
Lake Huron, at Goderich.. . . .	200,000
“ Southampton.. . . .	200,000
Lake Simcoe, at Barrie.. . . .	100,000
Lake Couchiching, at Orillia.. . . .	100,000
Georgian bay, at Wiarton.. . . .	200,000
“ Collingwood.. . . .	100,000
Charlston lake, at Athens.. . . .	100,000
Rideau lake, at Portland.. . . .	50,000
“ Delta.. . . .	50,000
Lakes at St. Joseph.. . . .	50,000
“ Clifford.. . . .	50,000
“ Parkham.. . . .	50,000
Lake Ontario, Newcastle.. . . .	100,000
Total.. . . .	1,800,000

I beg also to report than in June last eighteen small-mouthed parent black bass were delivered by Mr. J. K. McCargar, of Belleville, and placed in our ponds. These fish have done exceedingly well, and the following distribution of three months' old bass has been successfully made:—

Owen Sound bay, Owen Sound.. . . .	400
Pigeon and Deer lakes, Muskoka.. . . .	400
Temperance lake, Athens.. . . .	400
Pine and Grass lakes, Haliburton.. . . .	400
Rideau lakes, Leeds.. . . .	400
Total.. . . .	2,000

I wish to add that all fry and fingerlings from this hatchery were deposited in the different waters in the best of condition. Our hatchery is also in first-class repair and our work up to date. Our nets will require some overhauling, and will answer with very little expense for another year.

We are holding a number of young salmon trout in our tanks to raise to fingerlings, but the season is yet too early to predict the result.

I have the honour to be, sir,

Your obedient servant,

WM. ARMSTRONG.

13. MAGOG HATCHERY.

(Translation.)

MAGOG, July 27, 1907.

Professor E. E. PRINCE, Esq.,
 Commissioner of Fisheries,
 Ottawa.

SIR,—In transmitting you my annual report on the operations of this hatchery for the season of 1906-7, I take pleasure in informing you that the eggs collected in Lake Memphremagog in October and November, 1906, numbered 900,000, and have all hatched successfully; fry were distributed in very good condition, as follows:—

I received, in good condition, 75,000 speckled trout from the Lake Lister ponds.

I received in the fall of 1906, 300,000 salmon eggs from St. John, N.B.

I received in the fall of 1906, 165,000 salmon trout eggs from Newcastle, Ont.

I received in the fall of 1906, 40,000 speckled trout eggs from St. Alexis, and delivered to them 50,000 salmon eggs.

MAGOG FISH HATCHERY, P.Q.

(Distributing of fry in May and June, 1907.)

Atlantic Salmon.

Spider lakes (3)	10,000
Lake Dubé	10,000
Lake Oxford	5,000
Lake Memphremagog	30,000
Lake Brome	10,000
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	65,000

Salmon Trout.

Lakes Spider (3)	10,000
Lake St. François	25,000
Lake Dubé	20,000
Lake Silver	15,000
Lake Oxford	5,000
Lake Memphremagog	25,000
	<hr/>
	100,000

Grey Trout.

Lake Seakwaninipus	40,000
Lake Spider	35,000
River Pointu	25,000
Lake Roche	40,000
Lake Maheux	25,000
Lake Denyson	45,000
Rivière Noire	40,000
Lake Joseph	40,000
Lake Brome	75,000
Lake Massawippi	60,000
Lake Key	30,000
Lake Memphremagog	150,000
Lake Oxford	10,000
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	615,000

Speckled Trout.

Lake Cliff..	10,000
Springs, brooks and ponds..	15,000
Allward lake..	25,000
Lake St. Modeste..	25,000
East lake..	15,000
Lake Silver..	15,000
	<hr/>
	105,000

In addition to this distribution, 225,000 grey trout fry, 50,000 Atlantic salmon fry and 50,000 salmon trout fry were conveyed to the Lake Lister ponds.

I also sent 105,000 Atlantic salmon eggs to New Zealand and 50,000 to St. Alexis hatchery.

RECAPITULATION.

Atlantic salmon—

Lake Lister..	50,000
Other lakes..	65,000
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	115,000

Grey trout—

Different lakes, 615,000; Lake Lister, 225,000.. . . . 840,000

Salmon trout—

Lake Lister, 50,000; other lakes, 100,000.. . . . 150,000

Speckled trout.. 105,000

1,210,000

The total distribution of fry from the Magog hatchery for the season of 1906-7, now ended, has been 1,210,000, and eggs shipped to other hatcheries 155,000.

The fry was all distributed, this season, in excellent condition.

I have the honour to be, sir, .

Your obedient servant,

(Sgd) A. L. DESEVE,

Officer-in-Charge of the Magog Fish Hatchery.

14. MOUNT TREMBLANT HATCHERY, P.Q.

MOUNT TREMBLANT, P.Q., August 14, 1907.

Prof. E. E. PRINCE,
Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit herewith a report in detail of the operations conducted at the Lac Tremblant hatchery for the season of 1906-7:—

The following eggs were received in good condition at this hatchery:—

Salmon trout eggs..	640,000
Atlantic salmon eggs..	2,200
Speckled trout eggs..	7,500

SESSIONAL PAPER No. 22

The hatching of the eggs was very slow, and lasted from April 1 to June 10; but the output was very satisfactory, as the following figures show:—

Salmon trout..	633,000
Atlantic salmon..	2,000
Speckled trout..	7,000
Total..	642,000

The fry distributed were in splendid condition, in the following waters:—

Speckled trout.—Lac Cornu, at Nantel; Lac du Sauvage, at St. Faustin; Lac La Truite, at Ste. Agathe; Lac Lafleur, at Val Morin; Lac Michaudville, at Labelle; Lac St. Antoine, at Nominique; Lac Bois-Franc, near Lac Tremblant.

Salmon trout.—Lac Marois, at Shawbridge; Lac Masson; Lac Noir, at Ste. Marguerite; Lac Charlebois; Lac aux Ecorces, at Arundel; Lac Tremblant.

The Atlantic salmon fry were all distributed in Lac Tremblant.

Some needed repairs were made with regard to the water supply last fall, and the hatchery is now in a good state of repair and ready for next season's operations.

I have the honour to be, sir,

Your obedient servant,

ALPHONSE ROBERT.

15. BALDWIN'S MILLS REARING PONDS, P.Q.

BALDWIN'S MILLS, QUE.,

July 27, 1907.

Prof. E. E. PRINCE,

Dominion Commissioner of Fisheries,
Ottawa.

SIR,—In accordance with your instructions, I have the honour to submit my report for the operations carried out in this hatchery the past year, commencing September 22, 1906.

From the fingerlings on hand last fall, I delivered as follows:—

GREY TROUT.

Fall, 1906—

Massawippi lake, fingerlings..	15,000
Brome lake, fingerlings..	2,000
Magog lake, fingerlings..	40,000

Spring, 1907—

Baldwin's pond, or Barnston lake, yearlings..	10,000
Massawippi lake, yearlings..	750
Magog lake, yearlings..	750

ATLANTIC SALMON.

Fall, 1906—

Ottawa, fingerlings..	500
Wapizagonk lake, fingerlings..	500
Brome lake, fingerlings..	11,000
Massawippi lake, fingerlings..	25,000
Magog lake, fingerlings..	32,000

7-8 EDWARD VII., A. 1908

Spring, 1907—

Magog lake, yearlings.	1,500
Massawippi lake, yearlings.	1,500

SALMON TROUT.

Spring, 1907—

Magog lake, yearlings.	6,500
Massawippi lake, yearlings.	5,000

SPECKLED TROUT.

I am pleased to state that I took 215,000 eggs from the brook or speckled trout in retaining pond, from which were hatched 200,000 fry, and I distributed them in a healthy and thriving condition to the following places:—

Spring, 1907—

Magog hatchery.	75,000
Watopekak lake.	5,000
The balance retained in the rearing tanks here.	

I have the honour to acknowledge the receipt of the following fry from the Magog hatchery:—

Salmon.	50,000
Salmon trout.	50,000
Grey trout.	225,000

I have caused repairs to be made on the old flume as per your instructions by letter June 25.

The structure is some 800 feet in length, and varies in height from the ground 2 to 6 feet according to location. It is very shaky owing to the action of frost in winter, and I would suggest that proper piping be laid before another season.

The benefits resulting from the planting of fingerling fish in the waters of this locality are yearly becoming more apparent; especially is this the case with regard to Baldwin's pond or Barnston lake, and Lake Averil, where the fishing this year, both in quality and quantity, has been better than ever before.

It gives me much pleasure to see the public interest manifested in this hatchery. Pleasure parties from the health resort on the shores of this lake are daily visitors whose presence demand that the surroundings be kept neat and clean and as far as in my power I have kept them so.

I am, sir,

Your obedient servant,

W. G. BELKNAP,

Officer-in-Charge.

16. TADOUSAC HATCHERY.

TADOUSAC, July 29, 1907.

Professor E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit my annual report of the operations carried on at the Tadousac hatchery during the past year. From the salmon eggs collected in November last, 1906, we have distributed this season 3,860,000 salmon fry, as follows:—

SESSIONAL PAPER No. 22

Roberval hatchery (eggs)	500,000
Ste. Marguerite hatchery (eyed eggs)	500,000
A Mars river (Ha Ha Bay)	150,000
St. John river	150,000
Little Saguenay river	150,000
Murray river	200,000
Jacques Cartier river	100,000
Stadacona Club	10,000
Baude river (by land)	800,000
Chisholm river (by land)	800,000
Maurice lakes	500,000
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	3,860,000

The distribution in the upper Saguenay was, as in former years, carried out with the assistance of a tug.

I may add that the work this year was rendered more difficult than usual on account of the poor condition of the roads at that season of the year.

As usual we set our salmon fisheries for the capture of the parent fish early in May, but this year they were late coming up, the first two salmon only being caught on May 30. We have, however, secured for building purposes 570 fine salmon, 309 are females and 261 are males. At the time of the spawning I expect to get at least 3,000,000 of eggs, as the females are all of large size. In addition to the above 351 salmon of smaller size were liberated at the door of the fishery station, and 103 damaged fish sent to the hospital, Hotel Dieu, St. Valier, of Chicoutimi.

Since I have had charge of the Tadousac hatchery, it is the first season that I have seen so many injured salmon in our nets, and by inquiring I find that the same thing has occurred in the other fisheries, and I would be glad to have some explanation concerning it.

Our St. Marguerite hatchery has again this season proved a success; the eyed eggs, packed in wet moss, were safely carried in on spring sleds in the first days of April. The eggs hatched out well and the fry resulting were planted in June in the Portage river, which supplies the hatchery with water and runs to the Ste. Marguerite river, a distance of ten acres.

The water of the Portage river is remarkably pure and clean, and very little difficulty is experienced in keeping the eggs perfectly clean while undergoing incubation.

I am pleased to report that our work of sending salmon fry and eggs to the Roberval hatchery since 1899 has undoubtedly shown good results. From different sources I know that there is now a great quantity of sea salmon taken in the splendid rivers of the Lake St. John and in the lake itself. When in the Lake St. John, the salmon has a great choice of beautiful rivers, such as Belle river, Mitabetchouan river, Suiatchouan river, Salmon river, Ashuapmouchouan river, the Mistassini river, the Grand and small Peribonca rivers, and many of smaller size.

The residents of this locality as well as the many visitors are loud in their praises of the work that is being done by this hatchery in the interests of the salmon fisheries, and the government should be congratulated on the success attending its fish breeding operations generally.

I have the honour to be, sir,

Your obedient servant,

L. N. CATELLIER,

Officer-in-Charge.

7-8 EDWARD VII., A. 1908

17. GASPE HATCHERY.

GASPÉ, July 31, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report upon the work of the Gaspé hatchery during the past season.

On November 4 last, I went to St. John, N.B., for my quota of salmon eggs, and returned on the 11th, Sunday, and next day I got the eggs laid down in the troughs in first class order, with the exception of one case in which there was some trays with quite a few dead eggs; but I have never had as little loss during the incubation.

The fry hatched out very late this spring, I suppose owing to the extreme cold weather lasting so long, but they developed very rapidly after they hatched. I started planting them on July 8, but owing to the very high state of the rivers and the continued rain and storms, I only got finished on the 31st, and I am pleased to say never got fry out in better order, no doubt due to cool weather we have continually had. An officer of the hatchery was in attendance at one of the rivers each day, and the fry were planted as follows:—

River St. John (Douglastown)	355,000
“ York	350,000
“ Dartmouth	470,000
Total	1,175,000

After the distribution was completed last season I cleaned up the hatchery, painted and varnished all the cans, varnished all the trays and troughs with the varnish furnished last summer. A new chimney was also built last fall, which is a great improvement

A few repairs to the hatchery are necessary, and will be made before the cold weather sets in.

There are also a number of dead trees, killed by the water, in the dam, which I will try and get removed if the water gets low enough, as they are falling and causing a lot of dirt to accumulate.

The trays, troughs, &c., will be cleaned as soon as possible, and everything put in readiness for next season's operations.

I have the honour to be, sir,

Your obedient servant,

R. LINDSAY,

Officer-in-Charge.

18. RESTIGOUCHE HATCHERY.

FLATLANDS, near Campbellton, July 24, 1907.

Professor E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to transmit herewith my annual report upon the operations of the Restigouche hatchery during the past year.

SESSIONAL PAPER No. 22

As previously reported 340 very large fish were captured in the departmental net, and W. G. McBeath's licensed net, last year, for the stocking of the hatchery.

The stripping of the fish and collecting of eggs began on October 18, continuing the work until the first week in November, some 2,300,000 very beautiful eggs were collected, and deposited in fine condition in the hatchery, filling the troughs to almost their full capacity. These eggs were carefully cared for during the winter months, and period of incubation, not more than seven per cent of the eggs and fry being lost.

Distribution of the fry began on June 24, and was carried out in accordance with the following schedule :—

Restigouche river.	600,000
Upsalquitch river.	50,000
Metapedia river and lake.	1,450,000
Lake St. Flavie.	9,000
Held over in tanks by Matamagaw Salmon Club Causapscal.	10,000
Held over in pond and tanks at Flatlands hatchery.	20,000
Total.	<hr/> 2,139,000 <hr/>

The fry held over at hatchery pond and tanks, and fed through the summer will be liberated in the Restigouche river in the autumn.

It has invariably been the custom to plant the larger number of the fry in the Restigouche and Upsalquitch rivers, both of which plainly show the results of the planting, over the Metapedia, but owing to the usual late spring and the great rainfall keeping the rivers in flood, it was found impossible to tow such large quantities of the fry as usual by scow, consequently we were obliged to distribute, and plant the greater number in the Metapedia river, which were conveyed in cans over the Inter-colonial railway.

The retaining pond at hatchery was repaired last autumn by the erection of substantial concrete wall, and necessary piping set in. This pond is now working very satisfactorily.

Capture of Parent Fish.

The Tide Head pond was reconstructed in early spring, and the departmental net and J. McBeath's licensed net, set as early in June as possible, for the capture of parent fish for the pond. The two nets have taken 245 fish up to date, and as soon as a sufficient number are caught, the nets will be taken up. The conditions for catching stock fish have been very unfavourable; the June fish did not enter the river until July, and the river keeping in flood, it was impossible to work the departmental net satisfactorily, or with the usual results.

The department also leased the Dow Sheals licensed net, which was not necessary to set, and in order to catch three or four hundred fish, for the supply of the hatchery, your department have purchased outright, leased, and abolished, five stands which formerly sent a great many fish into the market, so that now there cannot be any fair criticism against the present method of capturing parent fish.

All plant, such as trays, troughs, &c., are being cleaned and revarnished and made ready for the reception of the ova this fall. A few minor repairs are necessary.

I have the honour to be, sir,

Your very obedient servant,

ALEX. MOWAT,
Fishery Officer.

19. ST. JOHN RIVER HATCHERY, N.B.

GRAND FALLS, July 30, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit the following report in connection with the operations carried on at the St. John river hatchery during the past season.

Acting on instructions from the department and a telegram from St. John, my assistant left for the latter place on November 1 of last year. On November 9 he returned with seven cases of 34 trays to each case, making 1,071,000 eggs. These were placed in the troughs in excellent condition. The cases were sent back to St. John, and on the 17th three more cases, containing 458,000, were shipped to us. These were met at McAdam Junction and were also put down in fine condition. This gave us a total of 1,529,000 salmon eggs. I might say that we turned out a splendid lot of young fry. The salmon fry were planted successfully in the following waters:—

Tobique river.	300,000
St. Croix river.	100,000
Salmon river	300,000
St. John river, below falls	250,000
Pond and stream near hatchery.	300,000
Chamecook lake.	80,000
Sent to St. John	35,000
	<hr/>
	1,365,000

In April of this year we received a visit from Mr. Finlayson, Dominion inspector of fish hatcheries.

Repairs.

In the fall of 1906, we had the hatchery repaired at considerable expense. These repairs consisted of the following: Reshingling the entire roof of hatchery, new sills, new floor beams and new floor, new wainscotting, a new main feed tank and new penstock, six new troughs and six new waste troughs. By putting new troughs in place of old whitefish tanks, we have now capacity for from two millions to two and a half millions of eggs.

After the visit from the inspector we received instructions to have all interior fittings put in first-class shape, which has been done, and the hatchery is now in readiness for next season's operations.

I have the honour to be, sir,
Your obedient servant,
CHAS. McCLUSKEY,
Officer-in-Charge.

SESSIONAL PAPER No. 22

20. MIRAMICHI HATCHERY.

SOUTH ESK., N.B., August 31, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit the following report on the operations at this hatchery during the past year.

At the time of forwarding the last annual report, which was dated August 28, 1906, the work of procuring the supply of parent salmon was just beginning. The number required for this hatchery was obtained in about ten days, and then, according to instructions from your department, an additional supply was obtained, the ova procured from these being intended for other hatcheries.

The netting of parent fish was completed on October 8, the total number placed in the retaining pond being 750, consisting of 430 females and 320 males. The collection of ova was commenced on October 23, and completed November 14. The fish were in splendid condition, and produced a total yield of 2,855,000 ova. On November 2 all the troughs in this hatchery were filled, 1,735,000 being placed therein. Previous to this date Mr. F. Burgess, of Windsor, had been notified that his hatchery would be supplied from the retaining pond here. He arrived with cases and trays on November 1, and returned to Windsor on November 7, with 720,000 ova, which he has since reported he placed in his hatchery with very small loss. After this number had been shipped to Windsor, there still remained a surplus of 400,000, which were placed in the hatchery here until instructions were received regarding their disposal. On November 29, according to telegraphed instructions, 200,000 were delivered to Mr. Findlayson, at Newcastle railway station for transfer to Charlottetown. Later on the balance was divided between the Ottawa and Windsor hatcheries.

The ova placed in this hatchery were successfully carried through the hatching period and produced 1,675,000 fry, which were distributed in the following waters:—

Northwest Miramichi.. . . .	650,000
Little Southwest Miramichi.. . . .	500,000
Main Southwest Miramichi.. . . .	200,000
Sevogle river.. . . .	175,000
Millstream.. . . .	50,000
Renous river.. . . .	100,000
Total.. . . .	1,675,000

Distribution was commenced on June 4.

Owing to very high water this season the fry were planted further up the rivers than the previous year. They were all liberated in good condition.

Shortly after the fry were planted, arrangements were made for beginning the work of building the new hatchery, which has been under consideration for some time. It having been decided to erect the new hatchery on the same site, the old building was removed and concrete foundation piers were built. This part of the work was very difficult and slow, as owing to the heavy rainfalls during the month of August the excavations made for the piers were continually filling with water. At the present date the frame of the new building is erected, and the rough boarding, lathing and shingling is being carried on as rapidly as possible. The new hatching troughs and tanks have been ordered from the factory, and the troughs will be thoroughly varnished before placing them in position. Owing to the energetic manner in which the work is being forwarded by the building foreman, Mr. P. A. Forsythe, I feel assured that

7-8 EDWARD VII., A. 1908

everything will be in good order and in readiness to receive this season's supply of ova. Work on the dwelling-house for the officer in charge is also commenced. The excavation for basement and foundation is completed, and the framing will begin immediately. This building is being erected separate from the hatchery, and will be a great improvement over the old arrangement.

Preparations are now being made for procuring the supply of parent fish for this year. The inclosure in which the fish are retained in the pond at the hatchery, and which has to be removed every year, is now being placed in position. Some slight repairs will also have to be made to the dam and gateways of this pond. This work will be performed as soon as possible.

Following the instructions contained in the departmental letter of 22nd instant, arrangements have been made with four of the fishermen near this pond to procure about 700 parent salmon with which to stock this hatchery. As it has been found necessary to procure an additional number of parent fish to supply other hatcheries with ova, arrangements have been made to obtain about 600 or 800 at Tide Head, which is about twelve miles up river from the hatchery. An inclosure will be made at this point for the purpose of retaining these fish until spawning time. This will be built temporarily, but sufficiently strong to guarantee the safe-keeping of the fish. The ova will be collected at this pond, and can be transferred by boat to the railway for shipment.

In conclusion, I may add that in view of the improvements that will be made for carrying a large number of fry, in the new hatchery under construction, the success of the coming year's operations seems to be fully assured.

I am, sir, your obedient servant,

ISAAC SHEASGREEN.

21. SHIPPIGAN HATCHERY.

SHIPPIGAN, August 14, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to forward you my report on the operations of this hatchery for the past season. Female lobsters were in abundance this summer, and one hundred and fifty millions of eggs were collected by me, renewing over eighty jars as soon as they were emptied. I put several millions of eggs in a case made of wire mesh, which I anchored in the channel and exposed to the sun, so that the eggs hatched immediately. I used this process in order to retain some jars for the eggs collected at the end of the season, as these were of better quality than the first ones, which were delayed by the cold weather. All the eggs were hatched on July 18, and the hatchery closed July 23. We began our operations in the beginning of May, and we received the first eggs on May 10, but for fear of the ice we only started the pump on May 17, when the ice was all out. The cold weather caused more harm than last year, and did not permit us to distribute more than about eighty millions of small lobsters in the Bay of Chaleurs and Gulf of St. Lawrence.

The hatchery is now being painted, and some minor repairs being made.

I have the honour to be, sir,

Your obedient servant,

SEBASTIEN SAVOY,

Officer-in-Charge.

22. SHEMOGUE LOBSTER HATCHERY.

CAPE BALD, September 25, 1907.

Professor E. E. PRINCE,

Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit the fifth annual report of the Shemogue lobster hatchery, and in doing so, I am pleased to state that we have again been very successful.

We commenced to get hatchery ready for operation on May 1, same as in previous years, and we were ready to put on steam on the 25th, the first day of the season.

On account of wind that prevented fisherman putting out gear, there was little fishing done till May 31.

Female berried lobsters were scarce for a few days, but when the weather got warm they became very plentiful.

We noticed the first fry in the tanks on June 19, and hatching came fast and regular. We gave them a large supply of water, as there was no storm to interfere, consequently the young lobsters developed rapidly, and were in a healthy condition when liberated.

Every visitor who came in was pleased with our work, and the hatchery has made a record for itself this season as regards good results. We collected 158,000,000 of eggs delivered at the hatchery in good condition.

We put out to sea on the usual ground, from near Cape Tormentine, east, to Caissy Cape, west, 126,000,000 healthy fry.

We gathered spawn from fourteen canneries, and I found that lobsters were plentiful, but of a rather small size, which leads us to believe that many were the product of this hatchery.

I am pleased to state that an abutment stone wall, facing the hatchery, and a crib in front of the boiler-room has been constructed which will protect these buildings from further undermining by the sea.

The pipes have been taken up, the hatchery thoroughly cleaned and everything laid away in readiness for next season's operations.

I have the honour to be, sir,

Your obedient servant,

NAP. S. LEBLANC,

Officer-in-Charge.

23. BEDFORD SALMON HATCHERY.

BEDFORD, N.S., July 24, 1907.

Professor E. E. PRINCE,

Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I beg to submit my report of operations at the Bedford hatchery for the past season.

About the first of November last I obtained at the St. John retaining pond 500,000 salmon eggs.

Speckled trout eggs were purchased at following places :—

Phinney's pond, Spa Spring, 80,000; Bulmer's pond, Sackville, N.B., 30,000.

22—18

Those secured from Mr. Bulmer were mostly from hand-fed captured fish and did not hatch as well as those taken from fish direct from the pond. Ninety per cent of which hatched.

At the Phinney pond the water was low and muddy and the fish were weak, therefore the hatch of fry was not as large as if conditions were more favourable.

I am making arrangements for securing parent trout from some larger lakes fed by springs of pure water where the fish are large, and I hope to obtain better results.

The distribution of fry commenced on May 27 was completed on June 14, as follows:—

Salmon.

Bear river, Annapolis county.. . . .	50,000
Lake Vaughan, Yarmouth county.. . . .	25,000
Argyle river, Yarmouth county.. . . .	25,000
Little lake, Yarmouth county.. . . .	25,000
Roseway river, Shelburne county	50,000
Grand lake, Annapolis county.. . . .	25,000
Pennant river, Halifax county	40,000
Indian river, Halifax county	40,000
Salmon river, Halifax county.. . . .	40,000
Mackintosh river, Halifax county	80,000
Sackville river, Halifax county.. . . .	40,000
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Total	440,000

Speckled Trout.

Catamaran lake, Halifax county.. . . .	1,000
Rocky lake, Halifax county.. . . .	2,500
Lake Amiro, Yarmouth county.. . . .	2,000
Lake Annis, Yarmouth county	2,000
Crawleys lake, Yarmouth county	2,000
Milton ponds, Yarmouth county.. . . .	2,000
Lake Ellenwood, Yarmouth county.. . . .	2,000
Little lake, Yarmouth county.. . . .	2,000
Milford lake, Yarmouth county.. . . .	2,000
Fales river, King's county	2,000
North river, King's county	2,000
Porter's lake, King's county	2,000
Grand lake, Annapolis county.. . . .	2,000
Roseway river, Annapolis county.. . . .	4,000
Isle Madam lake, Richmond county.. . . .	4,000
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Total..	33,000

The water in the Sackville river being high this season, a large quantity of salmon have ascended and net fishing in the basin is being quite successfully prosecuted. Reports of good catches of salmon come in from all the rivers along the coast.

The hatchery is in a good state of repair.

The annual cleaning, renovating and painting of troughs and trays is being done.

The grounds approaching the front entrance have been levelled off, a stone wall and railing placed along the water front, a new fence erected along the front road and across the back lot, all of which adds to the appearance of the place.

I am, sir,

Your obedient servant,

ALFRED OGDEN.

SESSIONAL PAPER No. 22

24. WINDSOR HATCHERY, N.S.

WINDSOR, August 22, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I herewith beg to submit my annual report for the past season.

In November, 1906, I received 700,000 salmon ova from Miramichi retaining pond, South Esk., N.B., and in April, 1907, 100,000 salmon ova from the same source. The above ova were laid down in good order in our hatching troughs, from which were hatched 721,000 fry, which were distributed as follows:—

Avon river,	Hants county.....	251,000
Meander river,	“	150,000
Hebert river,	“	50,000
Kennetcook river,	“	50,000
Cornwallis river,	King's county.....	50,000
Gaspereaux river,	“	50,000
Long lake,	“	50,000
Cloud lake,	“	50,000
Lake Roundhill,	Annapolis county.....	20,000

The above-named rivers have been the spawning grounds of salmon from time immemorial, and barring the pollution and obstruction of some of these by sawdust, there should be good results from stocking these waters.

Long lake, Cloud lake and lake at Roundhill are not as suited to salmon fry as are the other waters named.

The hatchery here is in first class condition, and the percentage of ova hatched shows that the water and other conditions are satisfactory.

I am, sir, your obedient servant,

FRANK BURGESS.

25. MARGAREE HATCHERY, N.S.

N. E. MARGAREE, N.S., August 3, 1907.

Prof. E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit the annual report of work prosecuted in Margaree hatchery under my direction during the season of 1906-7.

Early in November, 1906, as instructed, I proceeded to St. John, N.B., and procured the salmon ova, about 1,000,000, apportioned to this hatchery, and returned with them. Upon arrival they were without delay placed in the incubation troughs. They were in excellent condition. The dead ova, fewer in number than usual, were at once picked out.

About Christmas, in common with all streams in northwestern Cape Breton, a very severe freshet took place in hatchery river. Nothing approaching it in severity is remembered by the oldest inhabitant. For fully five days the hatchery was surrounded by a seething, turbulent mass of water, during which time we were unable to enter. At the time I gave you a detailed account of this flood and the damage in-

7-8 EDWARD VII., A. 1908

flicted to the hatchery property thereby. The supply pipes were broken in many places, and thrown out of position, and much of the land washed away. Inspector Finlayson, who visited us at the time, had repairs made to render the buildings reasonably safe in the event of another such freshet, and had the supply pipes temporarily repaired. The ova were without running water from December 24 to January 14. During that time they were supplied with water by pump and at times by bucket. This was very laborious work, but I am pleased to state that the ova suffered none, but continued in first class condition through the period of incubation, with very small loss.

About April 20, hatching was concluded, and the resultant fry, numbering about 925,000 were during June liberated in good condition in the following streams, namely:

Big Intervale, Margaree river, Inverness Co.	50,000
Black rock, Margaree river, Inverness Co.	50,000
Tingley's, Margaree river, Inverness Co.	50,000
Greig's, Margaree river, Inverness Co.	25,000
Hatchery river, Margaree river, Inverness Co.	50,000
Crowdis bridge, Margaree river, Inverness Co.	50,000
Cranton ferry, Margaree river, Inverness Co.	50,000
Rossville river, Margaree river, Inverness Co.	100,000
S. W. Margaree, Margaree river, Inverness Co.	100,000
Little river, Cheticamp, Inverness Co.	200,000
Strathlorne river, Inverness Co.	100,000
Middle river, Victoria Co.	50,000
Baddeck river, Victoria Co.	25,000
North river, St. Anns, Victoria Co.	25,000
Total.	925,000

The hatchery is now being cleaned, and the trays, supply tank, troughs, &c., varnished. New pipe is being ordered, and it is intended to have the old terra-cotta pipe replaced with this iron pipe. This work will be finished in time for next season's operations.

All of which is respectfully submitted.

I am, sir, your obedient servant,

ALEX. G. CARMICHAEL.

26. BAY VIEW LOBSTER HATCHERY.

August 1, 1907.

Professor E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit the annual report of operations at this hatchery for the season of 1907, which I am pleased to say have been very successful.

After some preliminary work on the boiler, I commenced on May 1 to get the hatchery in readiness for the season's operation. This was the coldest and latest spring that has been known here for some years, the straits being blocked by heavy ice, which did not leave till May 20. No lobsters being taken in this vicinity till May 24.

I had steamer collecting ova as soon as the fishing commenced, and had her employed every day weather permitting till I had the hatchery filled.

On June 20, I had every jar in the hatchery filled with ova, all in first class condition.

SESSIONAL PAPER No. 22

The weather continuing cold the fry were late hatching out, and it was not till July 1 that the first fry appeared. After that date they hatched out very rapidly and with great success, there being practically no bad eggs in the hatchery.

155 millions of healthy young fry were distributed west of Gull rock, Pictou island and in the bay outside of Cariboo and Pictou harbours.

During the winter the boiler at the hatchery was thoroughly inspected and tested and some repairs were made, and both engine and pump gave good satisfaction this season.

Early in June the water in our wells gave out, and for the remainder of the season I had to have most of the water used in the boiler hauled to the hatchery.

At the end of the season I had the outside of the hatchery painted white, which greatly improves the appearance of the building.

The hatchery was closed July 27, leaving everything clean and in good repair.

I have the honour to be, sir,

Your obedient servant,

W. F. HARRIS.

27. CANSO LOBSTER HATCHERY, N.S.

CANSO, N.S., August 12, 1907.

Prof. E. E. PRINCE,

Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit my third annual report for the season of 1907, and beg to say that on April 25 I started work at the hatchery, taking advantage of the spring tides which happened about that time, to do some necessary work at the salt water well.

On May 7 we started the pump with eleven millions of eggs in the jars. We collected from ten factories.

During the month of May we collected forty-six millions of eggs, and I was in hopes of getting a much larger quantity during June, but on the 5th of that month an easterly storm arose which lasted, with a very heavy sea, until the 11th, destroying so many lobster traps that a great many of the fishermen had to abandon the business for this season. However, we continued collecting eggs until the last of June, and succeeded in getting eighty millions.

During the storm referred to above we had a great quantity of dirt to contend with, brought in by the pump; but as the eggs were not then much developed it did not seem to injure them.

The first young lobsters appeared in the tanks on July 10, eight days later than last year; this was on account of the temperature of the water keeping down longer. At this time the eggs were in good condition, with scarcely any dead ones in the jars, and from the 18th until the 26th the young lobsters hatched very rapidly. On the last-mentioned date another easterly storm, occurring just on the spring tides, was the cause of a greater quantity of dirt than usual coming in. The troughs and tanks were continually overflowing, so much so that during the night we had to take off the strainers and let the young lobsters run into the harbour, as we would have killed them sweeping the strainers. We lost some eggs in this storm which were just about developed and could not then stand much dirt.

In all we hatched sixty millions of young lobsters and distributed them in the vicinity of the factories, from which we collected eggs. On July 31, we distributed the last and after the necessary cleaning and painting closed down.

I may say that we had some delay in getting the hand-pump for the fresh water well, but as rain was plentiful this season, we had to buy a small quantity of water.

7-8 EDWARD VII., A. 1908

I beg to say further, that something should be done before another season, to improve our salt water well, so as to prevent so much dirt from getting to the pump, as should a storm occur just at the time the eggs are developed, it might mean the loss of the season's work.

I have the honour to be, sir,

Your obedient servant,

JAMES MEAGHER,

Officer-in-Charge.

28. KELLY'S POND HATCHERY, P.E.I.

WINSLOE, P.E.I.

Prof. E. E. PRINCE,

Dominion Commissioner of Fisheries,

Ottawa.

SIR,—I beg to submit the following report of the operations at Kelly's Pond hatchery, and I am pleased to say that we have had a most successful season. On November 9, I went to St. John, N.B., and secured five hundred and ninety thousand (590,000) salmon eggs, which were placed in the troughs in fine condition. On December 14, Mr. Finlayson, inspector of hatcheries, brought me two hundred and thirty thousand (230,000) eggs, which completely filled the hatchery. After giving the eggs a thorough picking we had scarcely any dead ones during the remainder of the hatching season. The water kept very clean during the winter, so that we had very little washing to do, a great improvement on last year.

On February 9 the eggs began to hatch, and early in March were all out. The hatching dam has kept in good order since it was repaired two years ago. The hatching and dwelling house are in good repair, both having been painted this season. A fence has also been erected around the grounds, which is also a great improvement.

The fry were distributed in the following rivers in fine condition:—

Morell river, King's county	140,000
Midgell river, King's county,	140,000
Fortune river, King's county	60,000
Murray river, King's county	60,000
Winter river, Queen's county	160,000
Black river, Queen's county	60,000
Wheatly river, Queen's county	60,000
Dunk river, Prince county	80,000
North river, Queen's county	30,000
	<hr/>
	790,000

I am, sir,

Your obedient servant,

A. W. HOLROYD,

Officer-in-Charge.

SESSIONAL PAPER No. 22

29. WINSLOE LOBSTER HATCHERY.

WINSLOE STATION, August 3, 1907.

Prof. E. E. PRINCE,
 Dominion Commissioner of Fisheries,
 Ottawa.

SIR,—I beg to submit my report of the operations at Blockhouse Point lobster hatchery for the season of 1907.

The spring opened later this season than for many years past. The first spawn collected was on May 24, a month later than usual; but I am pleased to say we collected a much larger amount of spawn than last year. The fry first appeared in the jars on June 27, and continued hatching splendidly up to July 16. They were distributed in splendid condition. I did not see a dead lobster in the barrels or in the hatchery. I am pleased to say that the packers speak in the highest terms of the good work done at the hatchery.

Never before were there so many lobsters seen. Eighty millions of fry were planted in the following places:—

Argyle shore.	5,000,000
Canoe cove.	10,000,000
Southwest reef, St. Peter's island.	10,000,000
Southeast bar, St. Peters island.	10,000,000
Keppoch reef.	5,000,000
Seal rock, Government island.	20,000,000
Point Prim.	10,000,000
Middle ground.	10,000,000
	<hr/>
	80,000,000

The hatchery has been painted and the whole plant is in a splendid state of repair, with the exception of the wharf which is a very exposed situation and will require some repairs before next season's operations commence.

I have the honour to be, sir,

Your obedient servant,

A. W. HOLROYD,
Officer-in-Charge.

30. FOURCHU LOBSTER POND.

The following report on the operations at the Fourchu Lobster Pond during the past season is taken from the reports of Fishery Officer H. C. V. Levatte, of Louisbourg, who was authorized to supervise the work and from various reports on the files of the department:—

'The drift-ice seriously retarded all fishing operations in Cape Breton up to June 5 and Gabarus bay was blocked with it. Indeed, 1,500 lobster traps were destroyed in the first week in June at Fourchu by the ice. Lobsters, however, were quite plentiful, and over 14,000 lbs. weight were landed from 300 traps in a few days in May at Mr. H. F. Baker's factory at Fourchu—the best fishing known in the district for the past ten years.'

7-8 EDWARD VII., A. 1908

The lobster pound was considerably damaged by ice during the winter, but Mr. Baker thoroughly repaired it at considerable cost; also divided it into more compartments, there being five separate inclosures instead of three, as originally built for the lobsters. Fewer lobsters were thus placed in each compartment, and on June 10, 3,000 seed lobsters were in the pound in the best condition. Later seed lobsters were impounded in batches, the total for the season being 43,905. On July 10 and 11, 21,460 seed lobsters were deposited in the waters off Red Head in excellent order and condition, and the death rate in the pound was reduced to a minimum, but owing to the low temperature (the highest being 53° up to July 13) no fry were developed, and only about 5 per cent were in an advanced state. Mr. Hardy, the assistant, daily attended at the pound, looking after the feeding, taking out and depositing of the lobsters, and the removal of dead ones. All due vigilance and care were exercised. On July 24, the lobsters placed in the pound were reported as 'in prime condition,' the temperature of the water not exceeding 56°, and the first lobster fry were noticed on July 20, the latest date since the pound has been operated, and the stage of advancement in the seed lobsters is fully 21 days behind previous years, owing to the coldness of the water.' On August 8, 22,449 seed lobsters were taken out of the pound and released in the waters of Cape Breton and Richmond county coast, thus making a grand total of 43,905 seed lobsters liberated, after being impounded and held during the open fishing season.

SESSIONAL PAPER No. 22

ANNEX C.

REPORT ON OYSTER CULTURE BY THE DEPARTMENT'S EXPERT FOR
THE SEASON OF

1907.

C. G. S. 'OSTREA,' CHARLOTTETOWN, P. E. ISLAND, October 30, 1907.

To Professor E. E. PRINCE,
Dominion Commissioner of Fisheries,
Ottawa.

SIR,—I have the honour to submit to you my annual report on oyster culture of last season's work in the lower provinces.

Murray Harbour, P.E.I.

As soon as navigation opened, which was very late this year, I proceeded to Murray harbour on the 21st May, passing through miles of drift ice on my way there and commenced work on the beds by removing the eelgrass growing there. Work continued until the 16th July, when the bed was found to be in a clean condition. After finishing raking over the area, I had three hauls with the dredge on different parts of the bed with the result of catching fifty-six, seventy and seventy-one oysters respectively. The oysters are large and well grown. I did not notice many small ones amongst them, but it is reported that several small oysters are to be found scattered around the shores and islands in the vicinity near low water mark, which the fishermen maintain were not growing there before this area was planted, although I had no opportunity on this occasion of seeing them myself, devoting my whole attention to the bed, but have seen them on my former visits. The eelgrass appears to grow very thick on this bed and requires a large amount of labour to keep it clear, in fact the whole river and flats are covered with it and no doubt the seed drifts on the clear bottom and finds a suitable resting place. After finishing my work here I proceeded to the Bras d'Or lakes and made an examination of the areas there.

Bras d'Or Lakes, C.B.

On my arrival here I made a careful examination of the areas in the vicinity of Orangedale and Malagawatch bays, River Dennis, Seal cove and Estmere bay, which comprise the waters both inside and outside of Little crossing, also the coves, rivers and shores of the several islands situated within the above waters.

Malagawatch bay consists of a sheet of water about five miles long and a little over one mile wide. It is almost landlocked and is protected from storms from every direction owing to the land being heavily wooded. The eastern end is shallow and oysters were comparatively scarce here, although a few were found all round the shores, the bottom is sandy and the shores stony. There is quite an extensive flat here, in from five feet water gradually deepening to ten feet water. I tried several hauls of the dredge and found the bottom to be thickly covered over with mussels and eelgrass, the bottom was firm and sandy, and the shores on both sides form part of the Indian

7-8 EDWARD VII., A. 1908

reserve. From the burying ground on the south side of the bay up to the head, oysters were found to be much more plentiful and about half grown in size.

On Stony point, at the entrance of Malagawatch bay, is a flat or point of land running out from the shore for about half a mile with a firm sandy and gravelly bottom clear of eelgrass, and small oysters are growing over this area in large quantities. There is a strong tide running over this point as the entrance is very narrow, very few full grown oysters were found here. This area is shallow with clear water, the larger ones no doubt were evidently caught last fall. From Stony point to McLean's cove (opposite Plaster island) on the north side of the bay oysters were very scarce, and from McLean's cove to the head of the bay oysters were growing in larger quantities, but small in size.

At the head of the bay there are several small islands, and this area covers a large tract of shallow water, about two miles long and one mile wide, with a clean sandy and gravelly bottom thinly covered with weeds and eelgrass, (this is the chief fishing ground in this district) and men come for miles all round and make this their headquarters during the oyster fishing season, where large quantities are caught annually, and there is a large number of healthy looking small oysters laying over the whole area where a rake can find a bottom. Seal cove and Mill brook would be about one mile deep, situated at the northwest corner of Malagawatch bay, oysters are found scattered in very fair quantities all round the shores with a varying width of from fifteen to sixty feet. In the middle of this cove the bottom is softer and the current is not very strong. At the southwest corner of this bay the River Dennis empties itself, and the soil at the western part of the bay is composed of a sandy and gravelly bottom. Oysters are scattered in very fair quantities over the whole area in a depth of water varying from eighteen inches to twelve feet. The distance from the shore varies from ten to two hundred yards, according to the nature of the land; in some places it is flat and deepens gradually, at others the water deepens suddenly. The size of the oyster increases as the water gets deeper; this is owing to the larger area of ground they are growing on, consequently the greater difficulty in fishing them.

In River Dennis oysters are fished both below and up to about three miles above the bridge. They are not so good in quality owing to the large amount of fresh water continually running down. The bottom is muddy and of a softer nature, the oysters grow very irregular in shape; the shells are white in colour and soft, thin and brittle. This, no doubt, is caused by the water being so brackish and the nature of the bottom; several of these oysters are found attached to sunken trees and logs.

On the south side of the upper part of the bay is an extensive flat called McLean's marsh, about half a mile in length, and varying in width from seventy-five to three hundred feet, laying between the mouth of River Dennis and McLean's cove, where oysters are found to be thickly scattered over the whole bottom in a depth varying from eight or ten feet on the outside into low water mark. The bottom is composed of a sandy and gravelly nature with eelgrass growing very thinly on the bottom. The shore there runs down to McAulay's cove, a distance of nearly two miles, and oysters are found all along the shores on all the points and spits of land and in the coves. Off McAulay's shore there is a flat of about an eighth of a mile square with a varying depth from four to ten feet. The bottom is firm, but upon examination it was found to be covered with mussels and eelgrass. There are two islands along this shore with a channel between carrying a depth of thirteen feet with a soft muddy bottom.

Orangedale bay is about three miles long and three quarters of a mile wide where several coves are formed around its shores, and oysters are taken from them as well as from the shores of the bay itself. Among them are Morrison's cove, nearly a mile wide on the eastern end of the bay, where large quantities of small oysters are found with large ones scattered around. The middle of this area is much shallower than at the sides and forms a middle ground where oysters are growing plentifully over the

SESSIONAL PAPER No. 22

whole area, also all round the shores. The bottom is covered in most places with eelgrass and other seaweeds, with a slight coating of mud over a sandy bottom. There is very little current in this cove. One haul with a small hand-rake (seven inches by ten) we found one hundred small oysters, with other hauls of smaller numbers, seventeen, twenty-three, and so on. This rake only scratches over about two square feet of ground at each haul, at a depth varying from three to ten feet water. In Gillis' cove, which is about a mile deep, with irregular coastline, small oysters are found scattered all along the shores. In one haul we counted one hundred and fifteen small ones. Where any clean points of land project under water it was generally found to be covered with small oysters. In Martin's cove, which is nearly a mile deep, oysters were thickly scattered over the eastern side, and thinly on the opposite side of the cove. At McNeil's island on the outside of the cove, on the western side of island, small oysters were found to be scattered all over the flats; also along the south side of the bay opposite the island. From Martin's cove to Gillis' cove, on the north side of the bay, oysters were found to be scattered all along the shore.

In McKinnon's harbour oysters were very scarce, only found a few in some of the coves.

On the eastern shore leading up to the Little crossing, small oysters were found on the points and in some of the coves, also the same on the western side, but very few were found in the coves. On the spit of a small island leading to the Broom, we found it practically covered with small oysters. There is a small strip of ground on the western side of the bay outside of Little crossing not very wide and varying in depth from four to ten feet water with a firm bottom. It is covered with mussels and eelgrass and as the water deepens so the bottom softens. It is very difficult to find much ground suitable for cultivation.

Inside the Little crossing or Estmere as it is now called, is a tract of water about two miles in length and a quarter of a mile wide with a very irregular coastline as it is indented with coves all round, both the coves and points of land around the shores are practically covered with small and half grown oysters laying in shallow water from one to five feet deep and varying in width from ten to fifty feet. Forty-three half grown ones were taken by one haul of the rake, and several others made as good a showing. The bottom is firm with a thin coating of mud or sediment on the top. Eelgrass appears to grow all round here, there is very little tide and the water was very clear so that the bottom was visible where the oysters were growing. The extents of these areas are difficult to estimate owing to the irregular coastline which surrounds the lakes and bays, there being so many creeks and coves where oysters are found. The above areas therefore are approximate ones, the measurements are taken from an admiralty chart printed on a small scale.

The number of oysters seen during this examination is far in excess of any of my previous visits, and there is every prospect of a good catch during the next two seasons as the small ones are very numerous.

The soil consists chiefly of a sandy bottom with a slight coating of mud on top deposited by the currents and freshets. Along the shores where the oysters find a resting place it is generally of a stony nature, where the earth has been washed away leaving the stones clean with sand underneath.

The eelgrass which grows here in the locality of oyster growing areas, acts as a spat collector, as the spat attaches itself to the weeds while in a floating condition and grows until it sinks the eelgrass to the bottom, and it is by this means the oyster supply is preserved from year to year. I am informed upon good authority that each fall when gales of wind occur, windrows of eelgrass are thrown upon the shore literally covered with young oysters.

A large quantity of this spat could be obtained and raised artificially (placing the same in trays) by private parties if they had the ground to transplant them until it would grow large enough to take care of itself. The oysters here grow very fast owing to the shallow water they are laying in, but the water is much fresher throughout the

7-8 EDWARD VII., A. 1908

lakes than either the waters of New Brunswick or Prince Edward Island owing to the mountainous nature of the land which surrounds these waters. I am of the opinion that if these oysters were transplanted to waters of a greater density it would naturally improve both the oyster and shell. The current as a rule is generally sluggish, and fresh water drains from the mountains the whole season, which retards the flow of salt water on these areas during the incoming tides.

The number of oysters taken from these areas is difficult to obtain as fishermen come from all parts of Cape Breton island and Nova Scotia to fish here. Last season some five hundred barrels oysters were shipped from Orangedale station, and the station agent informed me that last year was considered a poor year. Then others are taken away by schooners to various points such as Halifax, Sydney, St. Pierre and Newfoundland and no record obtained as to their destination.

I am of the opinion that very little could be done to improve these areas, or the quality of the oyster. If the eelgrass were removed from these beds it might stop the future supply of spat, and that would not change the salinity or colour of the water which I am fully convinced is the whole cause of the oyster showing the black margin round the mantle, also the softness of the shells, both of these items are detrimental to the commercial value of the oyster as they will not stand transit without loss and damage by breakage.

Caraquet, N.B.

After finishing my examination in the Bras D'Or lakes I proceeded to Caraquet, arriving there on the 5th September, and have continued working on the oyster beds when weather permitted, removing the eelgrass which is growing over the area up till the 18th October, when the weather became so rough it was impossible to do any more work I concluded to suspend operations for the season. These beds cover an area of about one and a half miles long and about one mile wide. The water is very shallow, in some places, it is only possible for me to work at high water time and at low water time I cannot work on the beds at all. There is a large quantity of eelgrass growing on this area which could not be removed this season, and the condition of the beds are dirty. The weather has been exceptionally boisterous the whole of the season which has retarded my work to a great extent, not only here but elsewhere, and in all my experience I have never met with such bad weather as I have this season, but I have taken advantage of every opportunity that offered. It is estimated the catch from these beds this season will aggregate about four hundred barrels before the close of navigation.

I sailed from Caraquet on October 21, but owing to the tempestuous weather did not arrive in Charlottetown before November 2, where I will place the *Ostrea* in her winter quarters after removing the gear from her.

SHEDIAC BAY AND QUAAHAUG FISHING.

After some correspondence and acting under instructions from your department, I proceeded to Shediac on June 1, and placed stakes around the oyster beds at a distance of two hundred yards from the corners of the beds, the fishermen fishing quahaugs outside the line of stakes. Persons fishing for quahaugs use both tongs and rakes with longer teeth than are necessary for the fishing of oysters, as the former fish burrow in the mud. When the rakes or tongs are brought to the surface the mud is washed from the rakes before the quahaugs can be picked out, consequently there is a heavy sediment carried by the tide and settles over a large area from the boat, and when this method is carried on daily by hundreds of fishermen, it can easily be realized that a heavy coating of mud will soon be found covering an oyster bed if fishing is permitted to be carried on too near the beds, which will take but a very

SESSIONAL PAPER No. 22

little while to exterminate the oysters by smothering them. I have examined oysters taken from the immediate vicinity of where quahaug fishing was permitted on Prince Edward Island, and found a heavy coating of mud encircling the mantle of the oyster, which would shortly cause death to take place. Satisfactory arrangements appear to have been made in New Brunswick respecting the quahaug and oyster fishery, but am of the opinion that both oysters and areas have been destroyed in Prince Edward Island by indiscriminate raking for quahaugs too near the oyster beds, with fatal results to the latter, and I would respectfully urge the department to reserve some areas exclusively for oyster fishing such as Grand river, where there has never been a failure of oysters until this year, which I attribute to the quahaug fishing. No quahaug fishing should be allowed here above the ferry wharfs unless they are taken by oyster tongs when fishing for oysters, and then these boats should be limited to the quantity taken daily, say not to exceed one bushel of quahaugs per day. The same to apply to Bideford river, where no quahaug fishing should be allowed above Lennox island and McLean's point, on Lot 13, as it is plainly to be seen that quahaug fishing has had a serious and deadly effect upon the oyster industry, and at the rate the fishing is carried on, I am of the opinion it will not be a great while before the quahaug will also be scarce in some of these localities.

CLOSE SEASON AND SIZE LIMIT.

The season in which oysters are now taken commences on October 1, and closes with navigation; this, I believe, under the present conditions, gives general satisfaction, as oysters are reported to be very scarce this season. The size limit (3 inches) has also met with general approval, as oysters under that size are really too small for marketable purposes, and by allowing or leaving the smaller ones to remain on the beds until the following season, they have then grown to a fairly marketable size.

OYSTER BARRELS.

I would again respectfully call the department's attention to the different sizes of barrel that oysters are shipped to market in, and all sold as a barrel of oysters whether they are large or small. Formerly oysters were shipped in the regular flour barrel, and that has been the recognized measure for a barrel of oysters, and a large quantity are shipped to-day in the flour barrel, while others use an apple barrel, and again others will withdraw a stave or so from the regular flour barrel, until a person really does not know what he is buying when ordering a barrel of oysters. The flour barrel is much the easiest and cheapest to obtain, but merchants and buyers require a standard size to be recognized by law to prevent fraud. Whether the measure is large or small they care not, but an Act should be enforced relating to a standard measure for oysters to protect buyers and merchants from being deceived in their purchase.

The dimensions of an ordinary flour barrel are about as follows: Seventeen inches top and bottom, diameter with two inches bilge, and twenty-five inches deep on the inside, and to contain nothing less than ten pecks. This is a very important matter and I would respectfully ask the department to take immediate action without further loss of time.

PRIVATE CULTIVATION.

If some definite arrangements could be entered into with the provincial and federal governments, whereby persons could secure an area of ground and cultivate it privately it would prove a great source of revenue in a very short time to those interested in it if properly handled. Oysters are now becoming so scarce that the demand far exceeds

7-8 EDWARD VII., A. 1908

the supply. consequently our beds are becoming slowly but surely depleted, and if no assistance is given they will soon be a thing of the past. If, however, private areas were in existence dotted over different parts of the bay, the spat from these beds might be carried to the natural beds by the currents and be a means of keeping up the supply of both public and private areas.

Oysters might be permitted to be obtained from shallow points and sands or ground drying at low water or where the spat has been deposited at a depth where they can be picked by hand, but on no account would I allow any small oysters to be taken from public beds to stock private ones. Or if some of these small oysters that are to be found on the ebb dry could be transplanted to the natural beds it would certainly prove very beneficial to those interested in the industry.

I have the honour to be, sir,

Your obedient servant,

ERNEST KEMP,

Oyster Expert.

APPENDIX No. 12.

ANNUAL REPORT ON BAIT COLD STORAGE FOR 1907.

SIR,—I beg leave to submit to you the eighth annual report on bait cold storage for the Maritime Provinces for the year 1907.

The past year has not been so busy a time in the erection of bait freezers as the two previous year, however their number are gradually increasing.

We have completed twelve new freezers since my last report was sent you; two of these were of the large type, being 100 ton freezers, one at North Sydney, called the North Cape Breton, and the other at Pictou; both of these are in Nova Scotia. The other freezers built and completed so far during the past twelve months, are at South bay. Ingonish, New harbour, Larry's river, Alder point, C.B., and Harbour Bouché, in the province of Nova Scotia. Only one has been completed in the province of New Brunswick, at Shippigan island. Four in the province of Quebec, being Newport point, Carleton centre, Point Basse, and South beach, the latter two on the Magdalen islands. We are now at work building one at Little Lamecque in New Brunswick, one at Lingan, C.B., while we are increasing the capacity of two others at Big island, Pictou, and at Petit de Grat, county of Richmond.

We are just now about to start a 100 ton freezer at Glace Bay, C.B. There are a number of other sections on the Gaspé coast where we expect to build at an early date.

The following is a complete list to date of the number of freezers completed, with the year they were built, the cost of the same and the number of bonuses paid, &c., as follows:—

BAIT FREEZERS.

PROVINCE OF NOVA SCOTIA.

Name.	Year Built.	Cost of Construction.	Department Share.	No. of Bonus Paid.	Amount.
		\$ cts.	\$ cts.		\$ cts.
Ballantyne's Cove	1900	1,361 04	861 04	5	369 06
Point Hood Island	1900	1,313 60	656 80	4	268 00
Bayfield	1901	1,995 89	952 94	5	470 00
Gabarouse	1901	1,982 82	991 41	3	251 50
Whitehead	1901	963 41	481 70	3	228 45
Point Bickerton	1901	1,043 08	521 54	4	256 50
Sambro	1901	2,246 66	1,000 00	3	300 00
Point La Tour	1901	1,330 03	690 01	0	Sold
Clarke's Harbour	1901	1,202 88	601 44	3	206 00
Lower E. Pubnico	1901	2,061 39	1,000 00	1	48 00
Sandy Cove	1902	1,427 34	713 67	4	392 00
Ingonish	1902	1,604 33	797 16	3	114 05
Cheticamp	1902	1,277 42	638 71	1	100 00
Eastern Harbour	1902	1,491 02	745 51	4	382 52
Petit de Grat	1902	1,515 95	757 97	5	490 25
Westport	1903	1,600 00	800 00	2	151 50
North Sydney	1903	2,038 89	1,000 00	2	194 00
Ketch Harbour	1903	1,401 89	700 94	2	200 00
La Have	1904	2,260 81	1,000 00	2	152 00

7-8 EDWARD VII., A. 1908

PROVINCE OF NOVA SCOTIA—*Concluded.*

Name.	Year Built.	Cost of Construction.	Department Share.	No. of Bonus Paid.	Amount.
		\$ cts.	\$ cts.		\$ cts.
St. Peters.....	1904	2,036 05	1,006 00	2	103 05
Half Island Cove.....	1904	1,816 87	908 43	3	300 00
Lockeport.....	1905	1,788 66	894 33	1	57 10
Louisburg.....	1905	2,290 16	1,000 00	1	80 85
Drum Head.....	1905	1,649 87	824 68	2	200 00
Quoddy.....	1905	857 73	428 86	0	.....
Big Island.....	1905	1,013 32	506 66	1	60 55
Arisaig.....	1905	1,064 16	532 08	1	100 00
Digby.....	1906	4,441 38	2,000 00	1	100 00
Lunenburg.....	1906	4,544 76	2,000 00	1	100 00
South Bay Ingonish.....	1906	1,551 76	775 88	1	100 00
Half Island Cove.....	1906	2,273 57	1,000 00	1	100 00
North Cape Breton.....	1907	4,142 30	2,000 00	.....	.....
Pictou.....	1907	4,285 27	2,000 00	.....	.....
Larry's River.....	1907	1,831 84	915 92	.....	.....
New Harbour.....	1907	1,886 52	943 26	.....	.....
Alder Point.....	1907	2,251 08	1,000 00	.....	.....
Harbour Bouché.....	1907	1,728 62	864 31	.....	.....

PROVINCE OF NEW BRUNSWICK.

Shediac.....	1902	1,210 18	605 09	4	400 00
Caraquet.....	1906	1,816 12	908 06	1	100 00
Shipigan Island.....	1907	1,776 53	888 26	.....	.....

PROVINCE OF PRINCE EDWARD ISLAND.

Frog Pond.....	1900	1,160 18	580 09	5	345 35
Alberton.....	1900	1,347 67	673 83	5	450 00
Souris.....	1901	2,064 39	1,000 00	2	23 85
Miminegash.....	1902	840 46	420 23	5	500 00
Rustico.....	1903	1,235 00	617 50	3	300 00

PROVINCE OF QUEBEC.

Bonaventure River.....	1903	1,416 05	916 02	4	355 52
Caplin.....	1904	879 38	439 69	1	97 00
Anse à la Barbe.....	1905	961 12	480 56	2	166 62
Paspebiac.....	1905	1,690 83	845 41	1	98 75
Etang du Nord.....	1905	1,729 80	864 90	1	81 00
Cabin Cove.....	1906	1,801 13	901 56	1	100 00
Maria Capes.....	1906	1,630 46	815 23	1	62 00
St. Godfroy.....	1906	1,747 01	873 50	1	100 00
Gascons.....	1906	1,695 42	847 71	1	100 00
Bonaventure East.....	1906	1,002 81	501 40	1	100 00
Newport Point.....	1906	1,619 59	809 79	.....	.....
Carleton.....	1907	1,993 81	996 81	.....	.....
Point Basse.....	1907	2,552 32	1,000 00	.....	.....
South Beach.....	1907	1,952 47	976 23	.....	.....

SESSIONAL PAPER No. 22

The following reports from the different freezing stations will give you a better report than I could possibly send you, and from them you can draw your own conclusions.

PRINCE EDWARD ISLAND.

Frog Pond, P.E.I.—The secretary reports as follows:—‘I beg leave to report our fishing operations to date in this neighbourhood for the year. The fishing started late, ice laid on our shore until May 20. Herring quite plentiful; lobster fishing better than for quite a number of years past. Codfish struck in later than usual (June 8), fishing not so good as we have had for the last five or six years. Dogfish struck in about July 10; August 8 they were so plentiful that the hake fishing was broken up; we have had the best mackerel fishing that we have had for a number of years, both in nets and with hook and line; boats with three men have taken as high as 1,700 fish in a day; for the past fortnight men have averaged 150 mackerel daily; these fish are worth 4 cents each when landed fresh. Boats out to-day, and if weather holds fine men will likely do a fine season’s work; a good many of the fishermen have landed over \$100 worth of mackerel already. We did not freeze any bait this season; fishing started late and everything came with a rush; help could not be secured; we could scarcely get enough help to secure the lobsters, which is the most important part of the work here.’

Alberton, P.E.I.—The secretary reports as follows:—‘Replying to yours of the 27th instant, I may say that we had our freezer in operation for three months this year. We froze about 80 barrels of herring, and had no difficulty in selling them, in fact we could have sold more if we had had them. The freezer did satisfactory work but is too expensive to run, that is to say, it will never make any money for any one.’

Miminegash, P.E.I.—The secretary reports as follows:—‘The present has been a very poor year for the freezers in this section owing to the fact that mackerel has been very plentiful, frozen bait was not needed, as fishermen while they find fresh mackerel, will not use frozen bait for their trawls, and at no time since 1891 has mackerel been so plentiful on our coast. in fact since the first week of June, when the fishermen began taking them, up to the present time there has always been sufficient mackerel for baiting trawls and moreover I have never to my knowledge known mackerel to take the hook so freely in August, as at the present time.

So you can see by this that frozen bait is virtually out of the business, but still at the same time another season it may be that our fishermen will realize the boon the freezer bait will be to them. Trusting that this will be of some service in regard to the utility of the government continuing to bonus freezers, as they cannot get along without it.’

Rustico, P.E.I.—The secretary reports as follows:—‘In looking over this season up to the present time, in regard to the freezer it has been most satisfactory. In May and June we froze our herring, which has proved to be of great value to our fishermen for the mackerel fishing, in fact without it very little would have been done, there has been very good mackerel fishing so far, and we hope the best is yet to come. One week of good fishing will clean out the freezer. We froze a lot of mackerel in July, which turned out fine, besides this we saved quite a lot of lobsters for the packers during their heavy fishing, so you can readily see that our freezer is of the very greatest benefit to Rustico; if the squid strike in we intend freezing a lot.’

Our freezer is in good condition and does its work perfectly; there is no longer any doubt in the minds of the fishermen as to the value of frozen bait, and the great value of the freezer to freeze and keep bait in perfect order for use is now fully established. Thanking you for your kind help and attention to us in the past as also

the government for the assistance which they have given us in building and running the freezer.'

Souris, P.E.I.—The secretary reports as follows:—

'Answering your inquiry as to the fishing in this locality for the present season, I may say the herring fishing was good, lobster fishing much above the average catch. Codfish was about five weeks later than usual, putting in an appearance, after that fishing was only fair, the bulk of the fish being very small; hake fishing good. Bait fairly plentiful all season; there were 1,200 crates stored in freezer; this added to the daily catch of herring and mackerel supplied the fishermen with plenty of bait. Herring fishing much better than last season, lobster fishing much better than last season, codfishing about half as good as last year, hake fishing better than last year, mackerel fishing better than last season.'

NOVA SCOTIA.

Big Island, N.S.—The secretary reports as follows:—'The spring of 1907 opened cold and backward, ice remaining on the coast until the latter part of May, notwithstanding we obtained an average catch of herring, which proved a great benefit to the fishermen of this place.

One fisherman going out with one dozen of herring returned with three hundred and fifty codfish. I could retail several instances where they proved of equally as much benefit. I have also frozen large catches of salmon for the native fisherman, which has brought them all to see the great benefit to be derived from it.

I also opened a fall market for eels, which they were unable to handle before, until the ice would form, and now they can handle them from the first of September.'

Ballantyne's Cove.—The secretary reports as follows:—'I may state at first that the catch has not been equal to last season, being about one-third short; this did not occur owing to scarcity of bait, as we had a full supply in our freezer, but owing to fresh bait being obtainable for most of the time, the freezer bait was not used as much as usual, the scarcity of fish was the main cause for the shortage, and the fish being very late in coming this season. The trouble with our freezer is that we have not large enough place for storing ice, and when the season is late our ice runs short; we had very good bait this season; we believe strongly that the freezer is the great source of the earning power to our fishermen, and would strongly recommend it to all. Our lobster catch was equal to last year, although very late in opening, and the supply of freezer bait greatly assisted in making the catch good.'

Arisaig, N.S.—The secretary reports as follows:—'I beg to state that we had complete success with the freezer this year; last year being our initial year with frozen bait, we were not quite as well posted in freezing and preserving bait, while this year, owing to the experience obtained, our bait came out just in as good condition as it was put in. We have tested frozen bait side by side with fresh mackerel on our trawls, and could detect no difference in the catch of fish. The bait was frozen by salt water ice too this year, while last year we had fresh water ice; of course, it takes rather more of the former ice to last through the season, but it does the work equally as well. We began using frozen bait on June 15 and still have a quantity remaining. On the whole, although the spring was unusually late, the catch of all kinds of fish is in advance of last year.'

Harbour Bouche, N.S.—The secretary reports as follows:—'Last winter we filled up the freezer with fresh water ice, but the quantity at present left is very small, and there was not much waste from melting, at least not as much as anticipated. The herring were caught somewhat late last spring and in limited quantities, although we succeeded in filling up the freezer to its utmost capacity. The frozen herring proved

SESSIONAL PAPER No. 22

excellent for cod, haddock, hake, and the catch of same was larger than for years past, which is probably the result of the fishermen having good bait for their trawls. Although many shareholders think that the freezer was not of any benefit to them this summer, I, for my part, fail to see why it hasn't benefited them, as I notice that they have caught more fish this year than usual, and I do not think this was an exceptional year at all. My belief is that the good frozen bait used by the fishermen has improved the fishing here this summer, and nothing else, for there were a few outsiders who fished out of this place, and they all did better than last year. The greatest trouble which the association has to face at present is to get a market for frozen herring, as there seem to be lots everywhere, and, although we are offering them at sacrifice prices, they are moving very slowly, but we hope to dispose of them before the ice is all gone. That is the worst feature in our association to-day, and were it not for that, we would have got along very nicely this year, but we hope and expect that the freezer will turn into a paying and benefiting establishment.'

Port Hood, N.S.—The secretary reports as follows:—'As you have asked for a report from this fishing station so early in the season, I have not much to report. The season was about two weeks later than usual. In May we had plenty of herring; we put up some in the freezer and kept them frozen until August. There was very little call for frozen herring, none scarcely, as there was fresh herring in the nets all summer, also mackerel. Hake fishing was not a half catch. Haddock and cod were about an average catch. Dogfish were very plentiful from middle of August up to present time.'

North Bay, Ingonish.—The secretary reports as follows:—'The year just passed has been of exceptional severity. The ice remained in our bay up to June, and floating ice was still seen in Sydney as late as June 10. The summer has been cold, foggy and entirely abnormal, and everything has been correspondingly late. Two circumstances have rendered the operation of the bait freezer even more expensive than usual. First: The ice did not form in the harbour the past winter and spring of a character to render it fit for use in the freezer, it was soft, filled with snow and lacked substance; accordingly, the freezer was filled to its full capacity with fresh water ice, brought from a distance at quite an increase of labour and expense for cutting, hauling and storing. Second: The presence of ice in our bay prevented any substantial catch of herring by our fishermen, so we were obliged to buy from the traps at South Bay, in order to get an adequate supply. The total bait frozen this year is as follows:—herring, 5 tons; mackerel, 10 tons; salmon and halibut, 3 tons; total, 18 tons. All of the mackerel, some of the herring and all of the salmon and halibut came from our own fishermen. Until June, it may be said, there was no fish in or near Ingonish bay, so far as could be determined, as the ice made fishing almost impossible. About June 1 the haddock struck in, and for a month or over there were great catches, in the aggregate perhaps the largest known here for many years, and of course the bait freezer helped things along. The months of July and August were so exceptionally foggy, cold and inclement that fishing here was almost at a standstill. Everything, too, in the way of farming has been delayed here as elsewhere, and that has had its effect on the fishing. It is expected that the September fishing will soon begin in earnest, and the bait freezer is all ready, with a good supply of bait to carry the fishermen along for the year; up to now there has hardly been a single squid caught in our bay, so of necessity the fishermen have had to depend on the bait freezer. We hope, however, that squid will strike in and enable us to supplement our frozen herring and mackerel with frozen squid. As a business venture the bait freezer is not yet a success, in direct pecuniary returns, it was not expected to be when it was originated, but as a method for helping fishermen it is beyond all price. It is a safeguard to them and to their industry, beyond their appreciation as yet.

7-8 EDWARD VII., A. 1908

Though ignored often in days of plenty, yet it tells its own story when the hard days come, the days of plenty of fish in the bay and no bait to be had; we have seen this and proved it and it is a part of our history; we are more sure than ever of the wisdom of having a bait freezer here. We may say of our plant that it is in perfect condition and is managed with great care and under personal supervision, and the bait frozen in it goes out to the fishermen as perfect as can be made, so far as we know, and is used by our fishermen with excellent results. We do not hesitate to say that our bait freezer is a real and constant instrument working for good.'

South Bay, Ingonish.—The secretary reports as follows:—'The season was much later this year than usual, not beginning until June 1. The month of June we had very good weather, with fair fishing, fresh bait being used. No dogfish; haddock and cod being the principal fish; July weather fair; cod and haddock fair; frozen bait used mostly. August weather fair the first of the month; cod fair, haddock scarce; frozen bait used principally; last of month bad weather, with fish scarce.'

Alder Point, N.S.—The secretary reports as follows:—'Please find inclosed the Alder point fishing report. We did not do much with our freezer yet, froze but very few fish; this, you know, has been a very hard year, the ice remaining so long on our coast, and the bait all passed.'

Gabarouse, N.S.—The secretary reports as follows:—'The fishing at Gabarouse has at no time been very good this season. The catch of mackerel and herring was good, more so than usual, and good prices were made for mackerel. The cod-fishing was also good, and excellent prices are being paid.

'The lobster season opened late, the latest for many years. Drift ice remained on the coast until June 6 and was broken by a gale of wind, which lasted until June 15, and many dollars' worth of gear and traps were destroyed. No extension of the season was granted, while the fishing at the season's end was the best for many years; the catch was about the same as last year. One hundred barrels of herring were placed in the cold storage and were used for lobster bait. On the whole, the fishermen have done well to date.'

St. Peters, N.S.—The secretary reports as follows:—'Last winter we filled our freezer with ice, in order to be ready for anything that might turn up. We found out by former experience that it was useless to freeze spring herring, as the fishermen here will not use it. We handled a large quantity of mackerel and salmon, and found the freezer very useful. We expect in the fall to stock with squid and prosecute the fall fishing; we are doing our utmost to get the people educated to this fall fishing, as we are situated in one of the best localities for this industry.'

Petit de Grat, N.S.—The secretary reports as follows:—'Haddock has been fair, herring also fair, codfish good, and weather good for fishing. Bait obtainable most of the time. In regard to the Bait Association, we froze 20 tons of squid last fall, which was kept to January 15, 1907, and has given best results and proved a blessing for the fishermen at the time. We have the ice for this year's operations.'

Cheticamp Chapel, N.S.—The secretary reports as follows:—'As to the fisheries, I will say that the record of cod, hake and haddock will fall below that of last year. The supply of clams here lost its quality early in the season, through heat and other causes, and this caused a drawback in the general catch of the season. Much was lost thus on account of not being supplied with good bait; the fishermen, therefore, waited with impatience the arrival of squid on the shore. With regard to squid, I will say that they are playing quite bad up to the present time; however, there is quite an abundance upon the shore. Salmon did remarkably well, considering the shortness of the season. Lobsters fell a little in quality, but the returns have been as favourable as any preceding year; mackerel are quite abundant, but cannot be made to bite. It is

SESSIONAL PAPER No. 22

very probable that good hauls will be made later in the fall, when the water gets colder. I will say here that the few that have been captured are of an exceptional quality.

'In conclusion, will add that the dogfish appeared to be not quite so troublesome as formerly, and very little trouble will, I think, be experienced this season on their account.'

Half Island Cove, N.S.—The secretary reports as follows:—'This season was very late, but they have done well with the fish, bait has been fair, and when they could not secure their own bait from nets and traps, they have taken it out of the cold storage, which has kept the fishermen fairly supplied; and one thing, up to date we have not been bothered with dogfish, they have kept off well so far. The price of fish has been good all round, which is good for the fishermen. One thing I might say here regarding the cold storage buildings, we have not freezing capacity enough, as when bait strikes, it is rather a glut, and by the time you get the first lot frozen they are over, so the cold storage buildings should have more capacity, so they could freeze more bait at a time than they have been doing.'

Larry's River, N.S.—The secretary reports as follows:—'With regard to your request, would say the fishery of this locality exceeds that of last year to date, in spite of the bad weather; cod fair and spawn herring also. Fishermen seem to be proud of the season in the line of fishing to date.'

New Harbour, N.S.—The secretary reports as follows:—'I might say that the fishing in our locality has been very fair this season, that is to say that cod, pollock and haddock have a little more than overbalanced the catches of last year, and an increase in the catch of mackerel of about one-third of that of last year; the catch of herring about the same as that of last year.'

Drum Head, N.S.—The secretary reports as follows:—'I have much pleasure in telling you that the summary of the season's operations has been very good. Fish has not been plentiful, but prices very good, which made up a good average.

'Bait was very easily procured, some frozen bait used, good results from same; dogfish also plentiful, which is a great hindrance, a plague to the fishermen. I have considerable bait in freezer now, and prospects look good for remaining part of the season's operations.'

Port Bickerton, N.S.—The secretary reports as follows:—'We have not had favourable weather. Fish is quite plentiful, bait scarce, dogfish bothersome. We are making preparations to freeze squid for bait.'

Quoddy, N.S.—The secretary reports as follows:—'I regret to say the Quoddy Fishermen's Bait Association has not been operated this year, and will have nothing to report but a failure of the codfishing business on account of dogfish, but we expect it to come up again as soon as the fishermen can get boats, nets and other appliances for taking cod. The lobster fishing in this section was a failure, and they are going to take up fishing again.'

Ketch Harbour, N.S.—The secretary reports as follows:—'Our freezer has not been operated until just now; we are putting in some squid, but they are not very plentiful yet; we expect to have in a good share as soon as possible. We have a lot of ice in all ready to fill it if we can get the squid, so I cannot say much at present or give a satisfactory report until later in the season; fishing is fairly good yet; pollock principally.'

Lockeport, N.S.—The secretary reports as follows:—'The fishing was a good deal better than last summer; there has been a lot more fish landed here this summer than last.

7-8 EDWARD VII., A. 1908

La Have, N.S.—The secretary reports as follows:—‘There were only small catches made in the months of May and June, so far as cod, haddock and hake were concerned, due to the fact that the weather was rough and unfavourable for fishing, but since that time there has been large catches of the above, in fact a greater quantity than was caught during the same period last year. Bait was easily procured, there being numbers of small herring as well as squid on the coast.

‘Dogfish, although numerous in certain sections of the coast, do not seem to have retarded the catch.’

Sandy Cove, N.S.—The secretary reports as follows:—‘In accordance with the regulations governing Fishermen’s Bait Freezing Associations, I beg to submit the following report for 1907. We stored about 150 tons of ice this year, and froze in April about five tons of gaspereaux, in May froze about four tons of same, which went out just as soon as we could count them out; herring were very scarce in April and May, in June we froze six tons of herring which we happened to get in the weirs, which sold evry rapidly; in August we handled 10 barrels of squid, which sold at once; we handled a great quantity of fresh haddock at different times.’

L. E. Pubnico, N.S.—The secretary reports as follows:—‘The only bait our shore fishermen use or depend on are cockles which come from St. Andrews, N. B., and vicinity; we could not get enough of them at the proper time to supply them; a great many of them are dead when we get them; as it takes about three days to get them here, and at a great expense to the fishermen, about 30 cents per bucket, the only way to secure a supply is by steamer that will bring them direct here, so that water may be thrown on them to keep them alive. If the government would help a little by subsidy, say four or five hundred dollars, it would allow a person to hire men to go into it, and keep a steady supply on hand during the fishing season, from the first of June to the first of September or later, which would give bait to a lot of men in Shelburne and Yarmouth counties. The one obstacle apparently in the way this year was that the amount asked for was so small, \$300, that they would not consider it. I would gladly make it more, but do not like to ask too much, and it would be the means of keeping so many fishermen, who contribute so largely to the revenue. Our vessels have done considerably better this year than last year; fish were fairly plentiful, only they were bothered for bait, and cockles are the only known bait the troublesome dogfish will not take. We had a small run of herring in the month of July, but only for two weeks and none since. Had our vessels not been bothered for bait they would have done a great deal better. I filled the freezer with ice last winter by your suggestions, but have not used a pound of it yet, and no likelihood of it; it cost me about \$150 net. The fishermen want me to go into it, but the expense would be \$1,500, whether I got a cockle or not, and I should sell 4,000 buckets before I could see my way clear at \$1 a bucket, as the price varies from 50 to 75 cents per bucket there.’

Lunenburg, N.S.—The secretary reports as follows:—‘Our ice-house in connection with the freezer was filled as usual with ice, and we have during the fishing season supplied a number of small boats and vessels with same, as required. Also had a quantity of frozen squid, which we supplied to vessels and boats during the spring months.

‘We now have a quantity of herring, which we were selling for bait to boat fishermen as required, and we will, later on in the season, likely fill the same with frozen herring from Newfoundland.’

Digby, N.S.—The secretary reports as follows:—‘The bait freezer has been working all right, and the fishermen use a lot of bait out of the freezer. I hope this fall to fill it full, if any large herring come; as yet herring have been on the small side. Please let me know the best kind of ice-plow to get for cutting ice out of pond, and of

SESSIONAL PAPER No. 22

ice-tools for freezer use; I have to pay duty to get them from the United States. I want an outfit for cutting ice, and an ice chippèr. Herring has been fairly plentiful this month.'

New Brunswick.

Shippigan, N.B.—The secretary reports as follows:—'The freezer has been operated; we have frozen about about 15 tons of herring; all this was frozen in the spring. No fish or herring taken now; what fish we freeze is frozen in the spring. We have had rough weather for fishing, not more than 3 tons were sold; the fish seem to be very good, well frozen and good for bait.'

Shediac, N.B.—The secretary reports as follows:—'In reference to our freezer, I beg to say the fishermen thought this spring it paid them better to sell their catch of herring to the different packers employed in the business here; we, therefore, got none for the freezer, and in connection with it I may say, had we got many herring, we would have lost them, for, from some reason which we cannot tell, 150 tons of the 200 tons of ice we put in the ice-house portion of the building melted away, although we put same in as carefully as other years. At the present time we have about two tons of fresh frozen codfish in the freezer, which are being sold out gradually. Had we not lost the larger quantity of ice, we could have filled both cold storage rooms with cod. We think next year we shall use sawdust in packing ice, instead of meadow-grass as we have done the past three seasons; each year we lose a quantity of ice.'

Quebec.

Bonaventure River, Que.—The secretary reports as follows:—'I have the honour to send you, as requested, the report on cold storage. We expect to freeze small herring in the fall as usual. The report of last month is as follows:—We had good weather the most of the time, and good cod-fishing; fresh bait scarce, but the frozen bait used with success; we are not bothered with dogfish.'

Bonaventure East, Que.—The secretary reports as follows:—'Report fishing very poor, bait very scarce, fresh bait none, weather very rough. In the month of May we had 5,500 pounds of herring frozen, and in June 700 pounds; the fishermen claimed to save their labour all right. July, we had no herring, and none in August; hoping to have some few hundred pounds to freeze in September. We put in salt-water ice, and we do not find it to keep as well as the fresh-water ice.'

Paspebiac, Que.—The secretary reports as follows:—'Ice in the spring delayed the opening of the fishing season about three weeks later than usual, but catch of cod to date exceeds last year at corresponding date. The continued wet weather has affected quality of fish to some extent, but not so much as some people might expect, accounted for by lack of any heat. I do not believe that in this immediate locality as many men are engaged in the fishing as last year, due to other fields of labour demanding help; bait has been obtainable throughout the season; dogfish have not been reported; cod is still in very fair quantity on the ground; mackerel have not been seen, in fact not looked for during past few years. We are just preparing for the fall fishing, and, considering the high prices ruling for fish, is likely to prove remunerative.'

Maria Capes, Que.—The secretary reports as follows:—'Freezer was filled with ice in February. In April we froze and stored about 8,000 pounds. In May we filled one dead room and part of the other—18,000 pounds. In June herring, codfish and salmon we froze 11,000 pounds. In July we froze mostly salmon, 5,000 pounds. In August, fall herring, codfish, &c., 1,000 pounds.'

7-8 EDWARD VII., A. 1908

'We have sufficient ice to carry us through the season; the freezer works well and gives every satisfaction, but would be superior were the store-rooms larger, and special cold storage attached where meats and fish could be chilled, and taken in and out easily, instead of having to open the dead rooms so often, causing outside air to penetrate. Fishing throughout has been fair and much better than last year in many sections, and is still improving at time of writing. Fall herring are plentiful, and we freeze some every day for bait.'

St. Godfroy, Que.—The secretary reports as follows:—'We put in our freezer this year 100 tons of ice, and we froze twenty tons of herring, all used. We have a lot of ice yet and expect to freeze again this fall.'

Anse à la Barbe, Que.—The secretary reports as follows:—'The freezer was partly filled with ice and partly with snow during March. There were only about 7 tons of herring frozen in May; of these only half has been used, but later on we expect to freeze more herring and squid. The reason no more frozen bait was used was because there was plenty bait all spring and summer; what frozen bait was used gave good satisfaction.'

Newport Point, Que.—The secretary reports as follows:—'Summary of fishing operations from Pointe Macquereau to Percé: Lobster catch small and behind last year, chiefly caused by storms damaging gear. Bait: Herring struck in somewhat later than usual, but heavier, and have kept the grounds up to this, also of larger size than has been for years past. Freezer: Bait Association, Pabos West, still filled with frozen herring, not needed, as fresh was obtainable daily. Salmon catch only about half of last year. Caplin struck somewhat later, but did not hold the grounds.'

'Codfish struck on June 6, about fifteen days later than usual; has been very plentiful, both inshore and on Miscou Banks, but weather unfavourable for fishing; the catch is about 20 per cent better than last year to date. Weather has also been very unfavourable for curing, and much of the catch damaged. Local prices rule high, in fact too high for the markets. Some merchants have sustained heavy losses in the July gales; in places without shelter, every boat was a complete wreck, together with nets and trawls; each boat valued at no less than \$200, including fishing gear. At Little river west, out of a fleet of 10 boats, only one escaped total wrecking. Weather continues very unsettled and unfavourable for fishing, and in consequence, young men are leaving in droves for the lumbering districts.'

Carleton Centre, Qué.—The secretary reports as follows:—'In reply to your letter of August 27, asking me for a report of the season: The catch of salmon this summer was better than last year; the catch of lobsters was better also; the catch of codfish was very large; the bait was principally used from the freezer and was found very good for fishing. We have still a large quantity of fat herring on hand to furnish the fishermen with all the bait they may require.'

Etang du Nord, M.I.—The secretary reports as follows:—'When the herring struck in, in the spring, we had the cold storage chambers filled with herring; at the end of June it was all used for codfish bait by our fishermen here, except about 200 crates. The fishermen took a lot of fish with this bait, some boats as many as three quintals with one crate of herring.'

Cabin Cove, M.I.—The secretary reports as follows:—'We froze 800 crates of herring in the month of May, and the fishermen have been using them since and find them very good, and gave them good satisfaction all summer. A good many of them have used their share a long time ago and are buying from others. It will be all used before the fall.'

SESSIONAL PAPER No. 22

Point Basse, M.I.—The secretary reports as follows:—‘The herring fishing commenced on May 7, later than usual, but has lasted longer than ever and has been plentiful. There have been about 15,000 barrels caught in this locality, at Point Basse, for lobster bait, mackerel bait, smoke-house, and to supply American, St. Peter and Nova Scotian vessels for bait. Lobster-fishing commenced on May 12 and has not been quite as good as last year.

‘Spring mackerel-fishing commenced on June 21 and has been a good deal better than last year, but came twenty-four days later than last year; the quantity caught here was about seven hundred barrels. Codfish was about five hundred quintals, nearly three quintals more than last year. Fall mackerel-fishing commenced only about a fortnight ago, but has not been much yet. About the bait in the freezer we cannot say much yet, because fresh bait has been so late that there has not been much used, but what was used in July has been found very good; I hope the remainder will be used for codfish in November. The fishermen find same very good bait for mackerel. Hoping this will be satisfactory.’

South Beach, M.I.—The secretary reports as follows:—‘On account of the ice being so long on the coast, the herring only came in about May 15, but they were plentiful and remained until July 15. Lobster-fishing began nearly a month later than usual; the catch was rather small on account of stormy weather. During the month of June codfish and spring mackerel were very plentiful, and the fishermen did very well with them. During the last part of the month of August there was no fish of any kind to catch, and it was only on the 27th that the fall mackerel appeared in small quantities. The bait in our freezer was found very good for codfish, but there was not much used, on account of fresh herring being so plentiful along the shore. Fishermen have tried it for mackerel and claim it is the best bait ever used; they expect to use it all up for mackerel and fall cod-fishing with good results. The freezer is perfectly kept and in very good condition.’

These are all the reports I have from the small freezers, and, as a summary of the season's operations, would say that generally ice bothered the fishermen all around the shores, and in some sections destroyed a great deal of gear, such as traps, nets and seines. The season has been an average one to date, since the commencement. Bait around the Gaspé coast and the Magdalen islands has been very plentiful so far, and in other sections there has not been a great scarcity. Quite a contrast from last year, when bait was hard to get anywhere. The Cold Storage Company, at Halifax, are now erecting a new, large ammonia plant at Hawkesbury, C.B., to be able to freeze squid, which are caught in that locality in very large quantities usually. A good supply of squid and Bay of Island herring was frozen at Halifax and Canso last year. The supply was more than the demand, this will at times happen; when the new freezer is completed, the supply of bait should be equal to all emergencies.

I received the following report from the Canso Cold Storage Company:—

‘The fishing season here opened unusually late, drift ice being on sight on June 3, a very unusual occurrence. Since that date fishing operations have been conducted about as usual and with rather more than usual success. The weather has been moderate and enabled the boats to carry on their work without any obstructions from gales of wind, but the need for power to enable them to get upon the ground has been emphasized during the moderate weather that prevailed; steps are being taken to supply that need. The demand for frozen bait in the spring up to May 5 was good, and we sold some 3,000 barrels of last year's stock up to that date. Since that date there has been little demand for frozen bait, as the wants of the fishermen have been pretty well supplied by fresh herring and mackerel. The catch of line fish up to this date has been up to the average, and so has the lobster catch; the mackerel catch was disappointing. Dogfish have not materially interfered with the operations of our fishermen

7-8 EDWARD VII., A. 1908

up to this date. There has been no bait laid in yet for next season's supply. Squid up to this time have been almost a total failure; we hear of them north and west of us and some on the banks, but they have not visited this locality.'

The whole most respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

PETER MACFARLANE.

September 13, 1907.

Hon. L. P. BRODEUR,
Minister of Marine and Fisheries,
Ottawa.

SESSIONAL PAPER No. 22

APPENDIX No. 13.

REPORT OF THE FISHERIES PROTECTION SERVICE OF CANADA.

(By Commander O. G. V. Spain.)

OTTAWA, October 30, 1907.

To the Honourable
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to report on the work of the Protection Service on the Atlantic and Pacific seaboard as well as the Great lakes of Ontario. The cruisers forming the protection fleet of last year, (1906), were as follows:—

Canada, Capt. Knowlton.
Vigilant, Capt. Dunn.
Osprey, Capt. Graham.
Constance, Capt. May.
Princess, Commander Wakeham.
Petrel, Capt. Kent.
Kestrel, Capt. Newcombe.
Curlew, Capt. Robinson, acting.

The steamers *Canada*, *Petrel* and *Curlew*, as well as the schooner *Osprey*, cruised and protected the Atlantic seaboard from the Bay of Fundy to the Northumberland strait.

The steamer *Princess*, which replaced *La Canadienne*, is exclusively for the protection of the Gulf of St. Lawrence fisheries, including Magdalen isles.

The steamer *Constance*, although run by this department, is exclusively used by the Customs Department.

The steamer *Vigilant* cruised the inland waters of Lake Erie with headquarters at Port Stanley.

The steamer *Kestrel* is on the British Columbia coast with headquarters at Vancouver.

Two small patrol boats, the *Falcon* and the *Georgia*, assist the *Kestrel* in fisheries protection work in British Columbia.

There are also a couple of such launches, patrol boats, assisting in the protection fisheries on the Atlantic side, replacing the cruisers in places where the larger vessels could not very well go. These were manned by some of the crews of other cruisers.

I have the honour to be, sir,

Your obedient servant,

O. G. V. SPAIN,

Commanding Marine Service of Canada.

7-8 EDWARD VII., A. 1908

LIST 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 1906.

Name of Vessel.	Port of Registry.	Tons.	Port of Issue.	Fees.
				§ cts.
Jas. R. Clark	Salem, Mass.	43	Yarmouth, N.S.	64 50
Margaret	Gloucester, Mass.	79	Canso, N.S.	118 50
Theodore Roosevelt	"	90	"	135 00
Effie M. Morrissey	"	83	Digby, N.S.	124 50
Oregon	"	79	North Sydney	118 50
Georgie Campbell	"	78	"	117 00
A. E. Whyland	"	96	Pubnico, N.S.	144 00
Electra	"	84	"	126 00
Valkyrie	"	104	Yarmouth, N.S.	156 00
Gladys & Sabra	Salem, Mass.	50	Liverpool, N.S.	75 00
Grace Darling	"	43	"	64 50
Golden Rod	Gloucester, Mass.	98	Halifax, N.S.	147 00
Richard Wainwright	"	98	Liverpool, N.S.	147 00
Arkona	"	97	"	145 50
Flirt	"	82	Shelburne, N.S.	123 00
Mildred Robinson	Boston, Mass.	86	Louisbourg, N.S.	129 00
Senator Gardner	Gloucester, Mass.	94	Yarmouth, N.S.	141 00
Maggie & May	"	88	"	132 00
J. J. Flaherty	"	124	Tusket Wedge	186 00
H. F. Whitten	"	92	Pubnico, N.S.	138 00
Arabia	"	86	"	129 00
Madonna	"	79	"	118 50
American	"	99	Tusket, N.S.	148 50
Alice R. Lawson	"	85	"	127 50
Bohemia	"	86	"	129 00
Athlete	"	96	"	144 00
Essex	"	84	"	126 00
Hattie A. Heckman	"	72	"	108 00
Blanche	"	78	"	117 00
Gladiator	"	75	"	112 50
Horace B. Parker	"	62	"	93 00
Henry M. Stanley	"	83	"	124 50
Sceptre	"	91	"	136 50
Hazel R. Hines	"	79	"	118 50
Wm E. Morrissey	"	93	"	139 50
John L. Nicholson	"	92	"	138 00
Mathew Kearny	"	47	Shelburne, N.S.	70 50
Independence II	"	110	Halifax, N.S.	165 00
Mabel D. Hines	"	92	Tusket, N.S.	138 00
Parthia	"	77	"	115 50
Maggie Turner	Boothbay, Me.	44	Yarmouth, N.S.	66 00
Senator Saulsbury	Gloucester, Mass.	77	Liverpool, N.S.	115 50
Senator	"	75	Halifax, N.S.	112 50
Ella M. Goodwin	"	86	"	129 00
Alpha	"	100	Canso, N.S.	150 00
Preceptor	"	89	"	133 50
Paragon	"	81	"	121 50
Arthur Binney	Boston, Mass.	80	"	120 00
Mystery	"	78	"	117 00
Susan & Mary	"	83	"	124 50
Lizzie Maud	Vinalhaven, Me.	48	Yarmouth, N.S.	72 00
Quickstep	Boston, Mass.	75	Digby, N.S.	112 50
Gossip	Gloucester, Mass.	91	Yarmouth, N.S.	136 50
S. P. Willard	"	87	Liverpool, N.S.	130 50
Samuel R. Crane	Salem, Mass.	52	Thornes Cove	78 00
Cosmos	Southwest Harbour ..	25	Pubnico, N.S.	37 50
Colonial	Gloucester, Mass.	79	Louisbourg, N.S.	118 50
Waldo L. Stream	"	81	Canso, N.S.	121 50
Tattler	"	135	Lockeport, N.S.	202 50
George Parker	"	100	Arichat, N.S.	150 00
Hiram Lowell	"	95	Pubnico, N.S.	142 50
Lucinda I. Lowell	"	77	Lockeport, N.S.	115 50
Dictator	"	92	Liverpool, N.S.	138 00
Maryland	"	86	Canso, N.S.	129 00

SESSIONAL PAPER No. 22

LIST of United States Fishing Vessels to which Licenses were issued—*Concluded.*

Name of Vessel.	Port of Registry.	Tons.	Port of Issue.	Fees.
				\$ cts.
Winifred.....	Boston, Mass.	60	Port Hawkesbury.	90 00
Raymah.....	"	95	Yarmouth, N.S.	142 50
Titania.....	Gloucester, Mass.	77	Shelburne, N.S.	115 50
Onato.....	Boston, Mass.	105	Port Hawkesbury.....	157 50
Massachusetts.....	Duxbury, Mass.	102	Port Mulgrave.....	153 00
Agnes.....	Gloucester, Mass.	75	Canso, N.S.	112 50
Thomas S. Gerton.....	"	92	"	138 00
Illinois.....	"	78	Port Hawkesbury.	117 00
Elizabeth N.	Bucksport, Me.	102	Pubnico.	153 00
Matchlin.....	Plymouth, Mass.	73	Lockeport, N.S.	109 50
Jennie B. Hodgdon.....	Gloucester, Mass.	85	Arichat, N.S.	127 50
Squanto.....	"	95	House Harbour, M.I.	*142 93
Juno.....	Boston, Mass.	85	"	*127 94
Marie Elliot.....	Gloucester, Mass.	75	Amherst, M.I.	*113 38
Judique.....	"	89	"	*134 38
Admiral Dewey.....	"	78	"	*117 88
Juniata.....	Boston, Mass.	49	Port Hawkesbury.....	73 50
Joseph W. Lufkin.....	Gloucester, Mass.	80	North Sydney.....	120 00
Cavalier.....	"	96	Port Mulgrave.....	144 00
Gardner W. Tarr.....	"	62	House Harbour.....	93 00
Olga.....	"	77	Canso, N.S.	115 50
Corona.....	"	82	Pubnico, N.S.	123 00
Vigilant.....	"	57	Canso, N.S.	85 50
Francis J. O'Hara.....	Boston, Mass.	83	Arichat, N.S.	124 50
Teazer.....	Gloucester, Mass.	61	House Harbour, M.I.	91 50
Nellie Dixon.....	Boston, Mass.	68	Liverpool, N.S.	102 00
Elmer E. Gray.....	"	84	House Harbour, M.I.	†126 50
James W. Parker.....	"	96	"	†144 50
T. M. Nicholson.....	Bucksport, Me.	90	Shelburne, N.S.	135 00
Meteor.....	Gloucester, Mass.	96	House Harbour, M.I.	†144 15
Tacoma.....	"	71	Arichat, N.S.	106 50
Sarah C. Wharf.....	Boston, Mass.	26	North Sydney.....	39 00
Elva L. Sparling.....	South West Harbour	50	Yarmouth, N.S.	75 00
Marguerite.....	Eastport, Me.	12	North Head, N.S.	18 00
Rena A. Percy.....	Cranberry Island....	46	Yarmouth, N.S.	69 00
F. W. Homans.....	Gloucester, Mass.	43	Port Hawkesbury.....	64 50
Rising Billow.....	Eastport, Me.	14	North Head.....	21 00
Viola.....	Beverly, Me.	14	Yarmouth, N.S.	21 00
Arbutus.....	Gloucester, Mass.	87	Canso, N.S.	130 50
Ralph F. Hodgdon.....	Eastport, Me.	60	"	90 00
A. M. Nicholson.....	Gloucester, Mass.	100	North Sydney.....	150 00
Corsair.....	"	78	"	117 00
Wm. H. Rider.....	"	46	Canso, N.S.	69 00
		8,364		\$ 12,550 00

* Overpaid \$3.51. † Overpaid \$1.00. ‡ Overpaid 15 cents.

107 Vessels. Tonnage 8,364. Overpaid \$4.66.
\$12,546.00 Fees collected.

FISHERIES PROTECTION SERVICE.

List of United States Fishing Vessels which have entered Canadian Ports for the Year ending 31st October, 1906, showing Net Tonnage, Crew and the number of times each Vessel entered the several Ports.

Number.	Name of Vessel.	Net Tonnage.	Number of Men.	Archat.	Barrington.	Canso.	Georgetown, P.E.I.	Halifax.	Liscomb.	Liverpool.	Lockeport.	Louisburg.	Lunenburg.	North Sydney.	Port Hawkesbury.	Port Hood.	Port Mulgrave.	Shelburne.	Souris, P.E.I.	Whitehead.	Yarmouth.	Total Entries.
1	A. E. Whyland	96	18	1				1				1		3	2						2	12
2	A. L. Spinney	72	18							1		3		1							1	7
3	A. M. Nicholson	100	18	1						1	1											7
4	Admiral Dewey	78	18	1													1	1				6
5	Agnes	75	18	1						2	1				1							7
6	Agnes V. Gleason	44	10															1				1
7	Alena	51	18															1				1
8	Alice M. Guthrie	57	15															1				1
9	Alice R. Lawson	85	20				1	1				1		2						1		6
10	Alola	100	22																		1	1
11	American	99	20				2	1						1							1	5
12	Annie Greenlaw	69	18				1	1		1		1										6
13	Annie M. Parker	100	23				1	1	2	1		1		2						2		10
14	Arabia	86	15				1	1		1		1		1								6
15	Arbutus	87	18				1			1		1					1					5
16	Arcadia	90	20						1												1	3
17	Argo	79	19				1				1	1		1						1		6
18	Arkona	97	22				1	1	1	6		1		4	1							16
19	Arthur Binney	80	19	1			1			3												5
20	Arthur D. Story	75	13															1				1
21	Arthur James	97	18				2	2				1		3								5
22	Athlete	96	18				1	1		2				3	1					2		11
23	Atlanta	74	16															1				4
24	Avalon	85	18					1						1							1	5
25	Belle Franklin	52	16				2															1
26	Bertha & Pearl	77	17																			1
27	Blanche	78	72				3						1	2							2	10
28	Blue Jacket	86	18											4	1						1	1
29	Bohemia	86	20					1														11
30	Braganza	67	19		2																	2
31	Carrie M. Babson	91	17											2								2
32	Catherine Burke	92	23											2				3			1	4

SESSIONAL PAPER No. 22

[illegible]

7-8 EDWARD VII., A. 1908

List of United States Fishing Vessels which have been entered Canadian Ports for the year ending October 31, 1906—*Concluded.*

Number.	Name of Vessel.	Net Tonnage.	Number of Men.	Arichat.	Barrington.	Canso.	Georgetown, P. E. I.	Halifax.	Liscombe.	Liverpool.	Lockeport.	Louisburg.	Lumenburg.	North Sydney.	Port Hawkesbury.	Port Hood.	Port Milgrave.	Shelburne.	Souris, P. E. I.	Whitehead.	Yarmouth.	Total Entries.
254	William Matheson	72	16	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	1
255	Winifred	60	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
256	Yakima	76	20	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
257	Ynonapousett	71	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
	Totals	19,961	4,720	42	20	207	...	75	34	113	23	100	9	170	52	...	14	161	8	40	192	1,260

SESSIONAL PAPER No. 22

H.M. DOCKYARD, HALIFAX, N.S., December 31, 1906.

To CAPTAIN O. G. V. SPAIN, R.N..

Commanding Marine Service of Canada,
Ottawa.

SIR,—I have the honour to submit to you my annual report of the work performed by the C.G.S. *Canada*, during the season of 1906, just closed.

During January and February the *Canada* lay at the wharf then occupied by the Department of Marine and Fisheries at Halifax, making necessary repairs and fittings to deck and engine department. About the 15th January, after repairs had been completed, I reported ship ready for sea at short notice.

On the 5th January I received a message from you informing me of the death of the Hon. Raymond Prefontaine, Minister of Marine and Fisheries, at Paris, France, and later that the remains would be brought to Halifax on H.M.S. *Dominion*, about the 22nd January, and instructing me to have twenty men and two officers of the cruiser *Canada's* crew, ready to receive the body and accompany it to Montreal (which we were much gratified to learn by a letter from Col. Gourdeau, Deputy Minister, had been carried out to the satisfaction of himself and the department). Captain Kent, of the cruiser *Petrel*, joined us at Halifax, and Captain May, of the cruiser *Constance*, at Levis, P.Q., both accompanying us to Montreal. At Montreal the blue jackets of this ship had the honour of maintaining a constant guard over the body of the late minister, while it was lying in state at the city hall, and on the 25th January, attended the funeral, placing the body in the family vault, at the cemetery. We afterwards returned to the ship at Halifax, where, with about forty-five of a crew, ships duties were resumed, the time being taken up in drilling the men and keeping the ship in order.

On the 11th March, an order was received from the department for either the C.G.S. *Lady Laurier* or *Canada* to proceed at once in search of a man missing from the crew of the SS. *Baines Hawkins*, which foundered off Cape Morien on Saturday, 10th March. Four hours after the order was received, this ship was going to sea at full speed. Off Scattarie, 10 p.m., March 12, made diligent search for the missing man, but nothing of him could be seen—weather very cold; 6 a.m., March 13, came to anchor in Louisburg harbour, very cold; ship considerably iced up. On the 14th we proceeded through considerable field and drift ice, towards Flint island, hoping the missing man might have reached there, but on reaching the island we found nothing of him. We then proceeded westward, going through large quantities of field and drift ice as far west as Point Michaud. Midnight, came to anchor in Liscomb harbour for shelter: southeast snow storm. March 16, heavy gale. March 17, weather clearing; wind off shore; proceeded westward and arrived at Halifax same day, making ship fast at old berth, Marine and Fisheries wharf. On our return to Halifax we found several United States bankers in port, all having Canadian license and having bait sent to them by rail from the freezer at Strait of Canso. I am of opinion United States bankers would fare poorly only for Canadian bait.

About the middle of April we started on our regular cruising, having had orders from you some time during the winter to have Cape North in mind and be on hand as soon as the ice cleared. From Halifax we cruised westward to Lunenburg and Shelburne, thence eastward, calling at several ports along the south shore of Nova Scotia, passing through the Strait of Canso on the 28th April, and arrived at the Magdalen islands on the 2nd May, where we found several Canadian and United States fishing vessels taking bait, herring being plentiful. We afterwards cruised towards Cape North, C.B., but seeing ice on our port beam and weather threatening, turned ship's head to the westward, turning the engines about sixty revolutions for the night; weather thick and rainy. Daylight broke with fine weather, turned ship's head towards Cape Breton coast and cruised on this coast for some days in company with a large fleet of fishing vessels. On May 8 we fell in with the United States trawler *Raymah*,

7-8 EDWARD VII., A. 1908

of Boston, well within the three mile line, trawling under canvas, having several dories alongside loaded with fish. After ascertaining beyond a doubt that this vessel was trawling in Canadian waters, I took her in tow to North Sydney, reporting the seizure to you at Ottawa by wireless message. I remained (with the *Canada*) in charge of this vessel until May 26, when, by your instructions I left the ship in charge of First Officer, Mr. Milne, and proceeded by rail to New Orleans, U.S., to bring the dredge *Galveston* to Quebec. I arrived at Quebec with the *Galveston* on June 29, and handed her over to Engineer M. Cowie. I then returned to the *Canada* at North Sydney.

The *Canada* had been cruising mostly about the Cape Breton coast with an occasional run to the Magdalen islands until August 31, when we went to dock at Pictou, N.S., cleaning and painting bottom and overhauling engines, &c. Floated ship again on September 6, and after coaling and taking water supply, I proceeded on Sunday, September 9 by your order, to Port Hawkesbury, where on the 10th we took Col. Anderson, chief engineer of the department on board, and immediately proceeded to St. Paul's island, arriving there on the morning of September 11. On September 12 we arrived at Port au Basque, Newfoundland, remaining there until the 13th. After visiting Cape Ray lighthouse and the Marconi station at that place, we next landed Col. Anderson at Cape North, C.B., where he located a new fog alarm, and put Money Point light right. We then proceeded to North Sydney, arriving there the same evening, where Col. Anderson left the ship. We afterwards proceeded to cruise off the south shore of Nova Scotia, making our headquarters for mails, &c., at Isaac's harbour—searching the coast from Arichat to Halifax for illegal lobster fishing, but found practically nothing doing. On October 26, by your instructions, we took up our station west of Halifax, making Lunenburg our headquarters for mails, telegrams, &c., and cruised from Cape Negro to Halifax until by your instructions we moored the ship on November 29 at pier No. 1, H. M. dockyard, Halifax, and awaited your further instructions, keeping a full crew by the ship, carrying on the different drills and other duties, when on December 31, Lt.-Col. Gourdeau, Col. Anderson, chief engineer of the Marine Department, and yourself arrived here to take over the dockyard.

I may state that the season has been uneventful, with the exception of the seizure of the United States trawlers *Ramyah* and *Porthia*. The mackerel fishing, with the United States seiners, has been a failure on this coast this season—yet, our net and drag seine fishermen have done exceedingly well.

I have the honour to be, sir,

Your obedient servant,

C. T. KNOWLTON,

Commanding Cruiser 'Canada.'

To Commander O. G. V. SPAIN, R.N.,
Commanding Canadian Marine Service,
Ottawa.

SIR,—I have the honour to submit to you my annual report of work performed by the Canadian cruiser *Petrel* and *Patrol Boat No. 1*, under my command, for season just closed.

The *Petrel* was wintered at Liverpool, N.S., and commissioned May 1. Cruising between Sambro and Cape Sable, meeting the United States seining fleet off Liverpool on May 19.

We remained on this station till May 27, when we proceeded east calling at Halifax on June 5, picking up the seining fleet again off Isaacs harbour.

We remained cruising off the latter place and White head and as far east as Canso till June 13, when by your order we followed the seiners westward as far as Shelburne to report there.

The seining fleet made poor catches, nearly all the hauls were made off Tor bay and White head.

SESSIONAL PAPER No. 22

The fish were trimming the shores very close from Liscomb to Canso, for two days off Green island whilst cruising on the three mile limit, I could see large shoals of mackerel inside while outside of us sixty sail of seiners standing by ready to take anything that might come their way.

Two hundred and fifteen barrels was the highest catch of any vessel on the Cape shore, as far as I could ascertain.

We arrived at Shelburne on June 20, and reported that the United states seining fleet had left the coast.

Orders were received from yourself at Shelburne to proceed east and take up station off Prince Edward Island, with headquarters at Souris.

June 25. we proceeded east, arriving at Canso on the evening of the 26th; next morning proceeded through the Straits of Canso and on to Pictou, arriving there same afternoon.

At Pictou we fitted out patrol boat No. 1 for the lobster service, also a tender to the *Petrel*. This work being finished, we sailed for Prince Edward Island on July 2, arriving at Souris same day, taking up station there.

We cruised in the Gulf of St. Lawrence till October 26. During this time we patrolled the shores of the island and Northumberland straits, with several trips to Cape Breton and Nova Scotia, to Liverpool and Shelburne.

The bank fishing for cod in the gulf this year was not successful, while the hake fishing was carried on with great success off Souris: as many as thirty sail of small vessels could be seen daily tending their trawls.

The fares of fish being sold fresh at Souris to the Atlantic Fish Company, also to the government fish dryer, at prices ranging from eighty cents to one dollar and twenty cents per hundred pounds.

Mackerel did not show up in any great quantity this year, although some large schools were seen on north side of Prince Edward Island; late in the fall, a few barrels were taken off at East point by the local fishermen, which were of enormous size.

There were five American seiners visited the gulf this season, about August 1. One of these remained till first week in October. During her stay she managed to pick up about one hundred and seventy barrels of fish. I am informed her fare was sold at Gloucester for four thousand dollars lump sum, the other vessels returning home early with very small catches.

I am of the opinion that Northumberland straits is an immense hatchery for mackerel and many other kinds of fish, as I have seen large shoals of mackerel coming out of the east end of the straits in August for several years back. Last year I sailed through twelve miles of mackerel between Cape Bear and Cape George making their way east of the straits. Previous to this there had not been a mackerel seen for months in the gulf.

If the department would give me permission to purchase four mackerel nets and have them properly rigged up and go with the *Petrel* next season and drift in Northumberland straits in places where I believe the mackerel resort, it might be the means of solving the mystery where these valuable fish go after coming down the cape shore in the spring; they disappear at Cape Canso or Scatarie, and they can get no trace of them after that.

The lobster fishing at Prince Edward Island was very good this season. An unusual run of large lobsters, were taken on north side of the island between East point and St. Peter's.

Very little illegal lobster fishing was reported on my patrol. I kept patrol boat No. 1 continually cruising on south side at Cape Bear and Murray harbour. Some trawls were seized by me and confiscated. With this boat cruising over the grounds nearly every day, made it about impossible for them to get any gear out.

I kept her out as late as possible this year, leaving there November 19 for Pictou to be hauled out for the winter. It was reported they started in fishing after the boat

7-8 EDWARD VII., A. 1908

left last year, but I am quite sure that will not be the case this time, as the harbours froze over shortly after she left the island.

After leaving the Gulf of St. Lawrence on October 26, we cruised on south shore of Nova Scotia till November 5, when by your order we proceeded to North Sydney, arriving there on the 10th. The weather after November came in became very boisterous, and the American seiners did not visit Sydney for the fall catch as usual.

On November 13 orders were received to return west to Liverpool, and lay the ship up for the winter. We proceeded to sea at once, calling at Whitehead, Pope's harbour and Halifax, and on to Liverpool, arriving on the evening of the 19th. On the 20th, ship was placed in winter quarters, and paid out of commission on 24th.

My crew was very satisfactory this year. They came from counties of Shelburne, Queen's and Pictou; also from Prince Edward Island. They were all young men, and made every effort to give satisfaction.

The *Petrel* has completed her second year on the Atlantic coast, and has made better time this year than ever before. The speed could be considerably improved on by giving her a bronze propellor.

I have the honour to be, sir,

Your obedient servant,

W. H. KENT,

Commanding Canadian Cruiser 'Petrel.'

LIVERPOOL, N.S., December 17, 1906.

Commander O. G. V. SPAIN, R.N.,

Commanding Fisheries Protection Service of Canada,

Ottawa.

SIR,—I have the honour to submit to you the annual report of the work performed by the cruiser *Osprey* under my command during the season of 1906.

Having received instructions from you during the winter to commission the *Osprey* about the usual time, I proceeded to Shelburne in due time, arriving at that place April 24 and found men busy at work putting the necessary repairs on the vessel. I superintended the work of fitting out, cleaning and painting ship, &c., until May 1 when I called the crew together, had them sign the ship's book and commissioned ship. May 7, finished bending sails and taking stores on board; unmoored ship and anchored in the stream, then remained in the vicinity of Shelburne looking after the lobster fishermen until the 16th when the first of the United States seiners made its appearance.

May 20, proceeded to sea in company with seining fleet, cruising to the eastward.

26th, cruising off Sambro inshore of the seining fleet, consisting of seventy sails.

Continued in company with the seiners, cruising as far east as St. Esprit until June 1 when the last of the seiners proceeded for home.

I may say here that the catch of mackerel this spring was very small, in fact quite a number of the United States vessels went home empty. Our time was then taken up visiting the lobster factories and fish traps, and attending to the various duties in connection with the fisheries until June 24 when we carried away the turnbuckles of the main rigging and had to proceed to Canso for repairs, where we were detained until the 30th, when we again proceeded on our duties.

July 8, acting under your instructions, proceeded to Hawkesbury and had ship hauled on marine slip, cleaned and painted. While there had Mr. Grant measure crew for uniforms.

16th, finished work on marine slip, floated ship and proceeded on our station, cruising between St. Esprit and Liscombe.

During the remainder of the season our time was principally taken up looking after illegal lobster fishing and United States bankers.

SESSIONAL PAPER No. 22

November 26, received instructions from you to proceed to Shelburne and pay off and put ship in winter quarters.

We were detained several days in Shelburne getting the ship stripped owing to wet stormy weather.

With regard to season's catch of fish I am sorry to say that all branches were poor owing principally in the first part of the season to a scarcity of bait. The dog-fish were about as plentiful as usual.

The latter part of the season there was a fairly good run of haddock in the vicinity of Canso, but the weather was so stormy that the boats could not attend them regularly, consequently the catch was small.

The closed season for lobsters was well observed on this coast, with the exception of Dover and vicinity; we find a few there that still persist in trying to fish every fall and it is very difficult to get hold of the parties as they are kept well informed of the cutter's movements and work accordingly. I would recommend that a steam launch be stationed in that vicinity during the closed season as I believe by doing so it would put a stop to this illegal fishing altogether.

I have the honour to be, sir,

Your obedient servant,

JOHN GRAHAM.

Commanding Cruiser 'Osprey.'

C. G. S. 'VIGILANT,'

WALKERVILLE, ONT., December 4, 1906.

C. pt. O. G. V. SPAIN, R.N.,

Commanding Canadian Marine Service,
Ottawa, Ont.

SIR,—I beg to present my second annual report of the work performed by the C. G. S. 'Vigilant.'

On April 14 at 1 p.m. hoisted penant and placed ship in commission and departed down river to Amherstburg, where we took on board 44 tons of coal. On April 15 I seized 125 American gill nets containing a small catch of fish. The nets were 12 miles east of Pelee island and 4 miles north of boundary. We saw two other buoys in neighbourhood, so anchored for the night in nine fathoms of water. On the 16th I seized 42 American gill nets near the former seizure. On the 20th we conveyed the engineer and his wife from Amherstburg to the southeast shoal lightship. On May 21 we departed for Cleveland to have compass adjusted. May 24th, by instructions, the ship was taken to Windsor for the purpose of assisting in celebrating the day. The citizens and other parties were very much disappointed because we could not fire a royal salute. The ship, however, was placed at the disposal of the Minister of Militia for the purpose of conveying the officers to Walkerville where a banquet was given by Messrs. Walker Sons. On June 2, having received instructions to proceed to Middle island to inquire into the cause of the light being out of service, I arrived there at 2 p.m. and found that the lightkeeper had deserted, apparently for over a week. After consulting with parties on Pelee island, I placed John L. Lidwell in charge of the light. I have since visited the light several times and found he was performing his duties very satisfactorily. On the 7th I went to the wreck of the American steamer 'Armenia' and took sextant angles which were subject of a separate report. On July 2, celebrating the day at Port Dover, we dressed ship and, not having a gun, fired a feu-de-joie with rifles and gave an exhibition of drill in the park. On July 10th Messrs. B. Fraser and F. Foster came on board at Kingsville and were conveyed to Middle Ground lighthouse, afterward Mr. Foster was landed on Pelee island. We then departed coastwise for Port Stanley. On July 11 Mr. Fraser inspected the light and fog signal at Long point and proceeded on to Port Colborne. On the 12th at Mr. Fraser's request, I accompanied him, to the lighthouse on the breakwater at Port Colborne to select new location for the range

7-8 EDWARD VII., A. 1908

lights. On July 31st, at the request of the Chief Engineer, Col. Anderson, I examined the crib-work of the Middle Ground lighthouse, sending in a special report. On August 17th I seized 70 American gill nets near Long point. On the 20th I seized 99 American gill nets also off Long point. On September 8 we sighted an American tug lifting nets north of the line. On our approach she ran south across the boundary. We sighted buoy where she had left and started lifting nets. They were fouled on the bottom and we only procured two. On the 21st I seized a small American fishing tug the *William D.*, of Erie, 10½ knots west of the extreme end of Long point. I took the captain on board the ship and logged the distance into shore, he acknowledged he was fishing in Canadian waters. I gave the tug in charge of the customs authorities at Port Dover. On the 25th I took two gentlemen from Port Dover to witness the logging of the distance from Long point to the gas buoy at Erie, as there had been considerable dispute and correspondence with reference to the distance and location of the boundary. On October 2nd I stopped at the wreck of the *Armenia* and took sextant angles, which was reported. I also took angles of the *Chas. Packard*. October 5th, by arrangement, I met Capt. E. Chaytor of the U. S. Revenue Cutter *Morrill* at Erie. He informed me he was instructed by Washington authorities to confer with me as to location of the boundary line as given on the American hydrographic charts. He became convinced that my contention all along was correct and he sent in a very satisfactory report to Washington which has since had a very marked effect upon the actions of the fishermen. I had done what I could to bring this meeting about, being quite convinced that when I had an officer and a gentleman to deal with that there would be no trouble in arranging the matter. Five temporary buoys were placed by Capt. Chaytor on the line as indicated on the above-mentioned chart, and some days afterward I verified their correctness. On the 8th, having received a telegram to meet the Canadian section of the Waterways Commission at Toronto, I departed that evening and returned on the 10th. On 29th, after lying at Kingsville for over a week, the weather moderated sufficiently for me to sweep over the wreck of the *Tasmania* to ascertain if the contractors had completed the work according to contract, all of which was reported to the deputy minister at the time. On November 16th, having received a telegram to meet you at Windsor on the 17th, I proceeded at once to that place where you inspected the ship. November 24th we passed close to the stranded steamer *Conemaugh* near the end of Pelee point and the *Hurlbert* near Leamington. The latter vessel has been released, subject to report. On November 28 I seized 30 American gill nets east of Pelee island and north of boundary. There was too much sea to lower boats, but managed to lift the above number over the ship's side. On December 1, I proceeded to Walkerville to lay ship up in winter quarters.

REMARKS.

In this report I wish to relate a conversation which I had with a Mr. Munson, of Cleveland, who is a fish dealer and owns several fishing tugs. He stated that when I seized some nets belonging to one of his tugs, the customs officer in Cleveland seized his tug, saying that it was in the public press that I had seized the nets in Canadian waters, and fined him a substantial fine. He appealed to Washington, but the authorities there sustained the action of the customs officer.

As I suggested some time ago, could not some arrangement be made with the American government, so that this action might be regularly established at all ports? It would greatly assist in putting down poaching.

There was very much less poaching during the past season than any former year. This is partly accounted for by the strike of the fishermen at Erie and Dunkirk, and also by the fact that the report of Capt. Chaytor of the U.S. S. *Morrill* was very strong in my favour.

Fishing on Lake Erie during the summer in most places was light, but the fall

SESSIONAL PAPER No. 22

catch was better than for some years past, more especially off Port Dover and Port Stanley.

During the season the ship logged 16,582 miles.

I have the honour to be, sir,

Your obdient servant,

E. DUNN,

Commanding C.G.S. 'Vigilant.'

C.G.F. CRUISER 'KESTREL,' November 5, 1906.

Commander O. G. V. SPAIN,

Commanding Canadian Marine Service,
Ottawa, Ont.

SIR,—I have the honour to submit to you my report of the work done by the Canadian Government Fisheries Cruiser *Kestrel*, under my command, patrolling the waters of the coast of British Columbia, for the year of 1906.

Leaving Vancouver on January 3, we cruised south as far as Esquimalt, where we received on board 500 rounds of ammunition from H.M.S. *Shearwater*; we then cruised northward, taking in the different harbours, bays, and fishing stations *en route*.

At noon on the 5th, I swung ship to test our compasses; on the 6th we took on board 90 tons of bunker coal at Union bay.

Leaving here, we continued our cruise northward, visiting all fishing stations as usual, arriving at Port Simpson on the 11th.

At 11 p.m., the same evening, Captain Oliver of the SS. *Nell* reported to me that his steamer had just broken adrift in Chatham sound, from two tugs which had her in tow, and was full of water and drifting a helpless derelict in Chatham straits; he also asked me for my assistance and advice.

I at once offered to do all in my power to help him. Leaving at daylight next morning, we proceeded in search of the vessel, and found her stranded on Ryan point, having during the night driven in over Hodson reef.

As it was blowing a gale at the time, with a high sea running, we could not render any assistance, so returned to Port Simpson and landed Captain Oliver and crew.

The following two days it blew a gale of wind from the North and on the 15th I took Captain Oliver and crew to Port Essington.

Leaving Port Essington I proceeded to Hecate Straits on my regular patrol duties; from the 16th to the 19th we were cruising these waters and vicinity, visiting Butler cove, Refuge cove, and Spiller river.

Leaving here we proceeded to Port Simpson for our mail, where we were detained until the 24th by an exceedingly heavy gale and blinding snow squalls.

Leaving here we cruised south, taking in all stations *en route*, arriving in Vancouver at 3 p.m., on February 1, where I received your orders to proceed to Victoria at once, as I had been appointed one of the assessors to sit on the court of inquiry regarding the loss of the United States steamship *Valencia*.

The *Kestrel* remained at Vancouver, until the 11th, washing out boilers and making slight repairs, &c., and on this date I took her to Victoria where she was under my direct care until my duties as assessor at this port were finished.

On the 28th we started on regular patrol duty, making short cruises among the Gulf islands, and on the 22nd of March, while at Pender harbour, I located a very dangerous uncharted rock which was at once reported to you, and notices were at once issued by the department giving the position and bearings of same.

Leaving here we proceeded to Union for bunker coal; after receiving coal we left for Bon Accord Hatchery, where we took on board 4,000,000 salmon fry for distribution in the rivers and lakes on the west coast of Vancouver island.

Arriving at Euchucklusit we liberated 750,000 fry in the river and leaving here we cruised up Alberni canal to the head where we liberated another 75,000.

We then cruised along the coast to Clayoquot sound, where we deposited the remainder of the fry in Kennedy river.

7-8 EDWARD VII., A. 1908

Leaving here we continued our cruise along the west coast to Cape Scott, calling at the whaling station at Sechart bay, Nootka and other stations en route.

When off Hesquoit in a south east gale, we carried away our rudder stock, but by careful manipulation and good seamanship we managed to continue our cruise and bring the ship home in safety, arriving at Vancouver on April 5.

I immediately notified you of our accident and received orders to dock ship and make repairs; I at once put ship into dock, and on examination found that the rudder stock had been defective and that a new rudder had to be made, thereby necessitating much delay and expense.

Whilst on dock we gave ship a thorough overhauling from keel to trucks, and coming off the dock on the 21st, I immediately got ship ready for sea and on leaving Vancouver on the 23rd we again started on our regular patrol duties.

On the 24th I spoke the steamship *Dauntless*, with shaft broken, but declined assistance; we cruised as far north as Goose island, calling at way stations, and sighting several fishermen en route, on the 27th at 8.30 a.m., I sighted a schooner well in shore, with two dories out, apparently fishing under the lee of Hope island; I immediately gave chase.

At 8.44 he took dories on board and made off shore; at 9.15, I spoke him and made him heave to; this vessel proved to be the motor schooner *Norman Sunde*, of Seattle.

Chief Officer Moore and crew boarded and searched him and found that he had destroyed all evidence of his having been fishing by sinking the gear, fish, &c., and we could not find evidence enough to warrant his seizure outside the limit, as he was now five miles off shore.

I warned him and let him go, he happy, and I disappointed at not having a faster boat.

From here we cruised to Hardy bay, where I inspected the oyster bed planted by Captain Kemp and myself a year ago, but could not find any trace of the oysters.

We again cruised south calling at all the stations, arriving at Vancouver on May 2, and on the 5th we left again, cruising along the west coast, Queen Charlotte sound and Hecate straits, where we remained cruising until the 25th, when we returned south, arriving at Vancouver on the 29th.

After settling up our business here we left on the 4th of June for the west coast where we cruised the remainder of the month.

On the 8th, while cruising in Quatsino sound, I located a rock drying 4 feet at low water where four fathoms was marked on the chart, and again on the 26th while entering Village bay, I located another very dangerous uncharted rock in the entrance of the bay.

Both of these obstructions were reported to you, and 'notice to mariners' was issued respecting said uncharted rocks.

During the early part of July we made a short cruise up to the head of Jarvis inlet, calling at all fishing stations en route, returning on the 8th.

On the 10th we left again for the northern cruising grounds, taking Professor E. E. Prince and Rev. Mr. Taylor, the committee appointed by the Fisheries Commission to inspect and investigate the northern waters, &c.

We called at all stations, visiting all canneries, hatcheries, and fishing stations, as far north as the Nass river, besides doing a lot of dredging in the different harbours, bays, inlets, Hecate straits, Banks island, Works channel, and Dixon's entrance.

Whilst dredging as above stated and when abreast of Tow hill, off the north end of Queen Charlotte islands, we located an extensive bed of very large Scallops lying in a depth of from 9 to 40 fathoms of water, which may have already been reported upon by Professor Prince and Mr. Taylor.

During the above stated cruise I located a very dangerous uncharted rock at the entrance of Prince Rupert harbour.

SESSIONAL PAPER No. 22

I notified shipping as far as I could, but unfortunately two days later the steamship *Camosun* struck on said rock, costing her \$32,000 for repairs; I reported this danger to you on the first opportunity and notice in Notice to Mariners was immediately published giving particulars and naming it 'Kestrel Rock.'

After washing out boilers and finishing our work here we left again on the 7th for another cruise north, taking Mr. Stewart, the chief hydrographer of the Marine and Fisheries Department with us.

We cruised the northern coast visiting all stations, lighthouses and Hecate straits; at Prince Rupert we lay for two days, Mr. Stewart making scientific observations for variations: we then proceeded to Port Essington where Mr. Stewart left us, much to our regret.

From here we cruised southward through Hecate straits, Queen Charlotte sound, and west coast, visiting all way stations; on the 19th at Spiller river I arrested the sloop *Star*, of Seattle, and sent her to Port Simpson to report at the customs.

On the 22nd I sighted one of the large United States steam fishermen in the act of lowering dories to fish, one mile off Mexicano point; I immediately gave chase but had the humiliation of seeing him run away from us, again losing a prize worth at least \$30,000.

Continuing, we cruised down the west coast meeting many fishermen; at Nootka I drove two schooners, the *Yukon* and *Mars*, out of port, they were halibut fishermen in for a good time, but as they had made the acquaintance of the *Kestrel* before, they lost no time in getting out as part of the crew of these vessels were on the *North* when I captured her a year ago.

We continued cruising southward around Vancouver island, arriving at Vancouver on the 29th.

During this cruise we discovered two new and important halibut banks, one off Kyuquot on the west coast, also another which lies off Nootka on the west coast of Vancouver island.

During the month of September we were cruising between Vancouver and Triangle island, which lies away to the westward of Cape Scott at the north end of Vancouver island, visiting the different, bays, inlets, harbours, &c.

On the 17th I seized at Albert bay, the United States schooner *Ragnild*, of Portland, Oregon, for violation of the customs laws, and towed her to Vancouver, where I delivered her to the collector of customs, and made a seizure report of same to the Minister of Customs at Ottawa.

On the 27th we left for a cruise among the gulf islands calling at several stations, also at Victoria.

Returning to Vancouver we again fitted out for a cruise in northern waters taking Mr. E. S. Busby, inspector of customs, and his assistant, Mr. D. M. Stirton, along with us on official duties.

Calling at Union bay for coal, Mr. Busby inspected the customs at this port.

Leaving here on the 18th we proceeded north calling at Alert bay where our official duties were attended to; from here we proceeded to the west coast of Vancouver island as far as Quatsino sound, where Mr. Busby inspected the customs at Winter harbour.

Leaving here we proceeded north to Port Essington, Port Simpson, Maple bay, and Stewart city; returning we called at Port Simpson, from there we went to Ketchikan where we gained much information, both for the Fisheries and the Customs Departments.

Returning south we called at Prince Rupert and way ports, arriving at Vancouver at 8 p.m. on November 5, after a very stormy passage.

REMARKS.

I have divided our cruising grounds into three districts as shown by United States chart No. 7000, district No. 1 having 635 miles of coast line, district No. 2 having 420 miles of coast line, and district No. 3 having 320 miles of coast line; the

7-8 EDWARD VII., A. 1908

above figures do not include the bays, sounds, inlets and coast indentations, simply the straight coast line on this chart.

I have marked the known deep sea fishing banks, also two halibut, one grey cod, and one scollop bank discovered by me during the past summer which I have marked '1906—H.N.'

I have also marked the halibut banks which I discovered during the year 1903, which I named the Kestrel Bank, and Gordon Bank, the former lying off Goose island, which is in district No. 2, and is marked, viz., '1903—H.N.,' the latter bank lies between Ross Spit and Skidigate in district No. 1 and is marked, viz., '1903—H.N.'

During the year 1904 I discovered two Halibut banks, and one black cod bank, the first halibut bank discovered lies off the Walker group, in district No. 2, and is marked 'No. 1, 1904—H.N.,' the second halibut bank discovered during the year 1904 lies off Deer passage, Seaforth channel, in district No. 2, and is marked, viz., 'No. 2, 1904—H.N.'

The black cod bank discovered, lies off Cone island in Finlayson channel, in district No. 2, and is marked, viz., '1904—H.N.'

United States chart No. 7000, outlining districts Nos 1, 2 and 3 showing Deep Sea Fishing banks as above stated, I have mailed addressed to you under separate cover of registered mail.

Referring to the 39,334,329 lbs. of halibut caught during the year 1906 by foreign fishermen in the waters off the coast of British Columbia, I beg to state that said amount is accounted for as follows :—

	Lbs.
The New England Fish Company.. . . .	9,414,330
The Tacoma Fish Company.. . . .	7,946,666
The San Juan Fish Company.... .	3,973,333
Taken by the smaller crafts.. . . .	18,000,000
Total catch.. . . .	39,334,329

The above stated companies employ large boats which operate twelve dories each and fish with from twelve to twenty-four miles of trawls for each steamer.

The 18,000,000 lbs. taken by the forty odd smaller crafts were caught in districts Nos. 2 and 3, mostly in the latter district; these crafts operate from two to four dories each and about one miles of trawls to a dory.

Each and every one of the above craft, frequent and clean their fish in the harbours of British Columbia when the *Kestrel* is not there to prevent this violation of our laws and the destruction of our in-shore fisheries, as it is a well known fact that fish will not frequent waters where dead fish and offal are disposed of.

In connection with the above it might be well to here state that when the foreign fishing vessels (herein referred to) are on the fishing grounds following up the halibut, when setting their trawls they often find that the halibut are not on the grounds, and instead of catching halibut they catch black and grey cod, which valuable fish are thrown overboard and destroyed; not only are tons upon tons of these valuable fish wasted each year, but the fishing grounds are depleted for as I have already stated, fish will not frequent waters where dead fish or offal are disposed of.

I would most respectfully and earnestly recommend that the solution of the predatory fishing in the coast waters of British Columbia is, viz., one first class up to date cruiser, about 200 feet length of keel, with a speed of not less than 20 to 22 knots (not miles) be placed in commission and ready for service within the next six months and be equipped for general service and to carry at least four fast motor launches with which to protect the coast harbours against foreign fishermen cleaning their fish in said harbours.

This cruiser to be followed at the earliest possible date by the construction of two smaller cruisers, about 120 feet in length (fishermen type of vessel) with a speed capacity of 18 knots, each vessel to be equipped with one fast motor launch.

SESSIONAL PAPER No. 22

My reason for asking for this type of vessel is first, that they would be able to put to sea when the fishermen do; second, there are at the present time foreign craft frequenting our waters with a speed capacity of 15 knots, and a cruiser to be of service should not only run as fast as its opponent, but be able to overtake it; this combined with the facts that during the different months of the year the west coast of British Columbia is visited by severe gales which these vessels are liable to be caught in and would have to contend with, it is therefore imperative that none but first class vessels should be put into commission in this service.

My reason for asking that the above stated vessels be put into commission at as early a date as possible is, viz.: During the year 1903 there were 16 United States fishing vessels (three steamers and thirteen schooners) engaged in fishing halibut off the coast of British Columbia.

During the present year the fleet of United States fishing vessels engaged in fishing halibut in the waters of the coast of British Columbia comprises six steamers and forty other vessels which I have been able to locate, making a total of 46 craft, which is an increase of 30 vessels in three years; this combined with the discovery of new fishing grounds accounts for the increased catch of fish, thus the depleted fishing grounds are not noticed.

Some of the halibut banks upon which the halibut were caught in the beginning of the halibut fishing in the coast waters of British Columbia, fifteen years ago, are now depleted, and the fishermen do not fish there.

I would respectfully recommend that all foreign vessels frequenting or entering the harbours, or passing through the coast waters of British Columbia, be required to report inwards and outwards at the nearest customs office, and failing to do so be liable to the penalty provided by the Customs Act, as during the present year I have boarded 21 fishing and two other vessels in British waters (one of which I detained and the other I seized), which were without customs papers of any kind.

If this were done it would be a valuable aid to me in determining the name and number of foreign vessels fishing in the waters off the coast of British Columbia, and also be a detriment to their poaching in said waters.

I would also respectfully urge upon the department the necessity of the above stated cruiser being placed in commission at the earliest possible moment, as at the present rate at which our 'halibut fishing grounds' are being depleted by foreign fishermen as above set forth, in another six years these now valuable fisheries will be fished out and be worthless, and we will have no fishing industry to protect, and a valuable asset to the Government of Canada will have ceased to exist.

I am, sir,

Your obedient servant,

HOLMES NEWCOMB.

Commanding D. C. 'Kestrel.'

FISHERIES INTELLIGENCE BUREAU,

HALIFAX, N.S., January 31, 1907.

Commander O. G. V. SPAIN, R.N.,
Commanding Marine Service,
Ottawa.

SIR,—I have the honour to submit the following list of officers in connection with the Fisheries Intelligence Bureau for the season of 1906.

There were three stations established during the season in the province of Quebec, viz.: Barachois de Mal Baie, in charge of Miss Roxie E. D. Tapp; Bonaventure, with Mrs. R. N. LeBlanc as reporter, and Sandy Beach in charge of Mrs. George Howell.

New reporters were appointed at Escuminac point, N.B., in the person of Thomas Kingston; Captain Benjamin, R. Smith at Port La Tour, N.S., George Hamm at Sambro, N.S., Miss J. A. Trachy at Paspebiac, Que, and N. P. Freeman at Liverpool, N.S., vice Captain J. H. Dunlop, a very capable and efficient reporter, whose demise was recorded July 2.

7-8 EDWARD VII., A. 1908

List of Fisheries Bureau Reporters outside the Civil Service.

Residence.	Name.
Alberton, P. E. I.	David Montgomery.
Arichat, C. B.	J. T. Jean.
Barachois de Malbaie, Que.	Miss Roxie E. D. Tapp.
Bonaventure, Que.	Mrs. R. N. LeBlanc.
Bloomfield, P. E. I.	Edmund D. Kelly.
Canso, N. S.	John E. Cohoon.
Caraquet, N. B.	Mrs. E. Blanchard.
Clark's Harbour, N. S.	J. L. Nickerson.
D'Escousse, C. B.	John P. Gruchy.
Gabarus, C. B.	James Nichol.
Gaspe (Donglstown) Que.	Charles Viets.
Grand Pabos, Que.	Mrs. Mike Murphy.
Grand River, Que.	Mrs. J. Carbery.
Ingonish, C. B.	Godfrey Jackson.
Isaac's Harbour, N. S.	Simon M. Giffin.
L'Anse aux Gascons, Que.	Mrs. A. F. Brotherton.
L'Ardoise, C. B.	J. M. McIsaac.
Long Point Mingan, Que.	A. Maloney.
Lunenburg, N. S.	W. A. Zwicker.
Magdalen Islands, Que.	J. A. LeBourdais.
Main-a-dieu, C. B.	G. W. Dickson.
Malpeque, P. E. I.	Hume Hopgood.
Meat Cove, C. B.	A. B. MacDonald.
Newport Point, Que.	Mrs. M. Muenier.
Paspebiac, Que.	Miss J. A. Trachy.
Percé, Que.	E. G. Tuzo.
Point Escuminac, N. B.	Thomas Kingston.
Point Saint Peter, Que.	Mrs. M. J. Bond.
Port La Tour, N. S.	Capt. Benjamin R. Smith.
Port Malcolm, C. B.	R. C. Proctor.
Port Mulgrave, N. S.	David Murray.
Salmon River, N. S.	Arthur Balcolm.
Sambro, N. S.	George Ham.
Sand Point, N. S.	John A. R. Morrison.
Sandy Beach, Que.	Mrs. George Howell.
St. Ann's, C. B.	Thomas D. Morrison.
St. Adelaide de Pabos, Que.	Mrs. A. LeMarquand.
St. Peter's, C. B.	Angus J. MacCuish.
Seven Islands, Que.	P. F. Vignault.
Shippigan, N. B.	Mrs. M. J. Robichaud.
So. West Pt. Anticosti, Que.	Mr. Z. LeMieux.
Queensport, N. S.	William Knowlan.
Whitehead, N. S.	J. E. Dillon.
Yarmouth, N. S.	F. L. Hatfield.
Port Daniel, Que.	Miss Isabella Sweetman.
Spry Bay, N. S.	Elmer C. Leslie.

List of Fisheries Bureau Reporters who are Government Officials.

Arichat West, C. B.	C. P. LeLacheur.
Cheticamp, C. B.	Chas. F. AuCoin.
Digby, N. S.	J. M. Viets.
Georgetown, P. E. I.	Chas. Owen.
Grand Manan, N. B.	Charles Dixon.
Hawkesbury, C. B.	J. C. Bourinot.
Liverpool, N. S.	J. H. Dunlop (deceased).
"	N. P. Freeman (act'g. collector).
Lockeport, N. S.	J. R. Ruggles.
Louisburg, C. B.	H. C. V. LeVatte.
Mahon, C. B.	Lewis McKeen.
Margaree, C. B.	M. A. Dunn.
Musquodoboit, N. S.	George Rowlings.
Petit-de-Grat, C. B.	P. T. Fougere.
Port Hood, C. B.	F. D. Tremaine.
Lo. East Pubnico, N. S.	J. A. D'Entremont.

APPENDIX No. 14.

REPORT OF THE CANADIAN FISHERIES MUSEUM.

To the Deputy Minister
of Marine and Fisheries.

SIR,—The following report, which I have the honour to submit, embraces not only a general summary of the museum collection, but also descriptive remarks on the vertebrate portion, and more especially on that of the fishes; after the manner of the guides to the galleries of the British Museum.

Numbers meanwhile are omitted, because having made an estimate of how many species of fishes are indigenous to the Dominion, I have provisionally placed the number somewhere between five and six hundred, of which only about one-fifth are as yet represented in the museum; so that should it be the intention of the department to aim at having the collection represented by a full compliment of specimens, the use of numerals just now would eventually be disturbed by the instalment of subsequent acquisitions, as well as of some in hand awaiting determination, as to their respective places in the collection.

During the current year certain additions have been made to this class, some of which were obtained by Mr. Finlayson, inspector of fish hatcheries, at the salmon weirs, St. John, N.B. There have also been added a few specimens of reptiles and birds.

Besides the natural history objects the museum contains the models of a schooner, various vessels, hulls, and canoes; also fishing implements, fish oils, and a large cedar Haida dug-out. These have lately been laid out to advantage by Mr. Urgel Grignon, the caretaker, who has likewise been employed in making the museum an attractive institution.

During the current year the museum has been visited by some 15,500 persons.

The descriptive remarks are based on personal observations in the open field, examinations of specimens in museums and in the laboratory, references to all accessible publications on the subjects treated of, and consultations with naturalists.

Special reference has been made to Drs. Jordan and Evermann's invaluable work: 'The Fishes of North and Middle America,' and to Dr. Günther's 'Introduction to the Study of Fishes.'

The animal kingdom is primarily divisible into various sub-kingdoms, all of which are more or less represented, some entirely so, by creatures which live in the salt and fresh waters. As stated above, the remarks in this report are on the vertebrata, the highest of these sub-kingdoms, the first and lowest class of which are the fishes.

The rest of the report, treating of the invertebrate portion of the collection, remains substantially as it did in that of last year.

SUB-KINGDOM: VERTEBRATA (*Vertebrates*.)

Vertebrates are the highest sub-kingdom of animals. Any group of creatures below them, and above that to which corals and sea anemones belong, are characterized by being morphologically composed of a sort of single tube, which incloses a heart, a digestive track, and nerve centres (often bilateral and ganglionated). A sea-urchin, a worm, a snail, a lobster, a bee, belong to this type. It is needful to extend this ideal illustration, however, in the case of any vertebrate, as, for example, a salmon, a frog, a serpent, an eagle, a seal, or a man, into another tube, which is attached to the first,

and which incloses the spinal system of nerves; so that a vertebrate has, not only a heart, a digestive-track, and nerve centres answering those of invertebrates (and known as the sympathetic nervous system), but in addition the great mass of the cerebro-spinal nervous system.

There are certain creatures, notably the ascidians, or tunicates, popularly known as sea-squirts which, although in the early stages of their life histories manifesting rudiments of a spinal-chord are not universally admitted among the vertebrates. There are few things more interesting to biologists than a study of these.

The little creatures from which the mature ascidians evolve swim actively about like tadpoles, and in fact are just tadpoles in their structure; and possess the elements of a spinal column. But after a while, with the exception of a comparatively few which move freely about in the adult stage, they attach themselves, by their heads, to rocks or other submarine objects, and become permanent fixtures, all their organs undergoing strange modification and atrophy. They are then in fact, in the mature forms, creatures of retrogression, having gone backward instead of forward in the scale of organized beings.

Another remarkable worm-like creature is technically known as *Belanoglossus*. It also (as well as one or two allied forms¹) has a structure 'supposed to be homologous with the notochord,'² and nerve strands.

But without further reference to such forms as the ascidians and *Balanoglossus*, which must be looked upon perhaps as degenerate off-shoots adjacent to the ancestral rootlets from whence the sub-kingdom of vertebrates sprang, and whose proper affinities await more zoological light, we are practically warranted in confining a consideration of the vertebrates to the five classes which they indisputably embrace, viz.: the fishes, batrachians, reptiles, birds and mammals; for all the members of these throughout their lives possess, either in an elementary³ or fully developed condition, a spinal column.

In a typical vertebrate, the brain and spinal chord are protected in a framework composed of a skull, and a chain of bones called vertebræ, in conjunction with which are the bones of the thorax or chest, and those of the scapular arch and pelvis, to which are usually appended the bones of the limbs, but the modifications of the skeleton, including the limbs, in the several classes, are exceedingly varied.

The limbs are ordinarily in two pairs, never more, the anterior and the posterior; and, although endlessly modified, are constructed according to a similar plan. In other words: the pectoral fins of a fish, the wings of a bird, the front legs of a dog, or the arms of a man, are homologous organs. Some vertebrates, for instance, certain fishes (such as eels and the sword-fish) and whales have the anterior pair of limbs only; whilst others (such as serpents, coecilians, and muranoid-eels) are entirely devoid of limbs. The whales and some serpents (such as boas and pythons) however, possess rudimentary pelvic elements. Instances such as the above are due to evolutionary loss of the limbs; but in the limbless lancelets, and may be the cyclostomes (lampreys and hag-fishes) the reverse is the case; the limb as a feature in vertebrate development not having made its appearance until creatures organically higher in the scale of life, than those primitive forms are, were reached.

CLASS: PISCES (FISHES).

Midway, as it were, with the innumerable hosts of invertebrates behind them, and the higher vertebrates in front of them, the Fishes hold rank among the great zoological lineages. No sharp line demarks them entirely from certain batrachians, but they may be characterized as vertebrates so organized as to be enabled to pass the

¹ *Cephalodiscus* and *Rhabdopleura*.

² Drs. Parker and Haswell 'Text Book of Zoology,' vol. II., p. 3.

³ *Amphioxus*.

SESSIONAL PAPER No. 22

whole period of their existence by living and respiring in water. This does not imply, as we shall see, that no fishes exist which cannot for a time live, and even breathe, out of water; nor does it imply that no other vertebrates do not pass the whole of their lives under water, for some batrachians do.

Some one, somewhere, has remarked that it would seem as if this planet had been especially created for fishes, and, indeed when we consider the enormous size of some of them; the prodigious schools or shoals of others; the fact that multitudes of kinds inhabit the ocean, severally, from its surface to its abysmal depths, and at its shores and estuaries, whilst others of brilliant hues dwell among coral reefs; that lakes, rivers and streams team with very varied members of the finny tribe, that a few even dwell in darkness in subterranean rivers, and furthermore that there are some thirteen thousand species of known fishes, this idea might almost be conceded.

Their function of breathing under water leads to a consideration of their respiratory organs—that is the gills. These organs are not homologous to the lungs of other vertebrates, and the lung of a dipnoid fish (see p. 326) is an organ altogether independent of its gills by which it ordinarily breathes. The gills are variously modified: in lampreys and sharks they lead to a number of external openings on either side, but in the higher fishes they are usually in folds, protected by bony opercular covers, forming a pair of clefts, one on either side. The water, charged with free oxygen enters the mouth of the fish, passes on to the gills, and is then expelled through their clefts; and the function of the gills is to arrest the oxygen held in the water in order to oxygenate the blood.

The fins of fishes are of two kinds: the vertical and the paired. The vertical fin may be (but more rarely) a continuity, commencing on the back, proceeding around the tail, and terminating at the vent; or it may be (as is usually the case) broken up into the dorsal, caudal, and anal fins. Certain of the fins, or all of them, are sometimes wanting. The paired fins are the limbs of fishes. The pectorals are the front, the ventrals the hind pair. A few have no pectorals, such as lancelets, lampreys, hag-fishes, and muranoid-eels; and still more have no ventrals.

In teleosts (with a few exceptions) the pectoral arch is joined to the cranium or skull by a bone called the *suprascapula*, but in selachians (sharks and rays) there is no such attachment, the shoulder girdle being free from the head as in other vertebrates. Suspended from the suprascapula is the *scapula*, which in turn gives attachment to the *clavicula*, with an appendage called the *post-clavicula*. The bones of the pectoral fin, or fore limb, in teleosts, are attached to the *clavicula*, and a small bone associated with it 'in some osseous fishes, at least in their immature state' may according to Owen answer to the *humerus* (Owen: 'Anatomy of Vertebrates,' vol. I., p. 165), but that bone is not well defined in fishes. Following this are two flat bones, the under one the *radius*, the upper the *ulna*; to which are attached a series of small ossicles, the combined *carpals* and *metacarpals*; which are followed by the pectoral rays which answer to the anterior digits. The pectoral fins are situated more or less behind the gill apertures.

The situation of the ventral fins differs in the several groups of fishes, and their constituents are not so well defined as are those of the pectorals. In selachians, ganoids and physostomes, they are abdominal, or far behind the pectorals; in many teleosts they are thoracic, or placed below the pectorals; whilst in gadoids and others, they are jugular, or in front of the pectorals. A pair of bones constitutes, in teleosts, the entire pubic arch. These are joined together anteriorly, but diverge towards the right and left fins respectively. To the pubic bones are attached the ventral rays which answer to the posterior digits.

The absence of ventral fins is a more frequent feature than is that of the pectorals. They are wanting in all fishes without pectorals, and in eels, the adult sword-fish (*Xiphias gladius*), in one ganoid (*Calamoichthys calabaricus*), in certain blennies, pipe-fishes, and sea-horses, and in many others.

The fin-rays (either of the paired or vertical fins) are variously constructed, but whether simple, articulated, branched or forming spines, are always associated with the piscine skeleton, and the absence or presence of this or that kind of ray has much to do in determining the relationships of fishes.

The bodies of fishes are very often covered with scales which have been distinguished as placoid, ganoid,¹ cycloid, and ctenoid; the first term, however, is hardly admissible and is being abandoned, the so-called placoid scales being merely 'ossified papillæ of the cutis,'² instead of having their origin, as a true scale, like a feather or a hair, has in grooves of the underlying dermis. Along the sides of many fishes are lines, generally one on either side, called the lateral lines, and the scales which cover them are perforated, forming outlets to what are known as the muciferous ducts, but the lateral lines are variously modified, and in some fishes do not exist at all.

Fishes may conveniently be divided into the following five sub-classes :—

Leptocardii (Lancelets).

Marsipobranchii (Lampreys and Hag-fishes).

Selachii (Sharks, Rays and Chimæras).

Ganoidei (examples: Dipnoids, Sturgeons and Gar-pikes).

Teleostei³ (True-boned fishes, embracing the vast majority of the extant species).⁴

SUB-CLASS : *Leptocardii* (Lancelets).

The Lancelets are the lowest fishes, and some zoologists decline to admit them into the class at all. Their vertebrate characters, however, in certain respects are obvious. True, there is no bony skeleton, but there is a noto-chord which terminates as a point anteriorly just as it does posteriorly. The branchial or gill-clefts are numerous, and lead to a single aperture called the abdominal pore. There is a mouth, preceded by an oral-hood, bordered with cirri or tentacles, also what answers to a rudimentary brain⁵, and a vertical fin. There are some eight species of Lancelets, mostly referable to the genus *Branchiostoma* (otherwise known as *Amphioxus*), which inhabit the coasts of many seas, and which bury themselves in the mud.

SUB-CLASS : *Marsipobranchii* = *Cyclostomata* (Lampreys and Hag-fishes).

A considerable advance is met with in vertebral morphology when we reach the Cyclostomes. The skeleton is cartilaginous. There is in the Lampreys a suctorial and jawless mouth, well furnished with teeth, a pair of eyes, a single medium nostril,

¹ 'This type of scales common in fossil ganoid fishes occurs amongst recent fishes in *Lepidosteus* and *Polypterus* only.' Dr. Günther : Introduction to the Study of fishes, p. 47. Another genus, however, *Calamoichthys*, has ganoid scales, but doubtless Dr. Günther includes it in *Polypterus*.

² Dr. Günther: Ibid, p. 48.

³ No hard and fast line can be drawn in regard to this term, because among ganoids: the gar-pikes (*Lepidosteus*) and *Amia calva* have the skeleton ossified; whereas certain teleosts (salmonoids for instance) have elements of cartilage in the cranium.

⁴ The sub-classes Leptocardii and Marsipobranchii are removed from the class Pisces by Drs. Jordan and Evermann altogether and transferred as two classes by themselves. After their removal they divide the remaining North American Pisces into the sub-classes Selachii, Holocephali and Teleostomi. In this arrangement the Chimæridæ (Holocephali) are removed from the Selachii, and the Teleostomi embrace as two series the Ganoidei and Teleostei. Weighty reasons are advanced by these ichthyologists for this arrangement, and deference is paid to them. On the other hand, Dr. Günther unites the Selachii (including the Chimæridæ) and the Ganoidei in the sub-class Palæichthyes, and leaves the Teleostei by themselves. For the purposes of this report it appears convenient to include the Leptocardii and Marsipobranchii in the class Pisces; and to distinguish the Selachii, Ganoidei and Teleostei, as three sub-classes.

⁵ The lancelets have been spoken of as having no brain; but the 'anterior end of the neuron..... is to be looked upon as the brain, although not distinguishable externally from the remaining portion or spinal cord.' Drs. Parker and Haswell: Ibid, p. 48.

SESSIONAL PAPER No. 22

seven gill apertures on either side, and one or more vertical fins. They live by attaching themselves by their disks to other fishes, and rasping the flesh off with their teeth. Some of the Hag-fishes on the other hand bore their way into the flesh of their victims, and on account of this there is a single gill opening, on each side, placed far back from the head, which communicates with the branchial pouches; but those of the genus *Bdellostoma* have six or more gill apertures on either side.

Lamprey Eel (*Petromyzon marinus unicolor*, De Kay). In formalin. Specimen from old salmon retaining pond, Carleton, N.B.

Silvery Lamprey (*Ichthyomyzon concolor*, Kirtland). In formalin. Specimens from Detroit and Ottawa rivers.

SUB-CLASS: *Selachii* (Sharks, Rays, and Chimæras).

In this sub-class a character is encountered, afterwards ordinarily persistent in vertebrates that of possessing paired limbs. The skeleton is essentially cartilaginous, although there may be 'calcified rings embedded in the sheath of the notochord'¹ (*Chimæra*), or 'completely ossified vertebrae'² (*Batoidei*). The existing sharks probably number about one hundred and fifty species, but there swarmed in the seas from the Devonian to the Permian periods tribes of sharks, now extinct, which differed materially in structure, from that which their extant relations manifest. All existing sharks have five³ external gill openings, on either side, save the Notidanoids, which have six or seven. The existing known Rays number about one hundred and sixty species. They differ from the sharks (but there are gradations between the two groups) in their depressed form and greatly expanded pectoral fins, in having the eyes placed on the top of the head, whilst the mouth is inferior or more or less opposite the eyes. All possess five external gill openings, on either side, which are situated on the lower surface. None have an anal fin. The Chimæras, of which there are some six or seven species, differ, among other respects, from the Sharks and Rays in having the gill apertures covered with folds of the skin, somewhat after the manner of opercula. Many of the Selachians are viviparous, but many others are ovo-viviparous.

Porbeagle (*Lamna cornubica*, Gmelin). Mounted. Male and female specimens, from Gulf of St. Lawrence.

Picked Dog-fish (*Squalus acanthias*, L.). In formalin. Specimen from vicinity of Digby, N.S.; newly born specimen from salmon weirs, St. John, N.B.; and two foetal specimens. Mounted. Specimens from Gulf of St. Lawrence.

Californian Dog-fish (*Squalus sucklii*, Girard). Mounted. Specimen from British Columbia.

Starry Ray (*Raja radiata*, Donovan). In formalin. Specimen, and egg-capsule, from Atlantic coast of Canada.

Barn-door Skate (*Raja lævis*, Mitchill). Mounted. Specimen from New Brunswick.

Chimæra or Rat-fish (*Hydrolagus collii*, Lay and Bennett). In formalin. Female specimen from near Gervis inlet, Strait of Georgia, B.C. Mounted. Male and female specimens from British Columbia.

SUB-CLASS: *Ganoidei* (Ganoids).

Long before the arrival of the teleosts, or the fishes of recent times, during Palæozoic and Mesozoic ages, the waters of the globe were indwelt by multitudes of fishes known as Ganoids. The survivors of this formerly extensive group, are comparatively

¹ Drs. Parker and Haswell: Ibid, p. 176.

² Dr. Günther: Ibid, p. 67.

³ In the Nurse Sharks (Ginglymostomidae) the 4th and 5th gill apertures are close together.

few in number, there being probably less than forty remaining species, which are embraced in the following families with their genera.

Sirenidæ: *Lepidosiren*, *Protopterus*, *Ceratodus*.

Polyodontidæ: *Polyodon*, *Psephurus*.

Acipenseridæ: *Acipenser*, *Scaphirhynchus*, *Kessleria*.

Polypteridæ: *Polypterus*, *Calamoichthys*.

Lepidosteidæ: *Lepidosteus*.

Amiidæ: *Amia*.

The surviving ganoids are of world wide distribution, all the great zoo-geographical regions of the globe, save the Indian region,¹ having their representatives. All are fresh water fishes, but certain sturgeons resort to the sea. The first three genera comprising the family Sirenidæ, mentioned above, are known as the dipnoids, because in addition to the usual gills of fishes, they are provided with a rudimentary lung, so that they are able to breath atmospheric air during the dry seasons of the countries to which they belong. There is a single species of *Lepidosiren* (*L. paradoxa*) of the Amazons and Paraguay; of *Protopterus* there is the mud-fish (*P. annectens*), and I understand another species, discovered a few years ago, both of tropical Africa, and two species of *Ceratodus* (*C. miolepis* and *C. fosteri*), both of Queensland, Australia.² There is one species of *Polyodon* the paddle-fish (*P. spathula*) abundant in waters of the middle and southern United States, but a few specimens have been found in Canadian waters, viz.: two from Lake Huron, near Sarnia, Ont. (one of which is mounted and in the collection of the museum. See below), one from Lake Helen, Nepigon river, Lake Superior, and one recorded from Lake Erie.³ The paddle-fish (save in the young),⁴ is toothless, so that its name 'Polyodon' is a misnomer. Its body is rotund in form, and there are no bony scutes as in *Acipenser*, but there may be 'minute stellate ossifications.'⁵ The head is furnished with a long paddle-shaped process, and the opercular cover provided with an elongated and tapering flap; so that measuring from the tip of the paddle to the tip of the flap, the head occupies a considerable proportion of the full length of the fish. There is a fulcrum over the heterocercal tail, above the caudal fin. The eyes are small, and placed at the base of the paddle. The genus *Psephurus*, is closely allied to *Polyodon*, and has also one species (*P. gladius*) of the Hoangho and Yantsekiang rivers of China. *Acipenser* contains at least one-half of the known species of surviving Ganoids, five of which, viz., the common sturgeon (*A. sturio*), the rock sturgeon (*A. rhicundus*), the white sturgeon (*A. transmontanus*), the green sturgeon (*A. medirostris*), and the short-nosed sturgeon (*A. brevirostris*) are North American, the first mentioned also belonging to western Europe, and all of which save, perhaps, the last mentioned are found in Canada. Of other old world species may be mentioned the sterlet (*A. ruthenus*), Gùldenstadt's sturgeon (*A. gùldenstedtii*) of Europe and Asia, the Hausen (*A. huso*) of rivers of the Black sea and the Sea of Azov, and the Chinese sturgeon (*A. sinensis*).

Of the genus *Scaphirhynchus* there is one species, the Shovel-nose sturgeon (*S. platyrhynchus*) of the Mississippi valley (and which possibly, as in the case of *Polyodon spathula*, see above, may yet be found in Canada, in the waters of the great lake system). *Kessleria*⁶ is closely allied to *Scaphirhynchus*, and has one or two species of Central Asia.

¹ Dr. Günther entertains the thought that the Indian region may yet yield its representative ganoid: Ibid, p. 223.

² Fuller remarks on the Dipnoids may be found in an article entitled 'An African Dipnoid Fish,' by the author, in 'Ottawa Naturalist,' Vol. XV., Nov., 1901, p. 184.

³ Fuller remarks on the occurrence of this species of fish in Canadian waters may be found in an article entitled 'Paddle-nosed Sturgeon in Ontario,' by Prof. Prince, Commissioner of Fisheries, in 'Ottawa Naturalist,' Vol. XIII., Oct., 1899, p. 153.

⁴ Prof. Prince: Ibid, p. 157.

⁵ Dr. Günther: Ibid, p. 362.

⁶ Very often this genus is included in *Scaphirhynchus*.

SESSIONAL PAPER No. 22

The sturgeons are quintagonal in form, and along the margins are five rows of osseous scutes: one dorsal, two lateral, and two ventral. The head is continued anteriorly into an elongated snout. The mouth is inferior and there are no teeth. In front and well forward from the mouth, transversely, are four barbels or feelers. The nostrils are double, and near the anterior border of the orbit. The eyes are of moderate size, inclined to small. The body more or less tapers towards the tail. The ventral fins, as in all ganoids are abdominal. The dorsal is placed very far back. The caudal is heterocercal, and along the upper edge of the tail is a long fulcrum. The flesh of the sturgeons is esteemed; caviare is made from the ovaries and roe, and isinglass, a kind of glue, from the air-bladders.

The genus *Polypterus* has one species (*P. bichir*) of tropical Africa, and *Calamoichthys* has also one species (*C. calabaricus*) of old Calabar. This fish is related to *P. bichir*, but is dwarfed and more elongated, and said to be without ventral fins—a thing unique among ganoids. *Lepidosteus* has four, perhaps five, known species, one *L. sinensis* of China, and the following confined to America, viz., the common Gar-pike (*L. osseus*), the short-nosed Gar (*L. platostomus*), the alligator Gar (*L. tristoechus*), and a variety, perhaps not to be distinguished as a species from the last mentioned (*L. tropicus*). The common Gar-pike is locally common in parts of Canada and the short-nosed Gar also occurs. The Gar-pikes are cylindrical in shape. Unlike the sturgeons and paddle-fish they are covered with ganoid or lozenge-shaped scales. The mouth is prolonged into a sort of beak, which bears both conical and rasp-like teeth—the former in a single row along the edges of the jaws—the latter in a series behind these. The beak, or snout, composes the jaws, and is formed of a modification of the maxillaries and præmaxillaries above, and of the dentaries and articularies below. The skeleton is ossified. *Amia* has one species: the dog-fish or bow-fin (*A. calva*) of Canada and the United States. It also is locally common in parts of the Dominion, and I have found it along with the Gar-pike, in great plenty in the Bay of Quinté. Like the Gar-fishes the dog-fish has the skeleton ossified. Its body is covered with cycloid scales, and it possesses a gular-plate between the rami of the mandible instead of the usual urohyal.

Thus out of twelve known world wide genera of Ganoids, four, viz., *Polyodon*, *Acipenser*, *Lepidosteus* and *Amia*, are found in Canada, and as said above *Scaphirynchus* may yet be recorded.

Paddle-fish (*Polyodon spathula*, Walbaum). Mounted. Specimen from Lake Huron, near Sarnia, Ont. Valuable because it is one of only a few specimens of this species which have been found in Canadian waters in recent years. (See above.)

Common Sturgeon (*Acipenser sturio*, L.). In formalin. Specimen from Lake Deschene.

Rock Sturgeon (*Acipenser rubicundus*, Le Sueur). In formalin. Specimens from Detroit river, St. Lawrence river, Lancaster, Ont., and a specimen which lived for ten or twelve years in the aquarium of the Ottawa Fish Hatchery. Mounted. Specimens from Lake Erie and River St. Lawrence.

Common Gar-pike (*Lepidosteus osseus*, L.) In formalin. Specimens from Belleville, Bay of Quinté; and Ottawa river. Mounted. Specimens from Lake Deschene, Lake Ontario, and Gatineau river, P.Q.

Dog-fish or Bowfin (*Amia calva*, L.). In formalin. Specimens from Belleville, Bay of Quinté; and Ottawa river. Mounted. Specimens from Lake Ontario.

Mud-fish (*Protopterus annectens*). Exotic. A fish of tropical Africa. Specimen in formalin, and its capsule of mud.

SUB-CLASS: *Teleostei* (Teleosts).

The Teleosts embrace the vast majority of fishes, there being between twelve and thirteen thousand known species. The skeleton is essentially ossified, but there are

sometimes cartilaginous elements. The gills are generally in folds, and protected by an opercular covering. The optic nerves decussate or cross each other. Most are oviparous, but there are ovo-viviparous teleosts. Their value to man is incalculable: 'the harvest of the sea' yielding herrings, mackerels, codfishes, salmonoids and many others, which fishermen jeopardise their lives in procuring; whilst the angler beguiles his leisure hours beside some stream or lake, tempting a silvery trout or gamey bass with baited hook.

The structure of the teleost cranium has long engaged the attention of ichthyologists, and a knowledge of its constituent parts is of great value in the general study of osteology. A short outline of its main features, therefore, is given here. 'In the analysis of the fish's skull,' said Owen, 'it is best to begin at the back part,¹ and in my own studies I have found this method to be the most convenient. At the base of the skull is the *basioccipital*. It has a concavity (filled in conjunction with that of the first vertebra to which it attaches, with a gelatinous substance) and supports a pair of bones, one on either side, called the *exoccipitals*, resting upon which is another pair called the *paroccipitals*, and crowning the whole is a bone, often crested, called the *supraoccipital*. Five of these bones, viz.: the exoccipitals, the paroccipitals, and the supraoccipital, form an arch, which rests upon the basioccipital, and the aperture, thus formed, through which the nerve mass passes to the brain is known as the *foramen magnum*. In some teleosts, e.g., the cod-fish, connected with the exoccipital is a partially ossified or gristly ear-capsule, called the *petrosal* (= the *squamosal*) in which is lodged an otolith. The floor of the cranium consists of the basioccipital and two other bones called the basisphenoid and the vomer. The *basisphenoid* is a long and narrow bone, into which the basioccipital posteriorly, and the vomer anteriorly are wedged. Upon it are supported a pair of bones called the *alisphenoids*, on which are the *mastoids*, over and above which, in turn, are the *parietals*. In front of these are a pair of small plates: the *orbitosphenoids*, adjoining which are the *post-frontals*, and placed on the roof of the cranium a pair of bones called the *frontals*. At the front part of the skull is the *vomer* over which are the *prefrontals*, and over and above these are the *nasals*. Situated also at the front part of the skull is a pair of bones called the *turbinals*. In front of the cranium are two pairs of bones, one the *maxillaries*, the other the *premaxillaries*, which often bear teeth, and which help to form the upper jaw. The gills, on either side, are covered and protected by the opercular flap, which consists of the *operculum*, a scale like, triangular shaped bone; which is joined to the præoperculum and hyomandibular; the *suboperculum*, an oblong bone placed below the operculum; the *interoperculum*, often an oval shaped bone, placed below the præoperculum, and attached by ligament to the mandible; and the *præoperculum*, a strong, curved, angular bone, anterior to the other pieces, which not only serves as a support to the flap, but forms a part of the mandibular arch. This bone is often serrated along the edge of its posterior margin. Besides the præoperculum, the bones of the mandibular arch or suspensorium, consist of the *hyomandibular* (= the *epitympanic* or *temporal*), which articulates with the postfrontal and mastoid bones of the cranium, and with the operculum; the *metapterygoid* (= the *pretympanic*) a flat shaped bone; the *mesotympanic* (= the *symplectic*) a narrow styliform bone, placed behind the metapterygoid, and between the hyomandibular and quadrate; and the *quadrate* (= the *hypotympanic*) a triangular bone, with a condyle to which the mandible is attached. The bones of the mandibular arch, then, form a chain connecting the mandible with the cranium. Bridging the space between this arch and the prefrontal and vomer, are the following bones: the *entopterygoid* (= the *mesopterygoid*) a thin and, sometimes, semi-transparent bone, which is joined to the pterygoid and palatine, and which, moreover, forms a floor of the orbit; the *pterygoid*, a long and slender sickle shaped bone, joined to the anterior part of the quadrate, and reaching the palatine; and the *palatine*, also often beset with teeth, and which adjoins the prefrontal and vomer. These bones are known as the

¹ Owen: *Ibid.*, p. 94.

SESSIONAL PAPER No. 22

palatine-arch. A chain of bones called the *infraorbital ring* is arranged around the lower border of the orbit, the first of which is large, and bears the name of the præ-orbital, and the others, a few in number, are called the *sub-orbitals*. The bones of the mandible, or those of the lower jaw, consist on either side of the *dentary*, a strong and as the name implies, a tooth bearing bone, deeply hollowed out for the reception of the triangular process of the articular; the *articulary*, which is connected by ligament to the maxillary, and which articulates by a concavity with the quadrate; and the *angular*, a small superficial bone. The dentaries are united by symphysis. Within the excavation of the dentary is an unossified cylindrical process known as *meckle's cartilage*. There remain to be mentioned, in connection with the bones of the head those of the hyoid and branchial arches. Attached to the hyomandibular is the *stylohyal*, from which the other bones of the hyoid arch, called the *epihyal*, the *ceratohyal* and the *basihyal* are suspended: the last-mentioned is formed of two pieces. To the epihyal and ceratohyal are attached the *branchiostegals*. The basihyal gives support to a bone called the *glossohyal* (which enters the tongue), as well as to a vertical, compressed bone called the *urohyal*. This last is also connected by ligament to the anterior part of the pectoral-arch. A medium chain of bones (few in number) called the *basibranchials* support on either side the bones of the branchial arch, which are distinguished as the *hypobranchial*, the *ceratobranchial*, the *epibranchial*, and the *upper* and *lower pharyngeal*. The foregoing is characteristic of the teleost cranium and its appendages, but there are manifold modifications.

The Teleosts are divisible into many orders. Remarks on such as are represented in the museum are given in this report.

ORDER: Nematognathi.

This extensive order embraces the Siluroids or Cat-fishes, the majority of which live in fresh-water, but some are marine. They have the first few anterior vertebrae coalesced, forming a single bone; there is no sub-operculum; and the maxillaries are rudimentary, and are the bases, as a rule, of a pair of long barbels. The dorsal and pectoral fins are usually armed with strong spines. There are no scales, but in some the skin is covered with bony scutes. The Siluroids are best represented in South America, but North America has a great number. Canada has a limited number, all of which have an adipose fin. Europe has a single species: the Wels (*Silurus glanis*). The Electric Cat-fishes (*Malapterurus*) of Africa have an electric organ, by which they have the power to give electric shocks. Many, if not all, of the Siluroids take care of their young, and 'the male of some species of *Arius* carries the ova about with him in his capacious pharynx.'¹

FAMILY: *Siluridae* (Cat-fishes).

Horned Pout or Common Bull-head (*Ameiurus nebulosus*, Le Sueur). In formalin. Specimens from Healy's Falls, Northumberland county, Ont.; Rideau canal, Ont.; Lake Ontario; and Gilmour's Mills, P.Q., near Ottawa.

Stone Cat (*Noturus flavus*, Rafinesque). In formalin. Specimen from Detroit river, near Sandwich, Ont.

ORDER: *Plectospondyli*.

This the most extensive order of fresh-water fishes, embraces the Cyprinoids; which, like those of the preceding, have the four anterior vertebrae coalesced. The skin, with exception of a few scaleless forms, is covered with cycloid scales, and the

¹ Dr. Günther: Ibid, p. 163.

fins have soft rays only. The order is divisible into a number of families; two of which *Catostomidæ* (Suckers) and *Cyprinidæ* (Carps and Minnows), occur in Canada. The former has numerous; the latter few pharyngeal teeth, but there are other distinctive characters.

FAMILY: *Catostomidæ* (Suckers).

Buffalo Fish (*Ictiobus bubalus*, Rafinesque). Mounted. Specimen from Lake Winnipeg.

Lake Carp (*Carpiodes thompsoni*, Le Sueur)!. Mounted. Specimen from Lake Erie.

White Sucker (*Catostomus commersonnii*, Lacépède). In formalin. Specimens from Healy's Falls, Northumberland County, Ont.; and from vicinity of Ottawa. Mounted. Specimens from Lake Winnipeg.

Common Red-horse (*Moxostoma aureolum*, Le Sueur). In formalin. Specimens from Detroit river, near Sandwich, Ont. Mounted. Specimens from Lake Ontario.

FAMILY: *Cyprinidæ* (Carps and Minnows).

Carp (*Cyprinus carpio*, L.). An introduced species from Europe—a very inadvisable introduction. Mr. Hurley, fishery officer, says it is infesting the Bay of Quinté in thousands. In formalin. Specimen from Bay of Quinté.

Red-bellied Dace (*Chrosomus erythrogaster*, Rafinesque). In formalin. Specimens from Clear Lake, Lepreaux, Charlotte County, N.B.

Minnow (*Leuciscus neogæus*, Cope). In formalin. Specimens from St. John county, N.B.

Spawn Eater (*Notropis hudsonius*, De Witt Clinton). In formalin. Specimens from near Belleville, Ont.

Minnow (*Couesius plumbeus*, Agassiz). In formalin. Specimens from St. John County, N.B.

ORDER: *Apodes*.

This order embraces the Eels: elongated teleosts of serpent-form or cylindrical shape. They are devoid of premaxillaries, have no ventral fins, and the vertical fin, when present, is continuous. The order is divisible into various families, some of which, such as *Anquillidæ*, have rudimentary scales embedded in the skin; whilst others are scaleless. The eels of the family *Muranidæ* have neither pectoral nor ventral fins.

FAMILY: *Anguillidæ* (True Eels).

American Eel (*Anguilla chrysypa*, Rafinesque). In formalin. Specimens from vicinity of Ottawa and Lake Ontario. Mounted. Specimens from St. Lawrence river, Richelieu river, and Lake Ontario.

ORDER: *Isospondyli*.

This order is one of the most important to man. It includes the Clupeoids and Salmonoids: fishes of wide distribution. Many are marine, some of which are anadromous or live in the sea, but ascend rivers to spawn; whilst many again are confined to fresh water. They are soft-rayed fishes, and as a rule the scales are cycloid. The Clupeoids embrace the herrings and their allies, some of which, such as the true herrings (*Clupea*) have no lateral line, and they differ markedly from the Salmonoids in the absence of an adipose fin. The Salmonoids are recent teleosts, and 'seem to

SESSIONAL PAPER No. 22

have put in their appearance in Post-pliocene times.'¹ 'The instability of the specific forms and the lack of sharply defined specific characters, may be in part attributed to their recent origin, as Dr. Günther has suggested.'²

FAMILY: *Hiodontidæ* (Moon-eyes).

Moon-eye or Toothed Herring (*Hiodon tergisus*, Le Sueur). In formalin. Specimens from Detroit river, near Sandwich, Ont.

FAMILY: *Clupeidæ* (Herrings).

Common Herring (*Clupea harengus*, L.). In formalin. Specimens from Digby, N.S.; and Atlantic coast of Canada.

Gaspereau or Alewife (*Pomolobus pseudoharengus*, Wilson). In formalin. Specimens from Gulf of St. Lawrence.

American Shad (*Alosa sapidissima*, Wilson). In formalin and mounted. Specimens from Gulf of St. Lawrence.

FAMILY: *Salmonidæ* (Salmon and their allies).

Common White-fish (*Coregonus clupeiformis*, Mitchill). In formalin. Specimens from Detroit river, near Sandwich, Ont. Mounted. Specimens from Lake Ontario, Lake Erie, Lake Simcoe, Lake Superior and Lake Winnipeg.

Cisco or Lake Herring (*Argyrosomus artedii*, Le Sueur). In formalin. Specimens from Detroit river, near Sandwich, Ont.

Tullibee (*Argyrosomus tullibee*, Richardson). Mounted. Specimens from Northwest Territories.

Dog Salmon (*Onchorynchus keta*, Walbaum). Mounted. Specimen from British Columbia.

Quinnat (*Onchorynchus quinnat*,³ Günther). Mounted. Specimens from British Columbia.

Atlantic Salmon (*Salmo salar*, L.). In formalin. Specimens from Restigouche river; Tadousac, P.Q., and Manitoulin island. Mounted. Specimens from Restigouche river; Halifax N.S.; and Lake Ontario.

Ouananiche (*Salmo salar ouananiche*, McCarthy). In formalin. Specimens from Lake St. John, P.Q.

Steel-head (*Salmo gairdneri*, Richardson). In formalin. Specimen from Fraser river, B.C. Mounted. Specimen from British Columbia.

Rainbow Trout (*Salmo irideus*, Gibbons). In formalin. Specimen from Bedford, N.S. (Imported from the Pacific slope). Mounted. Specimen from British Columbia.

Great Lake Trout (*Cristivomer namaycush*, Walbaum). 'The Salmon Trout is an inhabitant of the Great Lake region, and other bodies of fresh water. Its colour is gray, with spots of a lighter gray, the dorsal and caudal fins being marked with spots of a darker hue. It is, however, subject to great variation, and although all the varieties bear the specific name of *namaycush*, there is considerable reason for the popular distinctions such as gray-trout, salmon-trout, Great Lake-trout, and Mackinaw-trout. But structurally it has not appeared to ichthyologists that there are sufficient distinctions to warrant the separation of varieties into different species. As to size, individuals of three feet or more long are recorded, but such fish are very

¹ Günther. Ibid, p. 201.

² Drs. Jordan and Evermann: 'Fishes of North and Middle America,' Vol. I., p. 469.

³ At the risk of tampering with rules of priority, I presume to call this fish, after Dr. Günther, *O. quinnat*, instead of using the ungainly appellation of *O. tschawytscha*.

exceptional, and one of about two feet or less is a large specimen. The salmon trout prefers the deeper parts of the lake: approaching the shoals, in the fall of the year, for the purpose of spawning. It is carnivorous, preying largely upon other fishes.¹ In formalin. Specimens from Rock lake, Haliburton county, Ont. (result of the planting of the fish fry); Smoke lake and Cranberry lake, Algonquin park, Ont.; Lake Huron; and Rideau lake, Ont. Mounted. Specimens from Lake Ontario; province of Quebec; Manitoba; Georgian bay; Lake Memphremagog; and Lake Metapedia.

Speckled or Brook Trout (*Salvelinus fontinalis*, Mitchill). 'The Muskoka river is frequented by the Speckled or Brook Trout, which species of fish differs markedly from the salmon trout in the absence of a toothed crest, or bony projection, on the vomer; and in the lack of a band of teeth on the hyoid bone; each of which characters is possessed by the latter. The speckled trout manifests great variability of size and colour, purely regulated, it would seem, by environment, for it inhabits streams, lakes and even the sea.'² In formalin. Specimens from head of Muskoka river, Algonquin park, Ont.; Pickanoch, near Gracefield, P.Q.; Lake Pembino, Lievre river, P.Q.; Lake St. Germain, P.Q.; Gatineau district, near Ottawa; Green lake, P.Q., and St. John river, N.B. Mounted. Specimens from St. John river, N.B.; Restigouche river; Moisie river, P.Q.; Lake Superior; and Nepigon river.

FAMILY: *Argentinidae* (Smelts and their allies).

Capelin (*Mallotus villosus*, Müller). In formalin. Specimens from Gulf of St. Lawrence.

American Smelt or Ice-fish (*Osmerus mordax*, Mitchill). In formalin. Specimens from vicinity of Digby, N.S., and Lac des Isles, Gatineau district, P. Q. (land-locked variety). 'Whilst engaged in some fisheries matters in the month of May, 1903, I found some specimens of the American Smelt floating dead on the surface of the water of Lac des Isles, in the Gatineau district, P.Q. It is known that this species of fish exists land-locked in fresh water lakes in New Brunswick, Nova Scotia, and in the state of Maine, but its occurrence in a lake so far away from the sea as Lac des Isles, is perhaps worthy of mention. The specimens are dwarfed and perhaps may be regarded as a sub-species: otherwise the external characters appear to agree with the ordinary form of *Osmerus mordax*.'³

ORDER: *Haplomi*.

This order contains four families; viz.:—Umbridae (Mud Minnows), Luciidae (Pikes), Poeciliidae (Killi-fishes), and Amblyopsidae (Blind-fishes). These families, save the third, have a very limited number of species. Those of the family Luciidae are large or medium sized; otherwise the rest are mostly very small fishes. In fact, to this order, perhaps, the smallest of all fishes belong: the male of *Heterandria formosa* measures only three-fourths of an inch, and some of the males of *Gambusia affinis* only half an inch in length. Of the Pikes there are some six determined species, confined to the fresh waters of North America, except the Common Pike (*Lucius lucius*⁴) which also belongs to Europe and Asia. The largest species, and the largest fish of the order, is the well known Maskinonge (*Lucius maskinongy*). The Pikes are voracious but not active fishes, and lurk in the water for their prey

¹ Author: 'Observations of Animals Native in the Algonquin National Park,' 'Ottawa Naturalist,' Nov., 1902, p. 156.

² Author Ibid, p. 159.

³ Author: 'Ottawa Naturalist,' June, 1906, p. 50.

⁴ The former genus *Esox* is broken into owing to its having included fishes entirely unrelated to each other. I therefore, but reluctantly, employ the name to *Lucius* instead of *Esox* for the pikes.

SESSIONAL PAPER No. 22

among weedy places. They have the dorsal fin placed very far back near the caudal, and opposite the anal. There are specimens of three of the species in the museum, and as I am frequently asked the question: 'how are they to be distinguished?' the following distinctive character may be pointed out.

Green Pike (*L. reticulatus*)—cheeks and opercles completely covered with scales.

Common Pike (*L. lucius*)—cheeks completely: upper parts of opercles only covered with scales.

Maskinonge (*L. maskinongy*)—upper parts of cheeks and opercles only covered with scales.

The Killi-fishes number many species, mostly very small; few exceeding six inches in length. The sexes are often unlike, and many are ovo-viviparous. The fishes of this order often have the head as well as the body covered with cycloid scales.

FAMILY: *Luciidae* (Pikes).

Green Pike (*Lucius reticulatus*, Le Sueur). In formalin. Specimen from Brome lake, P.Q.

Common Pike (*Lucius lucius*, L.). In formalin. Specimens from Sharbot lake, Ont.; Detroit river, near Sandwich, Ont.; Gilmour's mills, Ottawa river, P.Q.; and Lac des Isles, Gatineau district, P.Q. Mounted. Specimens from Lake Ontario, and Northwest Territories.

Maskinonge (*Lucius maskinongy*, Mitchill). Mounted. Specimen from Lake Deschene, near Britannia, Ont.

FAMILY: *Poeciliidae* (Killi-fishes).

Common Killi-fish (*Fundulus heteroclitus*, L.). In formalin. Specimens from Bay of Fundy, N.B.

Killi-fish (*Fundulus diaphanus*, Le Sueur). In formalin. Specimens from St. John river, N.B.

ORDER: *Synentognathi*.

This order embraces a few families which agree in having the lower pharyngeal bones united, and the 'scapula suspended to the cranium by a post-temporal bone, which is slender and furcate.'¹ The scales are often deciduous. The family Scombro-socidae is represented in the museum by a specimen of the Saury (*Scombrosox saurus*). The Sauries are elongated fishes with prolonged jaws, somewhat like those of the Gar-pike, but the lower jaw is longer than the upper. Between the dorsal and caudal and the anal and caudal fins are a series of finlets, as in mackerels.

FAMILY: *Scombrosocidae* (Sauries).

Saury (*Scombrosox saurus*, Walbaum). In formalin. Specimen from Atlantic coast of Canada.

ORDER: *Hemibranchii*.

This very limited order embraces a few families, which are chiefly represented by Gasterosteidae (Sticklebacks) and Fistulariidae (Trumpet-fishes). There are specimens of several species of the former in the museum collection. The Sticklebacks are scaleless, and the skin is either naked or covered on the sides with bony scutes. Owing to 'the prolongation of the pubic bones which are attached to the humeral arch,'² the

¹ Drs. Jordan and Evermann: Ibid, Vol. I., p. 707.

² Dr. Günther: Ibid, p. 504.

ventral fins, which are modified as spines, have a sub-abdominal position. Preceding the dorsal fin are few or many dorsal spines, and the anal fin is preceded by a spine. The Sticklebacks are pugnacious little fishes, and often construct nests in which the eggs are hatched.

FAMILY: *Gasterosteidae* (Sticklebacks).

Brook Stickleback (*Eucalia inconstans*, Kirtland). In formalin. Specimen from Stittsville, Ont.

Nine-spined Stickleback (*Pygosteus fungitius*, L.). In formalin. Specimen from Lac des Isles, Gatineau district, P.Q. Specimens from Fullerton, collected during expedition of ss. *Neptune*, 1903-4.

Common Eastern Stickleback (*Gasterosteus bispinosus*, Walbaum). In formalin. Specimen from estuary, Magaguadavic river, St. George, N.B.

Stickleback (*Apeltes quadracus*, Mitchill). In formalin. Specimens from Quaco, St. John county, N.B.

ORDER: *Lophobranchii*.

This order receives its name from the character of the gills which are tufted, instead of laminated, or in folds, as they are in the great majority of fishes. There is one North American family: *Syngnathidae*, which embraces the Pipe-fishes and Sea-horses. The Pipe-fishes are very elongated and slender in form. They have no scales, but are covered with bony plates forming a dermal skeleton. The snout is prolonged into a tube. The males have a ventral-pouch in which the eggs are contained until hatched. The Sea-horses share some of the characters of the Pipe-fishes, but have a head resembling that of a horse, an occipital crest, a curved neck, and a prehensile tail by which they attach themselves to marine objects such as sea-weeds.

FAMILY: *Syngnathidae* (Pipe-fishes and Sea-horses).

Great Pipe-fish (*Siphostoma californiense*, Storer). In formalin. Male and female specimens from coast of British Columbia.

Sea-horse (*Hippocampus hudsonius*, De Kay). Dried specimen from Atlantic coast of Canada.

ORDER: *Acanthopteri*.

This vast order embraces the great majority of extant fishes. Provisionally it has been divided into many sub-orders and groups, some of which are well defined, but 'until the anatomy or at least the osteology of every family and sub-family is known, much doubt must remain as to the proper allocation of such group.'¹ (Gill). As a rule, allowing for modifications, the ventral fins are thoracic, or sometimes jugular; some of the fins have strong spines in addition to soft rays; and the scales are ctenoid, or cycloid, or sometimes awanting.

Salmoperca: This small sub-order contains only two known species referable to two genera: *Percopsis* and *Columbia*. The remarkable fish known as the Sand Roller or Trout Perch (*Percopsis guttatus*) 'combines with ordinary Salmonoid characters the structure of the head and mouth of a Percoid.'² It has, locally, rather a wide distribution. Its only known ally: *Columbia transmontana* is a fish of the Columbia river basin. Both species have ctenoid scales, the central fins abdominal, and an adipose fin.

¹ Drs. Jordan and Evermann: Ibid, Vol. I., p. 780.

² Drs. Jordan and Evermann: Ibid, Vol. I., p. 784.

SESSIONAL PAPER No. 22

FAMILY: *Percopsidæ* (Trout Perches).

Sand Roller or Trout Perch (*Percopsis guttatus*, Agassiz). In formalin. Specimens from Tweed and Belleville, Moira river, Ont.

Percosoces. This sub-order embraces a few families represented in North America by: *Atherinidæ* (Siversides), *Mugilidæ* (Mulletts), and *Sphyranidæ* (Barracudas). The scales are cycloid, and the ventral fins abdominal, each with a spine. The Siversides have a silvery band along each side, but no lateral line. They have two dorsal fins, the first of which has flexible spines, and the second soft rays.

FAMILY: *Atherinidæ* (Siversides).

Silverside (*Menidia notata*, Mitchill). In formalin. Specimens from Atlantic coast of Canada.

Ammodytoidea. This small group embraces the Sand-launces (*Ammodytes*). These elongated fishes have minute cycloid scales, no ventral fins, no spines on any of the fins, the single dorsal and anal very long and low, and the lateral lines are dorsally situated.

FAMILY: *Ammodytiidæ* (Sand Launces).

Sand Launce (*Ammodytes americanus*, De Kay). In formalin. Specimens from Gulf of St. Lawrence.

Scombroidei. We now reach a group of great importance to man; the well known Mackerels belonging here. There is a great diversity of form in the Scombroids, and great extremes of size, and they embrace many very distinct families. The specimens in the collection of the museum belong to the families: *Scombridæ*, *Xiphiidæ*, and *Stromateidæ*. *Scombridæ* embraces the Mackerels. They have the ventral fins thoracic, the scales cycloid and minute, the first dorsal with feeble spines, and finlets between the dorsal and caudal, and between the anal and caudal. Of *Xiphiidæ* there is only one species the Sword-fish (*Xiphius gladius*) which has no ventral fins and no scales in the adult. It is one of the largest of fishes. Its so called sword is a prolongation of the upper jaw: 'forming a sword which is flattened horizontally and composed of the consolidated vomer, ethmoid, and premaxillaries.'¹ *Stromateidæ* embraces the Fiatolas, represented in the museum by the Dollar-fish (*Poronotus triacanthus*). These are compressed in form, the ventral fins are rudimentary or wanting, and the scales small and cycloid. In general the Scombroid fishes are so constructed as to enable them to move very rapidly through the water. The presence or non-presence of an air bladder even in closely related members of this group is in keeping with their varied characters: *Scomber scombrus* has no air bladder, whilst *S. colias* has.

FAMILY: *Scombridæ* (Mackerels).

Common Mackerel (*Scomber scombrus*, L). In formalin. Specimens from Gulf of St. Lawrence, and Prince Edward Island.

Oceanic Bonito (*Gymnosarda pelamis*, L). In formalin. Specimen from Atlantic coast of Canada.

Tunny (*Thynnus thynnus*, L.). Mounted. Specimen from Saguenay district. Weight, some 400 lbs.

FAMILY: *Xiphiidæ* (Sword-fishes).

Sword-fish (*Xiphius gladius*, L.). Two swords from Atlantic coast of Canada.

¹ Jordan and Evermann: *Ibid*, vol. I., p. 893.

FAMILY: *Stromateidæ* (Fiatolas).

Dollar-fish (*Poronotus triacanthus*, Peck). In formalin. Specimens from Atlantic coast of Canada.

Percoidæ. This is another very extensive group embracing many families of typical Acanthopterygians. The ventral fins are thoracic, usually with five branched rays, and supported with a spine, the first dorsal and the anal with strong spines, and the scales ctenoid; but there are exceptions to some of these characters. The families represented in the museum are Centrarchidæ (Sun-fishes and Black Bass), Percidæ (Perches and their allies), and Serranidæ (Sea Bass). The last mentioned is very rich in number of species, which are cosmopolitan in their distribution, and well represented in North America. The Sun-fishes are very beautifully coloured. The Black Bass, of which there are two species: the Small-mouthed (*Micropterus dolomieu*) and the Large-mouthed (*M. salmoides*) are great favourites with anglers, especially the former. The Sea Bass are mostly marine, hence the name, but there are fresh water kinds. Some are of great size, being six feet or more in length.

FAMILY: *Centrarchidæ* (Sun-fishes).

Calico or Grass Bass (*Pomoxis sparoides*, Lacépède). In formalin. Specimens from Rideau canal, near Ottawa; Lewis' dam, vicinity of Ottawa; Gilmour's mills, P.Q., near Ottawa; and Rideau river, Ont. Mounted. Specimen from Lake Ontario.

Rock Bass (*Ambloplites rupestris*, Rafinesque). In formalin. Specimens from Detroit river, near Sandwich, Ont.; Bay of Quinté, Ont.; Sharbot lake, Ont.; from near Hog's Back, vicinity of Ottawa; Port Dover creek, Lake Erie, and Kingston Mills, Ont. Mounted. Specimens from Lake Ontario, and province of Quebec.

Blue Sun-fish (*Lepomis pallidus*, Mitchill). In formalin. Specimens from Kingston Mills, Ont.

Common Sun-fish (*Eupomotis gibbosus*, L.). In formalin. Specimens from Kingston Mills, Ont. Mounted. Specimens from Bay of Quinte.

Small-mouthed Black Bass (*Micropterus dolomieu* Lacépède). In formalin. Specimens from Rideau lake, Ont.; Christy's lake, near Perth, Ont.; Belleville, Ont.; Detroit river, near Sandwich, Ont.; Sharbot lake, Ont.; and Lac des Isles, Gatineau district, P.Q. Mounted. Specimens from Bay of Quinte, Ont.

Large-mouthed Black Bass (*Micropterus salmoides*, Lacépède). In formalin. Specimens from Lake Scugog, and Healy's falls, Northumberland county, Ont.

FAMILY: *Percidæ* (Perches and their allies).

Pike-perch, or Dore (*Stizostedion vitreum*, Mitchill). In formalin. Specimens from Detroit river, near Sandwich, Ont. Mounted. Specimens from Rideau lake, Ottawa river, Lake Erie, and Bay of Quinte.

Sauger (*Stizostedion canadense*, Smith). In formalin. Specimen from Gilmour's Mills, P.Q., near Ottawa.

Yellow Perch (*Perca flavescens*, Mitchell). In formalin. Specimens from Ottawa river; Detroit river, near Sandwich, Ont.; from mouth of stream leading out of Porcupine lake into Ragged lake, Algonquin National Park, Ont.; Port Dover, Ont.; Healy's falls, Northumberland county, Ont.; Lac des Isles, Gatineau district, P.Q., and Port Dover creek, Lake Erie.

FAMILY: *Serranidæ* (Sea Bass).

White Bass (*Roccus chrysops*, Rafinesque). Mounted. Specimen from Lake Erie.

Striped Bass (*Roccus lineatus*, Bloch). In formalin and mounted. Specimens from Miramichi river.

SESSIONAL PAPER No. 22

White Perch (*Morone americana*, Gmelin). In formalin. Specimens from Atlantic coast of Canada.

A series of fishes known as Croakers, which are embraced in the family Sciaenidae, follow the Percoidea. This family is represented in the museum by the Sheepshead or Fresh-water Drum (*Aplodinotus grunniens*), a fish which agrees with those of the following sub-order in having the lower pharyngeal bones united together. It has large otoliths, and gives forth a drum-like sound, readily heard above water. 'M. Dufossé has investigated very thoroughly the physiological causes of these sounds, which appear to depend largely upon the action of the air bladder.'¹

FAMILY: *Sciaenidae* (Croakers).

Sheepshead of Fresh-water Drum (*Aplodinotus grunniens*, Rafinesque). Mounted. Specimen without locality given.

Pharyngognathi. This sub-order containing two North American families: Labridae (Wrasses) and Sparidae (Parrot Fishes) has the lower pharyngeals united into a single bone. The scales are cycloid, or in some weakly ctenoid. It is represented in the museum by specimens of the Cunner (*Tautoglabrus adspersus*).

FAMILY: *Labridae* (Wrasses).

Cunner (*Tautoglabrus adspersus*, Walbaum). In formalin. Specimens from Gulf of St. Lawrence. Two dried specimens from Drummond's Dump, near Pictou, N.S.

Loricati=*Cataphracti*. This sub-order 'is distinguished by a single peculiar character, the extension of the third suborbital bone across the cheek to or toward the preopercle.'² It embraces a number of very varied families, some of which are represented in the museum.

FAMILY: *Scorpenidae* (Rock Fishes).

Snapper (*Sebastes marinus*, L.). Mounted. Specimen from Atlantic coast of Canada.

Black-banded Rock-fish (*Sebastes nigrocinctus*, Ayres). In formalin. Specimen from British Columbia.

FAMILY: *Hexagrammidae* (Greenlings).

Rock-trout of Green-cod (*Hexagrammus decagrammus*, Pallas). Mounted. Specimen from Esquimalt Harbour, B.C.

Cultus Cod (*Ophiodon elongatus*, Girard). In formalin and mounted. Specimens from Victoria, Vancouver Island.

FAMILY: *Cottidae* (Sculpins).

Grubby (*Acanthocottus æneus*, Mitchill). In formalin. Specimen from Atlantic coast of Canada.

Common Sculpin (*Acanthocottus octodecimspinosus*, Mitchill). In formalin. Specimen from Gulf of St. Lawrence.

¹ G. Brown Goode: American Fishes, p. 137.

² Drs. Jordan and Evermann: Ibid, vol. II., p. 1756.

7-8 EDWARD VII., A. 1908

Three-lobed Blepsias (*Blepsias cirrhosus*, Pallas). In formalin. Specimen from coast of British Columbia.

Sea Raven (*Hemitripterus americanus*, Gmelin). In formalin. Specimens from Atlantic coast of Canada.

FAMILY: *Agonidae* (Sea Poachers).

Alligator Fish (*Aspidophoroides monopterygius*, Block). In formalin. Specimen from Ungava bay. Two dried specimens from Gulf of St. Lawrence.

FAMILY: *Cyclopteridae* (Lump Fishes).

Lump Fish (*Cyclopterus lumpus*, L.). In formalin. Specimen taken in salmon weirs, St. John harbour, N.B.

FAMILY: *Liparidae* (Sea Snails).

Sea Snail (*Neoliparis atlanticus*, Jordan and Evermann)? In formalin. Specimen from Atlantic coast of Canada.

Discocephali. This sub-order contains one family: Echeenidae (the singular Remoras). On the top of the head is a suction disk, said to be a modification of the spinous dorsal fin by which they attach themselves to sharks, vessels, or other floating objects, and so are conveyed from one place to another.

FAMILY: *Echeenidae* (Remoras).

Remora or Sucking Fish (*Remora remora*, L.). In formalin. Specimen from Atlantic coast of Canada.

Blennioidea. This is an extensive group, embraced in a few families of which Blenniidae (Blennies and their allies), Cryptacanthodidae (Wry-mouths), and Anarhichadidae (Wolf-fishes) may be mentioned.

FAMILY: *Cryptacanthodidae* (Wry-mouths).

Ghost Fish (*Cryptacanthodes maculatus*, Storer). In formalin. Specimen from Atlantic coast of Canada, and specimen from salmon weirs, St. John harbour, N.B.

FAMILY: *Anarhichadidae* (Wolf Fishes).

Wolf Fish (*Anarhichas lupus*, L.). In formalin and mounted. Specimens from Gulf of St. Lawrence.

Ophidioida. This is another extensive group, intermediate between the preceding, and the following sub-order. It embraces elongated and compressed fishes, with the ventral fins jugular or awanting.

FAMILY: *Zoaridae* (Eel-pouts).

Thick-lipped Eel-pout (*Zoarces anguillaris*, Peck). In formalin. Specimen from Gulf of St. Lawrence. Two dried specimens from Gaspé bay, P.Q., and off Paspébiac, Bay Chaleur.

Vahl's Lycodes (*Lycodes vahli*, Reinhardt)? In formalin. Specimen from Ungava bay.

SESSIONAL PAPER No. 22

Anacanthini. This sub-order is of great importance to man. It embraces three families, viz.:—*Merlucciidae* (Hakes), *Gadidae* (Cod-fishes and their allies), and *Macrouidae* (Grenadiers). The ventral fins are jugular, the scales cycloid, sometimes small and deciduous, and the vertical fins very varied; in some, e.g., the cod-fish, comprising three dorsals, two anals, and the caudal.

FAMILY: *Merlucciidae* (Hakes).

Hake (*Merluccius bilinearis*, Mitchell). In formalin. Specimen from vicinity of Digby, N.S. Mounted. Specimen without locality given.

FAMILY: *Gadidae* (Cod-fishes and their allies).

Pollock or Coal-fish (*Pollachius virens*, L.). In formalin. Specimens from vicinity of Digby, N.S.

Tom-cod (*Microgadus tomcod*, Walbaum). Mounted. Specimen from Halifax, N.S.

Common Cod-fish (*Gadus callarius*, L.). In formalin. Specimens from Gulf of St. Lawrence and Digby, N.S. Mounted. Specimens from Gulf of St. Lawrence, and Halifax, N.S.

Haddock (*Melanogrammus aeglefinus*, L.). In formalin. Specimen from Gulf of St. Lawrence. Mounted. Specimen from Halifax, N.S.

Burbot or Ling (*Lota maculosa*, Le Sueur). 'In Ragged lake, in deep water, we found a Ling or Burbot, which species of fish is the sole fresh water representative of the *Gadidae*, or the fishes of the cod family, in our Dominion.¹ The ling is elongated in shape, having two small barbels at the nostrils, and a longer one at the edge of the lower jaw. There are two dorsal fins, the first very short and the second very long; and one anal fin which corresponds with the second dorsal in structure and plan. The caudal fin is barely attached to the second dorsal and anal, and is rounded at the extremity. The ventral fins, as in the cod and haddock, are jugular, or placed before the pectorals. The ling has scales, but they are very minute and embedded in the skin, so that casually it might be mistaken for a scaleless fish.'²

In formalin. Specimens from Ragged lake, Algonquin Park, Ont.; Swan river, near Vernon, B.C.; Rock lake, Haliburton county, Ont.; Lake des Chene, Ottawa river; and Healy's falls, Northumberland county, Ont. Mounted. Specimens from Lake Ontario, Lake Huron, and Lake Winnipeg.

Cusk (*Brosmius brosme*, Müller). In formalin and mounted. Specimens from Atlantic coast of Canada.

Heterosoma. This sub-order embraces the Flat-fishes and has close affinities to the preceding, but the form is very compressed, both eyes are on the same side of the head, and the blind side upon which the fish lies is whitish like the ventral part of most other fishes. The ventral fins are more or less thoracic, not jugular as in the preceding sub-order. The newly hatched flat-fishes are symmetrical, with an eye on either side, but very soon the head undergoes a distortion.

FAMILY: *Pleuronectidae* (Flat-fishes).

Halibut (*Hippoglossus hippoglossus*, L.). 'Found in all northern seas.'³ In formalin. Specimens from Gulf of St. Lawrence and vicinity of Digby, N.S. Mounted. Specimen from Gulf of St. Lawrence, and specimen from Victoria, B.C.

¹ The tomcod (*Microgadus*) might be considered an exception, but it is anadromous (or merely ascends rivers to spawn) its environment, ordinarily, being in salt or brackish water.

² Author: Ibid, p. 158.

³ Drs. Jordan and Evermann: Ibid, vol. III., p. 2611.

7-8 EDWARD VII., A. 1908

Rough Dab (*Hippoglossoides platessoides*, Fabricius). Mounted. Specimens from Gulf of St. Lawrence.

Great Flounder (*Platichthys stellatus*, Pallas). Body covered with stellate tubercles instead of scales. In formalin. Specimens from British Columbia.

ORDER: *Plectognathi*.

The fishes of this order exhibit remarkable modifications of structure. The maxillaries and premaxillaries, and the dentaries and articularies are consolidated forming single pieces; the gill-apertures are small openings in front of the pectorals; and the vertebræ are few in number. The order is divisible into a number of sub-orders with their families, the species of which are variously protected with prickles, polygonal scutes, spinigerous scales, or a tessellated skin.

FAMILY: *Ostraciidæ* (Trunk Fishes).

Spotted Trunk Fish (*Lactophrys bicaudalis*, L.). Exotic. A fish of the West Indies. Dried specimen without locality given.

ORDER: *Pediculati*.

The fishes of this order depart from the usual piscine type by having the 'carpal bones notably elongate, forming a kind of arm (pseudobrachium) which supports the broad pectoral.'¹

FAMILY: *Lophiidæ* (Fishing Frogs).

Angler or Fishing Frog (*Lophius piscatorius*, L.). In formalin. Specimen from salmon weirs, St. John harbour, N.B. Bones from Digby, N.S.

CLASS: *Batrachia* (Batrachians).

The Batrachians are remarkable for the transformation which the most of them undergo. There is first the larval or tad-pole stage, when the breathing function, as in fishes, is carried on by gills. This stage is gradually changed, the gills eventually disappearing, and the breathing function afterwards is performed by lungs. In some, however, the gills are retained throughout life—the Menobranchus (*Necturus maculatus*) for instance—and lungs are never acquired by such. Again, there are certain ovo-viviparous Batrachians, the larval stage of which is undergone during the existence of the embryo in the oviduct.² In this class the five digital limb is first met with. Batrachians are confined to tropical and temperate latitudes, and are divisible into the following three orders:

Apoda (Coecilians, or Limbless Batrachians).

Caudata (Salamanders and their allies, or Tailed Batrachians).

Ecaudata (Frogs and Toads, or Tailless Batrachians).

The following mentioned specimens of Batrachians are preserved in formalin. Specimens of the Leopard Frog (*Rana virescens*), of the Wood Frog (*Rana sylvatica*), of the Green Frog (*Rana clamata*), and of the American Toad (*Bufo americanus*), from the vicinity of Ottawa; of the Bull Frog (*Rana catesbiana*), from Wakefield, P.Q.,

¹ Drs. Jordan and Evermann: *Ibid*, vol. III., p. 2712.

² 'The young of the Black Salamander (*S. atra*) possesses long plum-like external gills during its existence in the oviduct, shedding them before birth': Parker and Haswell: *Ibid*, p. 289.

SESSIONAL PAPER No. 22

and Belleville, Ont.; of the Common Tree Toad (*Hyla versicolor*), from Brennan's hill, Gatineau district, P.Q.; and of Menobranchus (*Necturus maculatus*) from the Detroit and Ottawa rivers. Specimens of the last mentioned species sometimes pass through the water pipes, dead or alive, of the Ottawa fish hatchery.

CLASS: *Reptilia* (Reptiles).

Although Reptiles agree with fishes and batrachians in being what is termed 'cold-blooded,' they differ from these and agree with birds and mammals in never breathing during any period of their lives by gills, but always by lungs. They further differ from the two former and agree with the two latter in the possession during the development of the embryo of what are known as an amnion and an allantois. At the base of the skull there is a single occipital condyle (at least in all the extant orders), as in birds, with whom in many other essential particulars they closely agree. Notwithstanding the fact that there are two of the existing orders of reptiles very numerous in species (there being some sixteen hundred serpents and some nineteen hundred lizards¹), there are many orders of the class (such as the Dinosaurians and Pterodactyles) which are entirely extinct, and which, along with the predecessors of some of the surviving orders, were the dominant vertebrates during Triassic and Jurassic ages; and there can be no doubt that the modern representatives of the class (the most of them at least) are the result of extreme modifications of structure, which their ancestors gradually underwent in struggling to survive amid stupendous changes in the physical conditions of the globe. The crawling serpents, the latest to appear of the reptiles, thoroughly manifest this.

The extant Reptiles are divisible into the following five orders, viz.:

Rhynchocephalia (*Sphenodon punctata*,² the Tuatara of the Maoris: the only surviving species).

Chelonia (Turtles and Tortoises).

Crocodylia (Crocodiles and their allies).

Lacertilia (Lizards and Chameleons).

Ophidia (Serpents).

This class is represented in the museum by specimens of the Snapping Turtle (*Chelydra serpentina*), of Blanding's Tortoise (*Emys blandingii*), of the Mud Turtle (*Chrysemys picta*), a few of which are living, from various parts of Ontario; and a few serpents.

Foreign to Canada are a few specimens of the Alligator (*Alligator mississippiensis*), one of which is living.

CLASS: *Aves* (Birds).

The organisation and intelligence of birds assign them a place high in the scale of the animal kingdom, and we could hardly witness in nature any living creatures more fully endowed with variety and beauty. The splendour of their colours, the grace of the forms of most of them, the warbling notes which issue from the throats of many of them, their adaptation to thrive in all sorts of environments, the extremes of size which they exhibit, and the gifts which a few kinds possess of mimicry and even of speech, all tend to stimulate our interest in them. Yet varied and numerous in kind as birds are, they exhibit no such extremes of form as those to be found among mammals or reptiles and fishes. Among mammals we could hardly conceive any creatures outwardly more unlike than an elephant and a giraffe, a kangaroo and a chimpanzee, or a whale and a bat; but amongst birds there is no such great morphological diversity. If, for

¹ According to Dr. Boulenger there are 1,639 valid species of serpents, 1,893 of true lizards and 76 of chameleons. 'Catalogue of Snakes in the British Museum,' vol. III., p. VI.

² = *Hatteria punctata*.

instance, a humming bird were enlarged to the size of an ostrich, and the two placed side by side, the former would be seen to possess a very long bill, strongly developed wings, and feeble legs and feet; and the latter to have, comparatively, a short bill, poorly developed wings, and very powerful legs and feet; yet in such extremes of form no such departure from a general type would be manifest as that which mammals display. In other words, birds might be illustrated by a great cluster of flowers closely adjacent to each other on a bush, whilst mammals, reptiles and fishes would, respectively, according to this illustration, more resemble branches beset with flowers here and there, with occasional minor clusters only. A distinguishing thing about birds is the possession of feathers. This covering is peculiar to the class, and all birds possess them. Birds are well distinguished from reptiles to which in certain essential features, they are related, not only by this covering, but also on account of the structure of the heart which vitally affects the temperature of the blood; and the manner in which the fore pair of limbs is modified into wings. The hind pair of limbs has not departed so much from the original type as the wings have done. No bird has less than two toes on each foot,¹ and none have more than four: four indeed is the ordinary number.

The morphological similarity of the avian structure, just pointed out, is after all a mere matter of comparison; and it is indeed a long way from the ungainly penguin, with its scale-like feathers, to the tiny warbler, perched in some top-most twig of a tree in the forest; and there is hardly any kind of environment, whether water or land, marsh or rocky cliff, prairie or wooded dell, where birds are not to be found.

There are entire orders of birds, the members of which are all aquatic in their habits, and with these, in this report, we have mostly to do; yet in the vast assemblage of terrestrial orders, we occasionally meet some raptorial or insessorial bird, which whilst accepting some rocky or sylvan retreat for its resting place resorts to the lake or the stream in pursuit of its prey.

The mounted aquatic birds are mostly exhibited in a central case, and are here mentioned according to the orders to which they respectively belong.

ORDER: *Pygopodes* (Grebes, Divers, and Awks). Specimens of the Red-necked Grebe (*Colymbus holboellii*) the Horned Grebe (*Colymbus auritus*), the Dabchick (*Podilymbus podiceps*), the Great Northern Diver (*Urinator imber*), the Red Throated Diver (*Urinator lumme*), the Puffin (*Fratercula arctica*), the Black Guillemot (*Cepphus grylle*), the Murre (*Uria troile*), the Razor-billed Auk (*Alca torda*), and the Dovekie (*Alle alle*).

ORDER: *Longipennes* (Gulls, Terns, and their allies). Specimens of the Ivory Gull (*Gavia alba*), the Great Black-backed Gull (*Larus marinus*), the American Herring Gull (*Larus argentatus smithsonianus*), Bonaparte's Gull (*Larus philadelphia*), and the Arctic Tern (*Sterna paradisæa*).

ORDER: *Steganopodes* (Toti-palmate Birds). Specimens of the Gannet (*Sula bassana*), the Common Cormorant (*Phalacrocorax carbo*), and the Double-crested Cormorant (*Phalacrocorax dilophus*).

ORDER: *Anseres* (Mergansers, Ducks, Geese, Swans, and Flamingoes).

Specimens of the American Merganser or Goosander (*Merganser americanus*), the Red-breasted Merganser (*Merganser serrator*), the Hooded Merganser (*Lophodytes cucullatus*), the Green-winged Teal (*Anas carolinensis*), the Blue-winged Teal (*Anas discors*), the Pin-tail Duck (*Nafla acuta*), the Wood-Duck (*Aix sponsa*), the Golden-eye (*Glucionetta clangula americana*), the Buffle-head (*Charitonetta albeola*), the Long-tailed Duck (*Clangula hyemalis*), the Harlequin Duck (*Histrionicus histri-*

¹ The true ostriches (*Struthio*) alone among birds have only two toes on each foot.

SESSIONAL PAPER No. 22

onicus), the American Eider (*Somateria dresseri*), the American Black Scoter (*Oidemia americana*), the Surf Scoter (*Oidemia perspicillata*), and the Ruddy Duck (*Erismatura rubida*).

ORDER: *Herodiones* (Herons, Ibises, and their allies).

Specimens of the American Bittern (*Botaurus lentiginosus*), the Great Blue Heron (*Ardea herodias*), the Great White Egret (*Ardea egretta*), the Little White Egret (*Ardea candidissima*), and the Green Heron (*Ardea virescens*).

ORDER: *Alectorides*=*Paludicolæ* (Cranes, Rails, and their allies).

Specimens of the Virginia Rail (*Rallus virginianus*), the Florida Gallinule (*Gallinula galeata*), and the American Coot (*Fulica americana*).

ORDER: *Limicolæ* (Shore Birds).

Specimens of the Red Phalarope (*Crymophilus fulicarius*), the Northern Phalarope (*Phalaropus lobatus*), the American Woodcock (*Philohela minor*), the Marbled Godwit (*Limosa fedoa*), the American Black-tailed Godwit (*Limosa hæmastica*), the Yellow Shanks (*Totanus melanoleucus*), the Esquimaux Curlew (*Numenius borealis*), the Black-bellied Plover (*Charadrius squatarola*), the Golden Plover (*Charadrius dominicus*), and various Snipe and Sandpipers.

Of aquatic raptorial birds there are specimens of the Bald-headed Eagle (*Haliaeetus leucocephalus*), and the Osprey (*Pandion haliaëtus*), and there is also a specimen of the Belted Kingfisher (*Ceryle alcyon*).

Worthy of mention, and interesting as a coastwise insessorial, is a prepared skin, with the nest and a set of four eggs of the Ipswich Sparrow (*Ammodramus princeps*) from Sable island, Nova Scotia.

A series of the eggs of the Murre (*Uria troile*) mostly from the Bird Rocks off the Magdalen islands, is laid out in a flat table case, and manifests the very varied coloration of the eggs of that species of bird.

CLASS: *Mammalia* (Mammals).

The Mammals stand at the summit of the animal kingdom, and include man himself. They differ from other vertebrates in some marked particulars. Their young are nourished by their mothers with milk; there are two occipital condyles, instead of only one, as in reptiles and birds (but the batrachians agree with the mammals in having two condyles); there is a muscular diaphragm which separates the chest from the abdomen; the red corpuscles of the blood are non-nucleated; there is no quadrate, but the mandible articulates directly with the squamosals; they have usually a hairy covering; and they are all viviparous, excepting a few: the monotremes, which are oviparous. The majority are land animals, but there are many aquatic kinds. The Cetaceans (whales and their allies) and Sirenians (manatees and dugongs) live permanently in water, never coming ashore: the former in the sea, and the latter among aquatic vegetation in rivers, bays, and estuaries; whilst the seals spend the most of their time in water, where they feed, and resort to the land mostly in order to breed. Besides the seals, there are many other aquatic carnivores, such as otters and minks; and many aquatic rodents, such as beavers and muskrats. There are also aquatic mammals of other orders, the remarkable Platypus or Duck-bill (*Ornithorynchus paradoxus*) of the Australian region, for instance.

Although agreeing in essential particulars, mammals, as already pointed out, are exceedingly varied in form; also in size, and in adaptability to environment. Owing

to this fact any endeavour to arrange the orders which the Mammalia embrace must to more or less arbitrary; but they are primarily divisible into the following three sub-classes, viz.:—

Prototheria (Monotremes: the Platypus and Echidnas of the Australian region).

Metatheria (Marsupials: examples Kangaroos, Wombats, and Opossums).

Eutheria (Placentals: embracing the great majority of extant mammals).

The collection contains specimens of the Common Porpoise (*Phocæna communis*) from the Gulf of St. Lawrence, a tusk of the Narwhal (*Monodon monoceros*) from the Hudson bay, the scapulæ of a Whitewhale or Beluga (*Delphinapterus leucas*) from near Digby, N.S., of the Harbour Seal (*Phoca vitulina*), the Ringed Seal (*Pagomys foetidus*), and the Hooded Seal (*Pagophilus grænlandicus*), from the the Gulf of St. Lawrence; of the Fisher (*Mustela pennanti*) from Ontario, of the Mink (*Putorius vison*), of the Otter (*Lutra canadensis*), of the Beaver (*Castor canadensis*), and of the Musk Rat (*Fiber zibethicus*) from Ontario. A specimen of the last mentioned species approaches an albino in colour, and was obtained last spring at the Rideau river in the vicinity of Ottawa.

There are also specimens of some terrestrial mammals, chief among which, ornamenting the walls, are mounted heads of the Moose (*Alce alces*), of the Wapiti (*Cervus canadensis*), of the Red Deer (*Cervus virginianus*), and of the Woodland Caribou (*Rangifer tarandus*).

The remainder of the report treats of the invertebrate portion of the collection, which is substantially as it stood before; the asterick again indicating that such specimens were collected during the expedition of the ss. *Neptune*, 1903-4.

Ascidians or Tunicates.

The museum contains a few specimens of ascidians of the following species:—*Boltenia bolteni* and *Halocynthia pyriformis* from Metis, P.Q., and *Pelonaia arenifera* from Richibucto, Straits of Northumberland. Two specimens of *Boltenia* sp.* one from Port Burwell, the other from Fullerton, were dredged during the expedition of the ss. *Neptune*, 1903-4.

Crustaceans.

The decapods embrace specimens of *Cancer amæus* from the Bay of Fundy and Bay Chaleur, of *Chionæctes opillia* from the Magdalen islands, of *Hyas¹ araneus* from Paroquet, P.Q., and the Magdalen is'ands, of *Panopeus*, sp. and *Epialtus productus* from Vancouver island, of *Eupagurus*, sp.* from Fullerton, of *Homarus americanus* from Nova Scotia, of *Crangon vulgaris* and *Hippolyte fabricii* from Metis, and of *Sabinea septemcarinata* and *Spirontocaris spinus* from Bradell Bank off Prince Edward Island. There is also a very large cray-fish (*Cambarus*) from near Kingston, Ont.

Chief among isopods are specimens of the salve bug (*Æga psora*) from Grand Manan, N.B., Churchill, and Port Burwell.* The last mentioned were found on cod-fish.

Specimens of barnacles of the genus *Balanus* are from Pictou, N.S., Bay Chaleur, Gulf of St. Lawrence, Port Burwell,* and Vancouver island. There are also a few specimens of barnacles of the species *Lepas fascicularis* from the Pacific coast.

Certain Arctic forms of crustaceans, collected during the expedition of the ss. *Neptune*, 1903-4, have been courteously identified by Prof. G. O. Sars, of Christiania, Norway, the expert carcinologist, viz.: *Spirontocaris gaimardi**, *Spirontocaris acu-*

¹A few specimens of Hyas, perhaps *H. coarctatus** from Fullerton, were obtained during the expedition of the SS. 'Neptune.'

SESSIONAL PAPER No. 22

*leata**, *Anonyx nugax**, *Pseudolibrotus littoralis**, *Ischyrocerus angvipes**, and the following fresh water forms: *Branchinecta paludosa**, *Diaptomus castor**, *Daphnia pulex**, and *Dactylopus stromia**, from Fullerton; *Nectocrangon lar**, and *Ampelisca eschrichti**, from Port Burwell; *Euthemisto libellula** from North Somerset; and *Gammarus locusta** from Wakeham bay, Ungava.

Mollusks.

Instances of Gastropod shells are specimens of *Tritonofusus kroyeri* from Metis, of *Sipho pygmaeus* from the Bay of Fundy, of *Sipho stimpsoni* and *Neptunea decemcostata* from Grand Manan, N.B., of *Buccinum tenue* from Metis and Port Burwell,* of *Buccinum undatum* from Metis, of *Nassa obsoleta* from Pointe du Chêne, N.B., and Nova Scotia, of *Purpura lapillus* from Metis and Magdalen islands, of *Cerostoma foliatum* from Queen Charlotte islands, of *Trophon clathratus* from Metis, of *Priene oregonensis* from British Columbia, of *Aporrhais occidentalis* from Ungava bay, of *Trichotropis borealis* from Metis and Port Burwell,* of *Turritella reticulata* from Gaspé, of *Turritella*, sp.* from Port Burwell, of *Lucina vineta* from Bay of Fundy, of *Littorina littorea* from Grand Manan, N.B., Nova Scotia and Prince Edward Island, of *Littorina palliata*, from Nova Scotia and Hudson bay,* of *Littorina rudis* from Nova Scotia, of *Crepidula fornicata* from Pictou, N.S., of *Velutina undata* from Murray bay, of *Velutina levigata* from Gaspé and Port Burwell,* of *Natica clausa* from Metis, of *Lunatia heros* from Grand Manan, N.B., Pictou, N.S. and Bay Chaleur, of *Lunatia grønlandica* from Gaspé, of *Pachypoma gibberosum* from Vancouver island, of *Margarita cinerea* from Ungava bay, Cape Gaspé head, Metis, Fullerton,* and Port Burwell, of *Solariella varicosa* from Metis, of *Haliotis kamtschatkana* from Queen Charlotte islands of *Puncturella*, sp.* from Port Burwell, of *Acmæa testudinalis* from Grand Manan, Tadousac, P.Q., and Fullerton,* of *Amicula vestita* from Rivière du Loup, P.Q., of *Tonicella marmorea* from Ungava bay and Fullerton*—the last mentioned being valves from the gizzards of eider ducks, and of *Katherina tunicata* from Vancouver island.

Instances of Lamellibranch shells are specimens of *Zirphæa crispata* from Vancouver island and Sable island, N.S., of *Cyrtodaria siliqua* from Gulf of St. Lawrence of *Saxicava rugosa* from Nova Scotia, Ungava bay and Byam island,* of *Mya truncata** from Cumberland Sound and Port Burwell, of *Mya arenaria* from Gulf of St. Lawrence, Bay Chaleur and Prince Edward island—the last mentioned being tiny juvenile specimens—of *Cochlodesma leanum* from Pictou, N.S., of *Lyonsia arenosa*, and *Kennerlia glacialis* from Gaspé, of *Macoma inflata* from Murray bay, of *Macoma calcarea* from Gaspé bay, Magdalen islands and Port Burwell,* of *Macoma balthica* from Tadousac, P.Q., and Fullerton,* of *Mesodesma deauratum* from Metis, P.Q., of *Spisula polynyma* from Gaspé, P.Q., of *Spisula solidissima* from Bay of Fundy and Pictou, N.S., of *Petricola photadiformis* from Prince Edward Island, of *Liocyma fluctuosa* from Bradelle bank, off Prince Edward island, of *Cytherea convexa* from Prince Edward Island and Magdalen islands, of *Venus mercenaria* from Nova Scotia, and straits of Northumberland, of *Astarte banksii* from Gulf of St. Lawrence, Hudson bay and Port Burwell,* of *Astarte compressa* from Metis and Magdalen islands, of *Astarte lactea* from Magdalen islands and Port Burwell,* of *Cyprina islandica* from Bay of Fundy, of *Serripes groenlandicus** from Port Burwell, of *Cardium ciliatum* from Bay Chaleur, Cape Gaspé Head and Port Burwell,* of *Megayoldia thraciformis* from Gulf of St. Lawrence, of *Yoldia sapotilla* from Pictou, N.S. of *Yoldia limatula* from Gulf of St. Lawrence and Port Burwell,* of *Leda minuta* from Gaspé and Port Burwell,* of *Nucula tenuis* from Labrador, of *Crenella pectinula* from Murray bay, of *Crenella*, sp.* from Fullerton and Port Burwell, of *Modiolaria nigra* and *Modiolaria discors* from Gaspé, of *Modiolaria corrugata* from Murray bay, Cape Gaspé Head, Fullerton,* and Port Burwell,* of *Modiola demissa* from Nova

7-8 EDWARD VII., A. 1908

Scotia and Charlottetown, P.E.I., of *Modiola modiolus* from Nova Scotia, straits of Northumberland and off Douglastown Head, P.Q., of *Mytilus edulis* from Metis, Bay Chaleur, and Wakeham bay,* of *Mytilus californianus* from Vancouver island, of *Pecten groenlandicus* from Gulf of St. Lawrence, of *Pecten magellanicus* from Gaspé bay and Douglastown Bank, P.Q., of *Pecten islandicus* from Gulf of St. Lawrence, of *Pecten caurinus* from Straits of Georgia, B.C., of *Ostrea virginica* from Prince Edward Island, of *Ostrea lurida* from British Columbia, and of *Hinnites giganteus* from Vancouver island.

Among other specimens referable to mollusks are a few pteropods* from Port Burwell, Wakeham bay, and Black Tickle; an octopus from British Columbia, $5\frac{1}{2}$ feet long by $7\frac{1}{2}$ feet wide; specimens of *Ommatostrephes illecebrosa* from the Gulf of St. Lawrence; besides the following fresh water shells from the stomach of a sturgeon, viz.: *Planorbis bicarinatus*, *Planorbis parvus*, *Planorbis campanulatus*, *Limnæa cata-scopium*, *Valvata sincera*, *Valvata tricarinata*, *Amnicola porata*, *Sphærium striatum*? and *Pisidium abditum*.

Polyzoans.

Of these are fragments of *Myrionozoum subgracile* from the Gulf of St. Lawrence and Bay Chaleur, of *Cellepora cervicornis*, *Cellepora incrassata* and *Eschara elegantula* from Orphan Bank, Gulf of St. Lawrence, and a specimen of *Flustra*, sp. from Rimouski, P.Q.

Brachiopods.

These embrace specimens of *Hemithyris psittacea* from Cape Gaspé Head, P.Q., and Ungava bay, of *Terebratalia spitzbergensis* from Murray bay, P.Q., and of *Terebratulina septentrionalis* from Bay of Fundy.

Annelids.

Specimens of the shells of *Spirorbis* from Port Burwell, Ungava,* are attached to pieces of alga, and to objects in the museum from various localities; and tubes of *Cistenides*,* and a few specimens of a very small fresh water leech* are from Fullerton. Certain other Annelids collected during the expedition of the ss. *Neptune*, 1903-4, await determination.

Echinoderms.

The echinoderms are mostly represented by specimens of *Echinarachnius parma* from Gulf of St. Lawrence, Bay Chaleur, Douglastown Head, P.Q., and the Magdalen islands, of *Strongylocentrotus drobachiensis* from Bay of Fundy, Cape Gaspé Head, P.Q., Rimouski, P.Q., the Magdalen islands, Ungava bay, and North Somerset,* of *Gorgonocephalus agassizii* from Province of Quebec, of *Ophiopholis aculeata* from near Churchill, Cape Gaspé Head, and Port Burwell,* of *Ophioglypha robusta* from Gulf of St. Lawrence and Port Burwell,* of *Ophioglypha sarsii* from Kamouraska, P.Q., and Port Burwell,* of *Leptasterias groenlandicus* from Metis, P.Q., of *Asterias poularis* from Cape Gaspé Head, P.Q., Rimouski, P.Q., and Port Burwell* (tiny specimens), of *Asterias vulgaris* from Digby, N.S., Douglastown Head, P.Q., Bay Chaleur and Magdalen islands, of *Crossaster papposus* from Hudson straits, Cape Gaspé Head, and North Somerset,* of *Psolus fabricii* from Rimouski, P.Q., and Port Burwell,* of *Psolus phantapus*¹ from Cape Gaspé Head, and of *Pentacta*, sp.* from Point Leopold, North Somerset.

¹ One small specimen, possibly a juvenile of *Psolus fabricii*, as the median podia are not at all distinct, but it resembles *Psolus phantapus* in form.

SESSIONAL PAPER No. 22

Cœlenterates.

There are a few specimens of this sub-kingdom, such as *Alcyonium rubiforme* from the Gulf of St. Lawrence, *Pennatulula aculeata* from near Anticosti island, and *Verrillia blakei* from Burrard's Inlet, B.C.; besides certain ctenophores* from Port Burwell, actinians* from North Summerset, and hydrozoans* from Fullerton and Black Tickle.

Sponges.

Of a few specimens of sponges in the museum may be mentioned *Chalina oculata* from the Gulf of St. Lawrence, and *Suberites compacta* from Sable Island, N.S.

Respectfully submitted.

ANDREW HALKETT,

Naturalist and Curator Canadian Fisheries Museum.

Department of Marine and Fisheries,
Ottawa, December, 1906.

APPENDIX No. 15

EXPENDITURE AND REVENUE

The total expenditure for all Fisheries services, except Civil Government, for the fiscal year ending 31st March, 1907, including Fishing Bounty, amounted to \$693,685, being within the appropriation by over \$100,000.

The total net fisheries revenue, during the same period, for rents, license fees, fines and sales, including the *modus vivendi* licenses to United States vessels, amounted to \$59,544.

Service.	Expenditure.	Vote.
	\$ cts.	\$ cts.
Fisheries.....	95,930 54	95,925 00
Fish-breeding.....	118,681 62	158,000 00
Fisheries protection service.....	204,837 82	216,745 00
Fishing bounty.....	159,015 75	160,000 00
Miscellaneous expenditure.....	115,219 92	167,568 68
Total.....	693,685 65	798,238 68

The details of the above will be found in the Auditor General's report under the proper headings.

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.	\$ cts.
Fisheries, Ontario.....	3,188 34
" Quebec.....	5,590 94
" New Brunswick.....	24,987 70
" Nova Scotia.....	24,989 09
" Prince Edward Island.....	5,792 32
" Manitoba.....	2,173 33
" Northwest Territories.....	6,359 22
" British Columbia.....	20,381 97
" Yukon.....	1,030 35
General account.....	1,437 28
Total.....	95,930 54

SESSIONAL PAPER No. 22

The expenditure by provinces is subdivided as follows :—

	Amount.	Total.
	\$ cts.	\$ cts.
<i>Ontario.</i>		
Salaries of officers	2,700 00	
Disbursements of officers	488 34	
Total		3,188 34
<i>Quebec.</i>		
Salaries of officers	3,095 70	
Disbursements of officers	2,411 34	
Miscellaneous	83 90	
Total		5,590 94
<i>New Brunswick.</i>		
Salaries of officers	17,630 95	
Disbursements of officers	6,336 75	
Miscellaneous	1,020 00	
Total		24,987 70
<i>Nova Scotia.</i>		
Salaries of officers	15,134 66	
Disbursements of officers	9,427 01	
Miscellaneous	427 32	
Total		24,989 09
<i>Prince Edward Island.</i>		
Salaries of officers	4,513 40	
Disbursements of officers	1,275 92	
Miscellaneous	3 00	
Total		5,792 32
<i>Manitoba.</i>		
Salaries of officers	1,501 00	
Disbursements of officers	459 60	
Miscellaneous	212 73	
Total		2,173 33
<i>Saskatchewan.</i>		
Salaries of officers	2,304 50	
Disbursements of officers	1,336 95	
Total		3,681 45
<i>Alberta.</i>		
Salaries of officers	1,470 15	
Disbursements	1,105 67	
Miscellaneous	101 95	
Total		2,677 77
<i>British Columbia.</i>		
Salaries of officers	14,276 90	
Disbursements of officers	5,682 44	
Miscellaneous	1,022 63	
Total		20,981 97
<i>Yukon.</i>		
Salaries of officers	750 00	
Disbursements	280 35	
General account		1,030 35
Grand Total		95,930 54

7-8 EDWARD VII., A. 1908

FISHERIES GENERAL EXPENDITURE—*Continued.*

FISH-BREEDING.

Service.	Expenditure.		Total.	
	\$	cts.	\$	cts.
Fish-breeding, Ottawa hatchery, Ont.....	1,372	72		
" Newcastle " "	3,024	45		
" Sandwich " "	5,593	91		
" Quinté Bass Pond hatchery.....	532	80		
" Wiarton " "	1,981	15		
" Tadousac hatchery, Que ..	3,690	22		
" Gaspé " "	1,794	60		
" Magog " "	1,602	01		
" St. Alexis " "	777	10		
" Lac Tremblant "	1,274	15		
" Lake Lester.....	1,502	79		
" Chelsea.....	42	37		
" Restigouche " N. B.....	3,493	18		
" Miramichi " "	2,644	56		
" St. John River hatchery "	1,473	20		
" Shemogue " "	1,518	05		
" Shippigan " "	654	98		
" Carleton " "	7,559	12		
" Bedford hatchery, N. S.....	1,525	85		
" Margaree " "	2,307	43		
" Bay view " "	1,148	36		
" Canso " "	1,277	61		
" Windsor " "	1,607	39		
" Fourchu " "				
" Selkirk " Man.....	3,438	51		
" Berens R " "	12,419	84		
" Fraser River hatchery, B.C	4,646	22		
" Granite Creek " "	7,090	34		
" Skeena " "	5,826	25		
" Pemberton " "	7,727	08		
" Harrison Lake "	8,701	35		
" Rivers Inlet "	5,388	68		
" Kelley's Pond, P.E., Id.....	1,711	35		
" Charlottetown	1,241	12		
General account.....	12,092	86		
			118,681	62

SESSIONAL PAPER No. 22

FISHERIES GENERAL EXPENDITURE—*Continued.*FISH-BREEDING—*Continued.*

SALARIES, ETC.	\$	cts.	\$	cts.
General account			12,092	86
<i>Newcastle Hatchery.</i>				
Salaries	1,035	00		
Miscellaneous expenditure	1,989	45		
Total			3,024	45
<i>Sandwich Hatchery.</i>				
Salaries	787	50		
Miscellaneous expenditure	4,806	41		
Total			5,593	91
<i>Ottawa Hatchery.</i>				
Salaries	1,245	45		
Miscellaneous expenditure	127	27		
Total			1,372	72
<i>Quinté Bass Pond.</i>				
Salaries	31	25		
Miscellaneous expenditure	501	55		
Total			532	80
<i>Tadousac Hatchery.</i>				
Salaries	625	00		
Miscellaneous expenditure	3,065	22		
Total			3,690	22
<i>Gaspé Hatchery.</i>				
Salaries	491	64		
Miscellaneous expenditure	1,302	96		
Total			1,794	60
<i>Magog Hatchery.</i>				
Salaries	512	50		
Miscellaneous expenditure	1,089	51		
Total			1,602	01
<i>St. Alexis Hatchery.</i>				
Salaries	280	00		
Miscellaneous expenditure	497	10		
Total			777	10
<i>Restigouche Hatchery.</i>				
Salaries	825	00		
Miscellaneous expenditure	2,668	18		
Total			3,493	18
<i>Miramichi Hatchery.</i>				
Salaries	750	00		
Miscellaneous expenditure	1,894	56		
Total			2,644	56
Carried forward			33,973	85

7-8 EDWARD VII., A. 1908

FISHERIES GENERAL EXPENDITURE—*Continued.*FISH-BREEDING—*Continued.*

	\$ cts.	\$ cts.
Brought forward.....		33,973 85
<i>St. John River Hatchery.</i>		
Salaries.....	875 00	
Miscellaneous expenditure.....	598 20	
Total.....		1,473 20
<i>Shippigan Hatchery.</i>		
Miscellaneous expenditure.....		654 98
<i>Shemogue Hatchery.</i>		
Miscellaneous expenditure.....		1,518 05
<i>Bay View Hatchery.</i>		
Miscellaneous expenditure.....		1,148 36
<i>Bedford Hatchery.</i>		
Salaries.....	1,075 00	
Miscellaneous expenditure.....	450 85	
Total.....		1,525 85
<i>Margaree Hatchery.</i>		
Salaries.....	445 00	
Miscellaneous expenditure.....	1,862 43	
Total.....		2,307 43
<i>Selkirk Hatchery.</i>		
Salaries.....	900 00	
Miscellaneous expenditure.....	2,538 51	
Total.....		3,438 51
<i>Fraser River Hatchery.</i>		
Salaries.....	1,050 00	
Miscellaneous expenditure.....	3,596 22	
Total.....		4,646 22
<i>Pemberton Hatchery.</i>		
Salaries.....	1,944 33	
Miscellaneous expenditure.....	5,782 75	
Total.....		7,727 08
<i>Kelly's Pond.</i>		
Salaries.....	616 66	
Miscellaneous.....	1,094 69	
Total.....		1,711 35
<i>Skeena.</i>		
Salaries.....	775 00	
Miscellaneous.....	5,051 25	
Total.....		5,826 25
Carried forward.....		68,695 69

SESSIONAL PAPER No. 22

FISHERIES GENERAL EXPENDITURE—*Continued.*FISH-BREEDING—*Concluded.*

	\$ cts.	\$ cts.
Brought forward.....		68,595 69
<i>Rivers Inlet Hatchery.</i>		
Salaries.....	1,275 09	
Miscellaneous expenditure.....	4,113 68	
Total.....		5,388 68
<i>Lake Lester Hatchery.</i>		
Salaries.....	450 00	
Miscellaneous expenditure.....	1,052 79	
Total.....		1,502 79
<i>Granite Creek Hatchery.</i>		
Miscellaneous expenditure.....		7,090 34
<i>Lac Tremblant Hatchery.</i>		
Salaries.....	337 50	
Miscellaneous expenditure.....	936 65	
Total.....		1,274 15
<i>Charlottetown Hatchery.</i>		
Miscellaneous expenditure.....		1,241 12
<i>Canso Hatchery.</i>		
Miscellaneous expenditure.....		1,277 61
<i>Harrison Lake Hatchery.</i>		
Salaries.....	1,393 07	
Miscellaneous expenditure.....	7,308 30	
Total.....		8,701 37
<i>Windsor.</i>		
Salaries.....	525 00	
Miscellaneous expenditure.....	1,082 39	
Total.....		1,607 39
<i>Chelsea Pond.</i>		
Miscellaneous expenditure.....		42 37
<i>Fourchu Pond.</i>		
Miscellaneous expenditure.....		
<i>Bovens River Hatchery.</i>		
Miscellaneous expenditure.....		12,419 84
<i>Carleton Pond.</i>		
Miscellaneous expenditure.....		7,559 12
<i>Warton.</i>		
Salaries.....	401 61	
Miscellaneous.....	1,579 54	
Total.....		1,981 15
Grand total for F. B.....		118,681 62

7-8 EDWARD VII., A. 1908

FISHERIES GENERAL EXPENDITURE—*Continued.*

FISHERIES PROTECTION SERVICE—1906-1907.

	\$	cts.	\$	cts.
General Account			7,346	37
<i>Steamer 'Premier.'</i>				
Wages of officers and men.....	2,468	00		
Provisions	756	57		
Fuel	370	19		
Charter.....	3,000	00		
Miscellaneous expenditure	935	44		
	7,530	20		
Less proportionate cost, running steamer.	1,860	00		
<i>Steamer 'Princess.'</i>				
			5,670	20
Wages of officers and men.....	7,957	67		
Provisions.....	2,231	63		
Fuel.....	4,240	23		
Repairs and supplies.....	3,960	05		
Miscellaneous expenditure.....	2,851	06		
Clothing.....	1,522	05		
Total			22,763	29
<i>Steamer 'Curlew.'</i>				
Wages of officers and men.....	5,871	32		
Provisions.....	1,491	08		
Fuel.....	1,503	95		
Repairs and supplies	4,991	90		
Miscellaneous expenditure	2,273	01		
Clothing	176	00		
Total.....			16,307	26
<i>Steamer 'Petrel.'</i>				
Wages of officers and men.....	5,935	83		
Provisions.....	2,460	34		
Fuel.....	982	42		
Repairs and supplies.....	3,961	96		
Miscellaneous expenditure.....	2,998	10		
Clothing	659	25		
Total			16,997	90
<i>Steamer 'Constance.'</i>				
Wages of officers and men.....	6,057	00		
Provisions.....	1,749	75		
Fuel.....	2,820	88		
Repairs and supplies	6,637	40		
Miscellaneous expenditure	1,525	87		
Clothing	21	23		
Total			18,812	13
<i>Schooner 'Osprey.'</i>				
Wages of officers and men.....	3,024	43		
Provisions.....	2,349	25		
Fuel	26	90		
Repairs and supplies.....	107	54		
Miscellaneous expenditure	1,783	08		
Clothing	484	80		
Total			6,776	00
Carried forward			94,673	15

SESSIONAL PAPER No. 22

FISHERIES GENERAL EXPENDITURE—*Continued.*FISHERIES PROTECTION SERVICE—*Continued*

	\$ cts.	\$ cts.
Brought forward		94,673 15
<i>'Georgia.'</i>		
Wages of officers and men.	3,051 93	
Provisions	736 95	
Fuel	637 93	
Repairs and supplies	879 84	
Miscellaneous	365 17	
Clothing	194 10	
Total		5,857 22
<i>'Swan.'</i>		
Wages of officers, &c.	1,500 00	
Provisions	72 70	
Fuel	327 10	
Repairs and supplies	726 63	
Miscellaneous	86 11	
Clothing	33 00	
Total		2,745 54
<i>'Rocket,' (of Lake Winnipeg.)</i>		
Fuel	52 00	
Repairs and supplies	3 00	
Total		55 00
<i>'Kestrel.'</i>		
Wages, &c.	9,490 32	
Provisions	5,637 61	
Fuel	2,139 00	
Repairs and supplies	3,048 97	
Miscellaneous	944 07	
Clothing	891 50	
Total		22,151 47
<i>'Falcon.'</i>		
Wages, &c.	2,011 61	
Provisions	597 62	
Fuel	396 00	
Repairs and supplies	169 53	
Miscellaneous	217 45	
Clothing	82 50	
Total		3,474 11
<i>'Vigilant.'</i>		
Wages of officers and men	8,110 19	
Provisions	2,723 79	
Fuel	3,386 95	
Repairs and supplies	1,740 78	
Miscellaneous	16,737 14	
Total		32,698 85
Carried forward		161,655 34

FISHERIES GENERAL EXPENDITURE—*Concluded.*FISHERIES PROTECTION SERVICE—*Concluded.*

	\$	cts.	\$	cts.
Brought forward.			161,655	34
<i>' Canada. '</i>				
Wages.....	16,014	10		
Provisions.....	11,604	91		
Fuel.....	2,769	49		
Repairs and supplies.....	21,900	51		
Clothing.....	1,441	10		
Miscellaneous.....	4,948	70		
Charter.....	255	10		
			58,933	91
Fisheries Intelligence Bureau.....			2,961	45
Grand total.....			223,560	70
Less amount paid by Customs Department for St'r. <i>' Constance. '</i>			18,812	13
			204,738	57
Plans specifications, &c., of steamer for Lake Winnipeg.....			99	25
Total			204,837	82
MISCELLANEOUS.	\$	cts.	\$	cts.
Building fishways.....	2,199	09		
Legal and incidental expenses.....	704	71		
Canadian fisheries exhibit.....	3,169	84		
Expenditure in connection with the distribution of fishing bounties.....	4,988	50		
Surveys of oyster beds.....	2,690	10		
Issuing licenses to United States fishing vessels.....	633	68		
Cold storage.....	47,350	93		
Georgian Bay biological laboratory.....	1,059	80		
Fishery Commission	4,441	38		
Disposal of Dogfish.....	45,384	94		
Fish drier, Souris, P.E.I.....	1,286	95		
Gratuity widow of late Wm. Carson.....	120	00		
Claims of Provincial Governments.....	1,190	00		
Total			115,219	92

SESSIONAL PAPER No. 22

STATEMENT of Fisheries Revenue paid to the Credit of the Receiver General of Canada
for the fiscal year ended on 31st March, 1907.

Licenses Fines, Sales, &c.		\$	cts.
Ontario		349	10
Quebec		8,145	97
Nova Scotia.....		3,118	73
New Brunswick		9,153	08
Prince Edward Island.....		1,300	94
Manitoba.....		2,285	98
Northwest Territories.		358	00
British Columbia ..		29,903	95
Yukon ..		173	00
Franklin District.....		100	00
Hudson Bay		10	00
Alberta		2	50
Saskatchewan.....		509	00
Licenses to United States fishing vessels ...		55,410	25
Total.....		4,134	00
		59,544	25

7-8 EDWARD VII., A. 1908

COMPARATIVE STATEMENT of Expenditure and Revenue of the

No.		1890-91.		1891-92.		1892-93.	
		Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1	General Account Fisheries....						
2	Ontario.....	15,540 30	26,517 70	15,155 83	25,368 90	20,116 91	30,623 09
3	Quebec.....	10,666 98	3,642 14	10,917 36	4,742 76	11,761 34	7,471 70
4	New Brunswick.....	16,082 77	7,193 69	15,707 98	6,334 83	15,721 05	7,831 53
5	Nova Scotia.....	17,844 19	5,582 65	18,755 86	3,357 42	19,444 22	6,782 02
6	Prince Edward Island.....	3,242 25	667 00	1,835 65	166 00	2,847 60	304 10
7	Manitoba and N.W. Terrs....	3,609 03	1,234 00	3,593 43	1,079 00	3,932 96	1,661 68
8	British Columbia.....	4,220 53	12,859 02	6,158 17	8,192 48	5,490 60	40,264 00
9	Fish breeding and fishways....	39,496 45	1,286 50	43,957 74	178 00	47,322 49	
10	Fisheries Protection Service....	83,050 16	1,934 49	93,397 40		106,805 39	
11	Miscellaneous.....	13,382 28		17,449 06		100,602 14	
	Totals.....	207,234 94	60,917 19	226,928 48	49,719 39	334,044 70	94,938 12
	Fishing bounties.....	165,967 22		156,892 25		159,752 15	
		1897-98.		1898-99.		1899-00.	
12	General Account Fisheries....	2,389 66		2,632 12		652 41	
13	Ontario.....	19,239 34	30,574 57	11,784 22	5,830 85	3,804 94	794 12
14	Quebec.....	11,140 16	7,571 15	11,350 27	6,287 71	5,452 41	2,543 04
15	New Brunswick.....	17,063 58	5,317 08	22,922 50	10,430 08	21,659 94	12,015 27
16	Nova Scotia.....	21,683 91	11,511 85	25,348 11	6,668 22	27,461 91	5,494 49
17	Prince Edward Island.....	6,775 78	2,707 57	6,832 85	2,242 24	7,364 30	2,297 12
18	Manitoba.....	1,266 26	1,515 00	1,883 37	1,537 85	1,723 59	2,028 00
19	N. W. Territories.....	2,324 66	393 87	4,065 68	150 50	3,848 25	1,522 50
20	British Columbia.....	8,568 79	47,864 75	8,459 47	45,801 75	13,662 17	53,195 35
21	Yukon.....						
22	Hudson Bay Territory.....						
23	Fish-breeding.....	28,002 32		34,522 57		38,070 12	
24	Fisheries Protection Service....	101,807 96		105,133 27		97,370 11	
25	Miscellaneous.....	59,919 56		23,297 73		31,125 67	
	Totals.....	280,061 98	107,455 84	427,599 16	75,949 20	411,717 35	79,799 89
	Fishing bounties.....	157,504 00		159,459 00		160,000 06	
		1904-05.		1905-06.		1906-07.	
26	General Account Fisheries....	1,314 75		2,261 66		1,437 28	
27	Ontario.....	4,294 60	1,471 51	4,949 67	499 15	3,188 34	349 10
28	Quebec.....	6,769 16	4,648 86	8,123 04	7,564 39	5,590 94	8,145 97
29	New Brunswick.....	25,253 16	11,887 19	35,856 38	11,395 84	24,987 70	9,153 08
30	Nova Scotia.....	32,619 85	6,448 88	49,351 10	4,934 43	24,989 09	
31	Prince Edward Island.....	6,779 05	2,046 50	9,351 81	2,206 25	5,792 32	3,118 73
32	Manitoba.....	2,800 61	4,875 70	3,687 07	4,148 00	2,173 33	1,300 94
33	N. W. Territories.....	7,003 55	1,151 50	11,124 22	868 97	6,359 22	969 50
34	British Columbia.....	16,631 37	47,436 00	30,141 33	51,532 50	20,381 97	29,903 95
35	Yukon.....	1,400 00	340 00	1,083 31	282 00	1,030 35	173 00
36	Hudson Bay Territory.....		10 00		10 00		10 00
37	Fish-breeding.....	149,419 24		209,279 78		118,681 62	
38	Fisheries Protection Service....	462,082 12		249,876 37		204,837 82	
39	Miscellaneous.....	105,892 97	10,472 00	194,993 61	14,568 16	115,219 92	4,134 00
	Totals.....	822,360 46	90,988 14	968,626 00	98,009 69	534,669 90	59,544 25
	Fishing bounties.....	157,228 24		158,546 65		159,015 75	

NOTE.—Miscellaneous Revenue consists of U.S. *Modus vivendi* License.

SESSIONAL PAPER No. 22

Fisheries Department from July 1, 1890, to March 31, 1907.

1893-94.		1894-95.		1895-96.		1896-97.		Number.
Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	Expendi- ture.	Revenue.	
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
22,634 37	28,632 82	21,938 56	33,211 60	24,917 48	35,681 68	21,592 40	32,814 66	1
11,692 82	7,211 82	12,459 34	8,836 18	11,876 43	8,160 98	12,910 80	7,876 12	2
18,522 94	8,333 24	21,370 94	11,170 36	20,526 56	10,696 88	21,671 92	10,110 77	3
20,420 81	5,296 27	23,555 38	7,075 07	23,049 41	6,180 93	23,682 33	5,239 55	4
3,078 55	980 15	3,796 58	3,312 30	3,555 87	2,161 85	3,744 36	2,032 25	5
5,331 29	926 99	6,178 71	2,458 80	6,915 20	2,256 69	1,908 14	1,719 00	6
5,283 21	25,337 90	6,218 74	23,517 25	6,226 77	26,410 75	2,181 58	344 13	7
45,024 67	.....	39,730 93	.....	38,050 41	.....	8,841 64	39,888 82	8
115,147 59	.....	100,207 29	.....	102,021 72	.....	27,330 73	.....	9
34,892 19	.....	24,619 86	.....	20,203 25	.....	99,357 01	.....	10
.....	.....	.....	.....	.....	.....	62,777 30	.....	11
282,028 44	76,719 19	260,076 33	89,581 56	257,237 10	91,549 76	289,197 01	100,025 30	
158,794 54	.....	160,089 42	.....	163,567 99	.....	154,389 77	.....
1900-01.		1901-02.		1902-03.		1903-04.		
1,117 49	.....	765 78	.....	402 97	.....	1,362 11	.....	12
3,819 57	717 35	4,445 93	373 42	4,650 53	1,818 83	4,500 43	2,578 48	13
7,934 03	4,738 92	6,242 58	2,498 85	6,785 86	4,379 15	7,619 67	4,670 64	14
28,452 51	10,150 40	23,813 62	11,653 34	27,132 84	11,188 02	27,664 34	10,593 20	15
35,760 39	6,595 94	32,618 00	6,084 65	39,118 79	3,962 45	30,003 01	3,685 75	16
7,934 03	1,525 30	7,814 02	1,843 45	7,081 60	2,007 35	7,320 96	1,983 42	17
2,669 74	1,103 00	2,624 87	2,279 00	3,129 70	1,784 00	2,789 74	4,002 70	18
6,251 39	1,222 55	5,928 22	956 07	7,076 26	1,350 50	7,317 49	922 50	19
17,886 36	52,960 35	18,560 73	41,178 65	17,808 45	43,015 02	15,133 65	56,904 34	20
.....	.....	2,066 66	1,130 00	1,522 00	320 00	1,400 00	240 00	21
.....	.....	.....	.....	.....	.....	.....	10 00	22
68,961 40	.....	79,891 85	.....	77,330 86	.....	109,286 07	.....	23
124,211 21	.....	152,723 69	.....	145,137 49	.....	204,654 66	.....	24
27,833 79	9,178 50	56,131 26	11,223 65	30,903 27	8,925 40	56,828 18	10,165 50	25
332,767 07	88,145 11	393,627 21	79,169 58	368,091 12	78,635 82	475,880 31	95,756 53	
158,802 50	.....	155,942 00	.....	159,853 50	.....	158,943 70	.....

APPENDIX No. 16.

THE OUTSIDE STAFF OF THE FISHERIES BRANCH.

The following are Inspectors of Fisheries in the different provinces of the Dominion, 1907

Name.	P.O. Address.	Extent of Jurisdiction.
Bertram, A. C.	North Sydney, N.S.	District No. 1.—Cape Breton Island.
Hockin, Robt.	Pictou, N.S.	District No. 2.—Cumberland, Colchester, Pictou, Antigonish, Guysboro', Halifax and Hants counties.
Robertson, Andrew C. .	Barrington Passage..	District No. 3.—Lunenburg, Queens, Shelburne, Yarmouth, Digby, Annapolis and Kings counties.
Calder, John	Campobello, N.B.	District No. 1.—The counties of Charlotte and St. John.
Chapman, Robt. A.	Moncton, N.B.	District No. 2.—Restigouche, Gloucester, Northumberland, Kent, Westmorland and Albert counties.
Harrison, H. E.	Fredericton, N.B.	District No. 3.—Kings, Queens, Sunbury, York, Carleton and Victoria counties.
Matheson, J. A.	Charlottetown.....	Prince Edward Island.
Wakeham, Wm., M.D. .	Gaspé Basin, Que. .	Lower St. Lawrence River and Gulf.
Belliveau, A. H.	Ottawa.	Dominion of Canada.
Riendeau, Jos.	Montreal.....	The counties of the province of Quebec bordering on the St. Lawrence from Huntington to Three Rivers.
Hurley, J. M.	Belleville, Ont.	That portion of Ontario east of the western boundary line of the counties of Durham, Victoria and Haliburton, including Lake Scugog and the eastern boundary of Muskoka and Parry Sound districts.
Sheppard, O. B.	Toronto, Ont.	That part of the province of Ontario west of the eastern boundaries of the county of Ontario, and the districts of Muskoka and Parry Sound along the Mattawa and Ottawa rivers, and northward along the north-eastern boundary line of said province to James' Bay.
Duncan, A. G.	Marksville, Ont. . .	That portion of Ontario lying west and north of Lake Nipissing, the rivers Mattawa and Ottawa and the north-east boundary line of the province to James bay, embracing Nipissing, Algoma, Thunder bay and Rainy river districts, Lake Superior and such portions of Lake Huron and Georgian bay as lie adjacent or opposite to the part of Ontario above described.
Young, Wm. S.	Selkirk, Man.	Province of Manitoba and the district of Keewatin.
Miller, E. W.	Qu'Appelle, N.W.T.	" Saskatchewan.
Young, Harrison S.	Edmonton.....	" Alberta and district of McKenzie.
McKay, Horace T.	Dawson City	Yukon district.
Sword, C. B.	N. Westminster, B.C.	Province of British Columbia.—No. 1. Southern district.
Williams, J. T.	Port Essington.....	" " No. 2. Northern district.
Taylor, E. G.	Nanaimo.....	" " No. 3. Vancouver Id.

OTHER DEPARTMENTAL OFFICERS.

Halket, Andrew.....	Fish. Museum, Ott.	Naturalist and Curator of Fisheries Museum, at Ottawa.
MacFarlane, Peter	New Glasgow, N.S.	Officer in charge Bait cold storage.
Migneault, R. M. S.	Yamaska.	Inspector of fishways.
Mackerrow, A. D.	Halifax.....	In charge Intelligence Bureau.

SESSIONAL PAPER No. 22

LIST OF FISHERY OVERSEERS IN THE DOMINION OF CANADA.

REVISED TO DECEMBER, 1907.

NOVA SCOTIA.

Annapolis County.

Name of Overseer.	P.O. Address.	Extent of Jurisdiction.
Fritz, Henry.. . . .	Port George.....	Annapolis county.

Antigonish County.

McAdam, Alexander... .	Malignant cove.. . .	Antigonish county.
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Cape Breton County.

Forbes, A. R.. . . .	North Sydney	Cape Breton county.
Lavatte, Henry.....	Louisbourg.....	" "
McCuish, John.....	Seatarie.....	" "
McDonald, Joseph.....	Little Lorraine	" "
McInnis, Michael R. . . .	Amaguadus pond. . . .	" "
McLean, John.....	Gabarouse lake. . . .	" "
McLean, Murdock.....	Leitches creek	" "
McLeod, Angus.....	Port Morien	" "
Sullivan, Timothy	Little Bras d'Or.....	" "

Colchester County.

Davidson, J. W.	Bass river.....	Colchester county.
Henderson, G. W.....	Tatamagouche.....	"
McGregor, E. H.....	Lower Stewiacke....	"

Cumberland County.

Angevine, Frank	Middleboro.	Cumberland county.
Brownell, Ferguson. . . .	Northport.	"
Reid, John D.....	Pugwash.	"
Thompson, Guy.....	Oxford	"

Digby County.

Bishop, H. R.	Digby	Municipality of Digby, Digby county.
German, Thos.....	Meteghan.	Municipality of Claire, Digby county.

Guyshoro County.

Davis, John	Guysboro.	Guysboro county.
Reid, David	Port Hilford.....	"

Halifax County.

Gaston, Robt.	Pope's harbour	Sea coast and inland waters at Halifax county.
Kennedy, Wm.... .	Hubbard's cove. . . .	Halifax county.
Rowlings, George. . . .	Musquodoboit hrbr..	Sea coast and inland waters of Halifax county.

7-8 EDWARD VII., A. 1908

LIST of Fishery Overseers in the Dominion of Canada, &c.—*Continued.*NOVA SCOTIA—*Continued.**Hants County.*

Name of Overseer.	P. O. Address.	Extent of Jurisdiction.
McDonald, Chas.....	Shubenacadie.....	County of Hants.

Inverness County.

Aucoin, Wm.....	Eastern harbour....	No. 6.—From Big Pond Lobster Factory north, including Cheticamp, Eastern harbour, Little river, Pleasant bay and Paulet Cove.
Chisholm, Arch. A.....	S. W. Margaree.....	Inverness coast from Broad cove Chapel to Delany's cove, also East Lake Ainslie and streams, Loch Ban, S. W. Margaree river and tributaries and Margaree river from forks of Margaree Hr.
Gillies, Peter.....	S. W. Port Hood.....	No. 3.—Inverness Co. For bounty only.
Hart, Albert.....	N. E. Margaree.....	Coast of Inverness Co., from Delany's cove northward including Big pond, Eastern Hr., &c., also N. E. Margaree Riv. from Margaree forks to Source, and all other streams to Victoria Co. line.
McIntosh, Geo. P.	Pleasant bay.....	Coast of Inverness Co., extending from Pleasant bay to Meat cove (inclusive).
McLellan, Jno. B.	Kingsville.....	No. 2.—Inverness Co. For bounty only.
McLean, D. F.	Port Hood.....	No. 1.—W. division coast south of Mabou Hr., including S. W. Mabou river, Port Hood, Judique Long Pt., Pt. Hastings and Hawkesbury, to N. W. arm River Inhabitants in interior, and north side Victoria Co., from Js. McKimmons to Whycomagh bay, and through Glencoe and S. W. ridge of Mabou, to Mabou bridge.

Kings County.

Bishop, Adolphus.....	Grand Pré.....	Kings county.
Eaton, E. B.....	Canning.....	"
McIntyre, W.	Aylesford.....	"
Reid, Reuben F.....	Wolfville.....	"

Lunenburg County.

Morris, Jno. B.....	Bridgewater.....	Lunenburg county.
Webber, John A.....	Chester.....	"

Pictou County.

Kitchin, James.....	River John.....	Western division Pictou Co., comprising coast, water from Colchester Co., line to Cole's reef, Pictou Hr. and streams flowing into viz., River John and tributaries, Toney river, and Big and Little Cariboo rivers.
McDonald, Alexdr. J....	Bailey's brook.....	Pictou County.
Pritchard, A. O.....	New Glasgow.....	Pictou harbour, Pictou island, East, West and Middle rivers, Pictou Co.

SESSIONAL PAPER No. 22

LIST of Fishery Overseers in the Dominion of Canada, &c.—*Continued.*NOVA SCOTIA—*Concluded.**Queens County.*

Name of Overseer.	P. O. Address.	Extent of Jurisdiction.
Bain, J. L.	Liverpool	Queens county.
Young, Chas.	Mill village.	"

Richmond County.

Brymer, Arthur.	Lower L'Ardoise.	No. 3.—Eastern division that portion of sea coast, lakes and inland waters lying east of St. Peter canal.
Boyle, Dugald R.	West Arichat.	Coast and inland waters of Isle Madame including southerly half of waters of Lennox passage.
Morrisson, Archd.	River Bourgeois.	Richmond county.

Shelburne County.

Goudey, E. S.	Barrington passage.	From and including Clydes river to Yarmouth Co. line.
Himes, George K.	Shelburne	Shelburne county.

Victoria County.

Campbell, Jno M., Marine Agent at.	Halifax.	St. Paul's island.
Gillis, Duncan	Baddeck.	Victoria county.
Moffatt, W. P.	Cape North.	Cape North, Bay St. Lawrence to county line at Meat cove.
Montgomery, D. P.	Neils harbour.	Neils harbour including Green cove and New Heaven.
Morrison, Alexdr.	Wreck cove.	Englishtown north to Smoky cape at south Ingonish.
McDonald, Murdo	Big Bras d'Or.	District Big Bras d'Or north to Englishtown.
McLean, Angus	Ingonish.	North and south Ingonish, including Ingonish island.
McRea, Charles.	Brook Middle river.	Victoria county.

Yarmouth County.

Hartfield, A. M.	Arcadia	Yarmouth county.
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NEW BRUNSWICK.

Albert County.

Dowling, C. S.	Alma.	County of Albert.
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Charlotte County.

Billings, Robert.	St. Andrews.	Waters in vicinity of St. Andrews, extending from Owen head to Oak bay.
Fraser, W. A.	Woodward's cove, Grand Manan.	Island of Grand Manan, and waters surrounding the same.
Savage, Charles.	Campobello.	District of Campobello, and the west Isles, Charlotte Co.
Todd, Frank.	St. Stephen.	County of Charlotte.

7-8 EDWARD VII., A. 1908

LIST of Fishery Overseers in the Dominion of Canada, &c.—*Continued.*NEW BRUNSWICK—*Continued.**Gloucester County.*

Name.	Address.	Extent of Jurisdiction.
Canty, Thomas	Bathurst	Gloucester county.
Doucet, Jérôme E.	Elm Tree	"
Robichaud, Wm. C.	Inkerman	"

Kent County.

Hannah, Wm. F.	Richibucto.	County of Kent.
LeBlanc, O. J. O.	Buctouche	Coast line and inland waters at the parishes of Wellington and St. Mary.

Northumberland County.

Abbott, Lemuel.	Chatham.	Both shores of Miramichi river from Point Au Quart on south to Oak point on north to junction with N. W. S. W. Miramichi rivers, with all islands therein and streams emptying into.
Smith, B. W.	Hardwicke	County of Northumberland.

Queen's County.

Belyea, J. P.	Gagetown.	County of Queen's.
Hetherington, I. T.	Johnston.	"

Restigouche County.

McLean, Donald.	Charlo.	Baie des Chaleurs, and tributaries from Belledune to Dalhousie.
Miller, George.	Dalhousie	Restigouche river and its tributaries in the counties of Restigouche and Victoria.

Sanbury County.

McLean, Cecil F.	Burton.	St John river from Indianatown, Sanbury county, to the county line of York.
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St. John County.

Belyea, J. F.	58 Middle street, St. John.	County of St. John.
Cochrane, Jno.	I. C. R. stat., St. John	City of St. John and vicinity.

Victoria County.

LeClair, Joseph.	Grand Falls	County of Victoria.
Gagnon, L. A.	Edmundston	Malawaska district.

SESSIONAL PAPER No. 22

LIST of Fishery Overseers in the Dominion of Canada, &c.—*Continued.*NEW BRUNSWICK—*Concluded.**Westmorland County.*

Name.	Address.	Extent of Jurisdiction.
Arsenault, Thos. V.....	Barachois.....	Coastal and inland waters of parish of Shediac and portion of Botsford parish, north of Big Shemogue Hr., and road from same to near Bristol corner, past Bristol corner and Lowthers to parish at Sackville with jurisdiction in parishes of Moncton and Salisbury.
Melanson, Ambroise....	Pré-d'en-haut.....	Parish of Dorchester including Petitcodiac river.
Copp, George E.	Baie Verte.	Part of Botsford parish, county of Westmorland.
Prescott, Joseph ..	Baie Verte.	Parishes of Westmorland and Sackville.

York County.

McKay, James D.....	Fredericton	County of York.
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PRINCE EDWARD ISLAND.

Kings County.

McCormac, J. A.....	Souris.....	County of Kings.
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Prince County.

Davison, John.....	Bedeque.....	County of Prince.
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Queens County.

Hobkirk, W. C	Charlottetown ...	Province of Prince Edward Island.
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PROVINCE OF QUEBEC.

Gaspé County.

Veit, Fred..	Gaspé Basin... ..	That portion of the province south of the St. Lawrence to and including county of Bellechasse, but specially the counties of Bonaventure and Gaspé.
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Magdalen Island.

Arsenault, Azade.....	Grindstone island..	Magdalen islands.
Chevrier, J. A.	Amherst, Magdalen island.	That part of Magdalen islands comprising Entry, Amherst and Grindstone islands, also Harbour Basque lagoons.
Theriault, Bruno.....	House harbour Magdalen island.	That part of the islands including House harbour, Grosse Isle, Grand entry and bays and Bryon island.

7-8 EDWARD VII., A. 1908

List of Fishery Overseers in the Dominion of Canada, &c.—*Continued.*PROVINCE OF QUEBEC—*Concluded.**Saguenay County—North Shore.*

Name of Overseer.	P.O. Address.	Extent of Jurisdiction.
Cabot, Geo. E.	Fox bay. Anticosti island.	The Island of Anticosti and adjacent waters.
Blais, Alex.	(Winter address) Berthier en bas. (Summer address) Long Pt. Bradore, <i>via</i> Newfoundland.	North shore, from Blancs Sablons to Chicatica. (Bonne Esperance district).
Le Couvie, John.	(Winter address) Lobster cove, Gaspé. (Summer address) Cr. Commander of <i>Princess</i> .	North shore, from Chicatica to Cape Whittle (St. Augustin District).
Cormier, Achille.	(Winter address) Esquimaux point. (Summer) Romaine <i>via</i> Natashquan.	North shore, from Cape Whittle to Natashquan point (Romaine district).
Joncas, Richard.	Natashquan.	North shore, including Natashquan to Ste. Geneviève (Natashquan District).
LeBlanc, Eusebe.	Esquimaux point.	North shore, including Ste. Geneviève to Pigou (Mingan district).
Migneault, Theotime.	(Winter address) 140 Rue St. François Quebec. (Summer) Moisie.	North shore, including Pigou to Jambons (Moisie district).
Comeau, Nap. A.	Godbout.	North shore, including Jambons to Tadousac (Godbout District).

The following six names are merely Bounty Officers, exercising no other jurisdiction *re* fishery matters.

Forest, George.	Bonaventure river.	Bonaventure county, from Maguasha to and including Paspébiac.
Chapados, F. X.	Gascons.	Bonaventure Co., from Paspébiac to Gaspé Co.
Keays, John.	Little Pabos.	Gaspé county, from county line eastward to but not including Barachois, Malbay.
Carter, A. T.	Gaspé basin.	Gaspé county, from Barachois, Malbay, to Fame point, both included.
Letourneau, Louis.	Mont Louis.	Gaspé county, from Fame point to and including Claude river.
Verreault, Louis.	Petits Mechins.	Rimouski county.

MANITOBA.

McPherson, A. J.	Dauphin, Man.	Lake Winnipegosis and Manitoba.
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SASKATCHEWAN.

McKay, Henry.	Cedar lake.	Waters between district of Prince Albert on West and Grand rapids on Great Saskatchewan river, Sask.
McGregor, Chas. F.	Prince Albert.	District of Prince Albert, Saskatchewan.
Silverthorn, J. W.	Lumsden.	District of Long lake, Qu'Appelle river, bounded on south by base line tp. No. 16, on north by tp. No. 30, on east by east side to range 19, and on west by west side of range 27, all west of 2nd Meridian.

SESSIONAL PAPER No. 22

List of Fishery Overseers in the Dominion of Canada, &c.—*Continued.*

ALBERTA.

Name of Overseer.	P. O. Address.	Extent of Jurisdiction.
Wood, Ingraham.....	Pigeon lake	Pigeon lake and vicinity.

BRITISH COLUMBIA.

Galbraith, W. M.	14 Ridge road, Victoria.	British Columbia.
Harrison, Chas.	Masset	Queen Charlotte islands.
McPhadden, D.	Vancouver	British Columbia.
Wise, James	New Westminster...	Fraser river, north arm.

7-8 EDWARD VII., A. 1908

LIST OF OFFICERS IN CHARGE OF GOVERNMENT FISH HATCHERIES,
1907.

Name.	P. O. Address.	Province.	Rank.
Cunningham, F. H.	Ottawa.	Ontario.	Superintendent Fish Culture.
Finlayson, Alexander.	"	"	Inspector.
Walker, John.	"	"	Officer in charge Government Hatchery..
Armstrong, Wm.	Newcastle.	"	"
Parker, Wm.	Sandwich.	"	"
McNab, A. J.	Warton, Ont.	"	"
McCargar, J. K.	Belleville.	"	"
Deseve, A. L.	Magog.	Quebec.	"
Catellier, L. N.	Tadoussac.	"	"
Lindsay, Robert.	Gaspé basin.	"	"
Elliott, Joseph.	St. Alexis des Mts.	"	"
Robert, Alphonse.	Mont Tremblant.	"	"
Belknap, W. G.	Baldwin mills.	"	"
Mowatt, Alexander.	Campbellton.	New Brunswick.	"
McCluskey, Charles.	Grand falls.	"	"
Sheasgreen, Isaac.	Sonth Esk.	"	"
Savoy, Sebastien.	Shippigan.	"	"
LeBlanc, N. S.	Cape Bald.	"	"
Ogden, A.	Bedford basin.	Nova Scotia.	"
Harris, W. F.	Pictou.	"	"
Meagher, James.	Canso.	"	"
Carmichael, A. G.	N. E. Margaree.	"	"
Burgess, Frank.	Windsor.	"	"
Holroyd, A. W.	Windsor station.	P.E. Island.	"
Hooker, F. W.	Selkirk.	Manitoba.	"
Whitwell, Thomas.	Skeena river.	British Columbia.	"
Mitchell, D. S.	Granite Creek.	"	"
Robertson, Alexander.	Lillooet.	"	"
Robinson, Thos.	Harrison springs.	"	"
Roxburg, Wm.	New Westminster.	"	"
Bucknall, R. C.	Eivers inlet.	"	"
Pretty, A. W.	Hazelton.	"	"
Gibbs, H.	"	"	"
Kemp, Ernest.	Charlottetown.	"	Dominion Oyster Expert.

LIST OF CANADIAN GOVERNMENT CRUISERS AND NUMBER OF
CREWS, 1907.*O. G. V. Spain, Commander of Marine Service, Ottawa.*

Name of Vessel.	Commanders.	Winter Address.	Number of Crew.
Canada.	C. T. Knowlton, Capt.	Parrsboro, N.S.	53
Constance.	George M. May, Capt.	Quebec, P.Q.	22
Curlew.	Capt. Robinson, acting	St. John, N.B.	17
Falcon.	E. B. Williams	Vancouver, B.C.	5
Kestrel.	H. Newcomb, Capt.	Vancouver, B.C.	22
Princess.	W. Wakehan, Comdr.	Gaspé basin, P.Q.	27
Osprey.	J. Graham, Capt.	Cambridge road, P.E.I.	19
Petrel.	W. H. Kent, Capt.	Liverpool, N. S.	25
Vigilant.	E. Dunn, Capt.	Walkerville, Ont.	31
Total of Officers and Crews			221

SUPPLEMENT
TO THE
FORTIETH ANNUAL REPORT OF THE DEPARTMENT OF MARINE AND
FISHERIES FOR THE CALENDAR YEAR 1907.

MARINE

REPORTS
OF THE
HARBOUR COMMISSIONERS

FOR

TORONTO, QUEBEC, THREE RIVERS, BELLEVILLE, NORTH SYDNEY,
PICTOU AND MONTREAL, AND PILOTAGE AUTHORITIES.

CERTIFICATES TO MASTERS AND MATES

THE HARBOUR AND SHIPPING MASTERS, CERTAIN PORT WARDENS
AND STATEMENT OF WRECKS AND CASUALTIES

CHIEFLY UP TO THE

31st DAY OF DECEMBER, 1907

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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

1908

OTTAWA, August, 1908

Hon. LOUIS-PHILIPPE BRODEUR,
Minister of Marine and Fisheries,

SIR,—I have the honour to submit herewith the Supplement to the fortieth Annual Report of the Marine Branch of the Department of Marine and Fisheries, being for the year 1907, containing a statement of merchant shipping, wrecks and casualties; lists of certificates granted to masters and mates; the reports of the harbour commissioners of Toronto, Belleville, Quebec, Three Rivers, North Sydney and Montreal for 1907; 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,

F. GOURDEAU, Lt.-Col.,
Deputy Minister of Marine and Fisheries.

C O N T E N T S .

A.

	PAGE
Arichat, C. B., Pilotage Authority, Report of.....	155
Amherst, N. S., Pilotage Authority.....	154

B.

Belleville, Harbor Commissioners, Report of.....	85
Buctouche, N. B., Pilotage Authority, Report of.....	139

C.

Certificates of Masters and Mates for Foreign Sea-going Vessels.....	168
" " " Inland and Coasting Vessels	163
Caraquet, N. B., Pilotage Authority, Report of.....	140
Chatham, N. B., Port Warden's Report.....	160

H.

Harbour Commissioners' Report—

Toronto.....	88
Quebec.....	65
Three Rivers.....	81
Pictou, N. S.....	93
North Sydney, N. S.....	86
Belleville, Ont.....	85
Montreal, Que.....	1

Harbour Masters, Name of, Salaries, &c—

Ontario.....	156
Quebec.....	156
New Brunswick.....	157
Nova Scotia.....	158
Prince Edward Island.....	161
British Columbia	162

Halifax Pilotage Authority, Report of.....	144
Halifax, Port Warden, Report of.....	95
Louisburg Pilotage Authority.....	132

M.

Masters and Mates, Certificates of Competency, &c.....	163
Miramichi, N. B., Pilotage Authority, Report of.....	147
Montreal, Port Warden, Report of.....	102
" Harbour Commissioners, Report of	1
" Pilotage Authority, Report of.....	147

N.

Nanaimo, Pilotage authority, Report of.....	135
North Sydney, Harbour Commissioners, Report of	86
New Westminster, Pilotage Authority, Report of.....	130
North Sydney, Port Warden, Report of.....	100
Nanaimo Port Warden.....	97

P.

Port Hawkesbury, Port Warden's Report.....	98
Parrsborough Pilotage Report	155
Pictou, Harbour Commissioners, Report of.....	93
" Pilotage Authority, Report of.....	131
" Port Warden, Report of.....	98
Prince Edward Island, Port Warden, Report of...	99
Pilotage Authority, Reports, Quebec.....	122
" " St. John, N. B.....	151
" " Halifax, N. S.....	144
" " Pugwash.....	136
" " Victoria and Esquimaux, B.C.....	133
" " Vancouver, B. C.....	137
" " Nanaimo, B. C.....	135
" " Pictou, N. S.....	131
" " Sydney, C. B.....	61
" " Louisburg, N. S.....	132
" " St. Mary's and Liscomb, N. S.....	142
" " St. Anne, N. S.....	134
" " Arichat, C. B.....	155
" " Parrsboro', N. S.....	155
" " Pugwash, N. S.....	136
" " Buctouche, N. B.....	139
" " New Westminster B. C.....	130
" " Caraquet, N. B.....	140
" " Amherst N. S.....	154
" " Montreal, P. Q.....	113
" " Miramichi, N. B.....	147
" " Restigouche, N. B.....	140
" " Shediac, N. B.....	154
Port Warden's Report of Montreal, Que.....	102
" " at Quebec, Que.....	108
" " Halifax, N. S.....	95
" " Pictou, N. S.....	98
" " Port Hawkesbury, N. S.....	98
" " Prince Edward Island.....	99
" " Yarmouth, N. S.....	101
" " St. Andrew's, N. B.....	112
" " Sydney, N. S.....	109
" " Nanaimo, B. C.....	97
" " Westport, N. S.....	112
" " Vancouver, B. C.....	109
" " Victoria, B. C.....	97
" " North Sydney, N. S.....	100
" " Chatham N. B.....	100

SESSIONAL PAPER No. 23.

Q.

Quebec Harbour Commissioners, Report of.....	65
“ Pilotage Authority, Report of.....	122
“ Port Warden, Report of.....	108

R.

Restigouche, Pilotage Authority, Report of.....	140
---	-----

S.

St. Andrew's N. B., Port Warden, Report of.....	112
St. John, N. B., Pilotage Authority, Report of.....	151
St. Mary's and Liscomb, Pilotage Authority, Report of	142
Sydney, C. B., Pilotage Authority, Report of.....	61
“ Port Warden, Report of.....	109
Shipping and Discharging of Seamen, Returns of.....	170
Shediac, N. B., Pilotage Authority.....	154
St. Anne, N. S., Pilotage Authority.....	137

T.

Tonnage of Maritime States, &c, 1906-7.....	10
Three Rivers, Harbour Commissioners, Report of.....	81
Toronto, Harbor Commissioners, Report of.....	88

V.

Vancouver, B. C., Pilotage Authority, Report of.....	137
“ Port Warden, Report of.....	109
Victoria, B. C., Port Warden, Report of.....	97
Victoria and Esquimault, Pilotage Authority, Report of.....	133

W.

Wrecks and Casualties, &c.....	175
Wesport, Port Warden, Report of.....	112

Y.

Yarmouth, N. S., Port Warden of.....	101
--------------------------------------	-----

APPENDIX I.

REPORT OF THE HARBOUR COMMISSIONERS OF MONTREAL FOR THE
YEAR ENDING DECEMBER 31st, 1907.

COMMISSIONERS:

MAJOR GEORGE W. STEPHENS, PRESIDENT.

L. E. GEOFFRION, Esq.

C. C. BALLANTYNE, Esq.

DAVID SEATH, SECRETARY-TREASURER.

F. W. COWIE, B.A. SC., M. INST. C.E., CHIEF ENGINEER.

JAMES MCSHANE, HARBOUR MASTER.

CAPT. T. BOURASSA, DEPUTY HARBOUR MASTER.

ROBERT A. EAKIN, WHARFINGER AND PAYMASTER.

Hon. L. P. BRODEUR, K. C., M.P.,
Minister of Marine and Fisheries.

Sir,—

The Commissioners have the honor herewith to submit a report covering the work undertaken and accomplished from the 1st January, 1907, to 1st January, 1908, within the Port of Montreal, which they trust will meet with your approval.

CONCRETE FLOORS.

To prepare as far as might be possible for the season of navigation of 1907 was first undertaken. It was therefore necessary to at once lay the concrete floors of the then uncompleted sheds, five in number. This work was undertaken by arrangement with the Contractors, Messrs. Peter Lyall & Sons, and five complete floors were laid and delivered to the Commissioners on May 1st, 1907, ready for use by Steamship Companies, a matter of considerable satisfaction to them, as had those floors not been laid during the winter time business interests would have suffered as the sheds would not have been available at the opening of navigation, and the laying of the concrete floors would have compelled the Shipping Companies to vacate their valuable berths for at least five weeks each. The work of laying these floors was difficult. Each shed had to be closed in so as to ensure satisfactory results, and the work was carried out at an additional cost of \$5,000.00 per shed. This however, enabled the Commissioners to negotiate leases with the Steamship Companies for the spaces and \$14,600.00 was received in rentals for the season of 1907.

6-7 EDWARD VII., A. 1908.

RETIREMENT OF MR. JOHN KENNEDY.

The resignation of Mr. John Kennedy, Chief Engineer, owing to failing eyesight was placed in the hands of the Commissioners shortly after the appointment of the present Board, and his very valuable services to the Port and to the country were recognized in fitting terms to him, and so that his valuable knowledge and services might be available in the future, the Commissioners appointed him Consulting Engineer at a salary of

\$5,500.00 for the first year.

\$5,500.00 for the second year.

\$4,500.00 for the third year.

\$4,000.00 for the fourth and succeeding years.

During the year his services have been called upon from time to time and have been found of great value to the Board. Through a successful operation upon his eyes within the last few weeks it is hoped that his services may prove of still greater assistance in the future.

APPOINTMENT OF MR. F. W. COWIE.

To replace Mr. John Kennedy, by arrangement with the Department of Marine and Fisheries, Mr. F. W. Cowie, Superintending Engineer, St. Lawrence Ship Channel, was permitted to act as Chief Engineer.

The report of his Department, which is attached hereto, is itself the best tribute to the energy, organization and work of the season. The Board desire to bear witness to the conscientious and thorough manner in which Mr. Cowie's work as Chief Engineer, during the past season, has been performed.

CLAIM OF PETER LYALL & SONS.

On the 9th January the Board received from Messrs, Peter Lyall & Sons a claim for extras amounting to \$725,000.00 due to the delays, changes and increased cost of labor and material up to January 1st, 1907. No arrangement with the Contractors could be made for a continuance of the general work under contract until this claim was dealt with. It was an imperative duty devolving upon the new Board, therefore, to settle this claim in some way before starting out on the completion of the contract for the new sheds with Messrs. Peter Lyall & Sons. To that end a commission of three experts was appointed to study the whole situation. The Commission consisted of Messrs. Henry Holgate, Consulting Civil Engineer; L. A. Audette, Advocate, Registrar of the Exchequer Court of Canada; F. W. Cowie, Chief Engineer. These gentlemen met, deliberated and made a complete report recommending the payment of \$335,000.00 in full settlement of the claim and the Commissioners, after giving the matter full consideration, agreed to carry out the recommendation made and paid balance of \$100,000.00 to be retained until the final completion of the contract.

REMODELLING OF OFFICE BUILDING.

On occupying the office building, the Commissioners made a thorough examination which resulted in the imperative necessity of putting in new drains, new plumbing, new heating apparatus, painting papering, and cleaning the building from top to bottom, and its equipment with suitable office furniture in keeping with the requirements of a modern business office.

SESSIONAL PAPER No. 23.

REORGANIZATION.

The reorganization of the different departments was then taken up and the strength of the permanent staff adjusted to the needs of a business office.

APPRAISAL OF ASSETS.

The appraisal of all plant and properties belonging to the Commissioners was entrusted to the Canadian Appraisal Company so that from the start an accurate independent valuation might be set upon the assets, liquid and fixed, within the control of the Board.

DEPARTMENTAL REPORTS.

A system of weekly reports was worked out so that from week to week, accurate and detailed information might be placed before the Commissioners from each Department. These reports are comparative and give weekly detailed history of each part of the organization.

PURCHASING DEPARTMENT.

A Purchasing Department was organized and a system of checking the receipt of articles purchased is now in working order and has proved satisfactory.

TRAFFIC DEPARTMENT.

A traffic Department was organized with a view of taking charge of the railway traffic on the wharves and controlling and systematizing the vehicular traffic in the hope of minimizing the congested state of the wharves. Under the old system the railways were enjoying joint privileges of use of tracks at a stated rental per annum. This brought into conflict as many different interests as there were railways using the wharf, in consequence of which the merchants and trade of the port suffered.

Under the leases in force was provided in addition to the annual rental, that the railways should pay proportionately for the upkeep of the tracks on certain conditions. The Commissioners found that this provision had not been enforced, in consequence of which, the tracks on the wharf were found to be in a dilapidated and neglected state. Steps were therefore taken to reclaim from the railways the money necessary to carry out the provision of the leases then in force, and agreements were entered into by which the Railway Companies were to pay the amount necessary to put the tracks in good condition.

By arrangement with the different railways, a working agreement was drawn up whereby the necessary motive power was rented at a stated sum per day to the Commissioners.

The appointment of a practical Superintendent of Railway terminals was accomplished by the engagement of Mr. J. Vaughan, who held a similar position for the Canadian Pacific Railway for the past 20 years.

Under his direction the Traffic Department has been organized.

The Commissioners have pleasure in adding that during the entire season just closed, M. Vaughan and his staff have carried out their duties without a hitch, with satisfaction to the railways, merchants and all concerned. The new organization has resulted in greater efficiency, less cost of handling to the Railway Companies and the merchants, and a very much greater handling power added to the existing trackage. This Department received and dispatched 70,000 cars of which 20,000 were loaded and unloaded direct into the sheds or ships.

It is worthy of notice that in the re-adjustment of railway tracks on the wharves, they have been so placed that each pier will now have alongside of each shed two railway tracks on the inner side, and where practicable one track between the shed and the ship. In this way during the season it has been possible to load and unload 20,000 cars of freight directly in this manner, and at an average of 20 tons per car. This means 400,000 tons upon which the saving in handling is estimated to be not less than 50 per cent. or \$80,000.00.

The success of the Traffic Department during the season of 1907 has warranted the purchase by the Commissioners of three locomotives, this ensuring the permanent working of the Department.

CONFERENCES.

Conferences were undertaken with the different interest as follows:—

- Board of Trade.
- Chambre de Commerce.
- Corn Exchange.
- Produce.
- Shipping Federation.
- Can. Pac. Railway Steamship lines.
- Cartage.
- Railway.
- Coal.
- Lumber.

Each interest gave the Commissioners valuable information with reference to their particular needs. This has been one of the important elements in the year's successful work, and the Commissioners desire to place on record their appreciation of the co-operation of all Interests towards the betterment of conditions in the Port.

LIFE SAVING.

Means were taken early in the season to provide additional protection to life in the dangerous places of the Harbour, with a view of minimizing drowning accidents which during the year 1906 numbered 46.

A course of instruction in first aid to the injured was arranged for through Dr. W. H. P. Hill, who delivered a complete course of instruction in this matter to a class of 172 policemen.

It is a pleasure to record that during the past season of navigation not a single fatal drowning accident occurred from the wharves in the Harbour.

FIRE PROTECTION.

For the better protection of the immense cargoes inward and outward, while in the sheds and in transit over the wharves, the tug boat "St. Peter" was equipped and manned exclusively as a fire tug. She has been in active service day and night throughout the season. While no disastrous conflagrations have taken place this boat has been of material assistance in putting out fires in the coal stored by one of the lessees of coal space on the Bickerdike Pier, and on the 6th of November was made use of in putting out the fire at Dominick Park. The only water available at this fire was from the tug "St. Peter."

So as to have some simple means at hand at once the Commissioners thought it advisable during the year to place at convenient points on the wharf three hand hose reels carrying 500 feet of hose, available at a moment's notice. This will have for immediate result the reduction in the rate of fire insurance both on merchandise in the sheds and on the property belonging to the Commissioners.

SESSIONAL PAPER No. 23.

Fire alarm boxes have been placed conveniently on all the piers and at convenient points along the river front.

SCAVENGING DEPARTMENT.

Scavenging and wharf cleaning Department has been in operation during the year, and notwithstanding the large constructional works under way, it has been a pleasure to the Commissioners to hear from time to time that their efforts towards keeping the wharves reasonably clean have been appreciated by the public generally.

SAW MILL.

The preparing of lumber required in the general upkeeping and construction of the wharves was made the subject of deliberations which led to the purchase of a Saw Mill. Machinery was purchased and erected at a convenient place in the Harbour and has been working practically all summer with the result that the Commission has been able to carry on the work formerly paid for to outdoor concerns, and at a considerable saving.

NEW EQUIPMENT.

A seventy-five ton floating crane is under order with the firm of Vickers, Son & Maxim, Limited to be delivered during the season of 1908. The designs for this crane are along the most modern lines adopted by the best European ports. It will be the most efficient of its kind on this continent.

PERMANENT STEEL SHEDS.

The Contractors have completed a record year's work. It will, however, take some time to complete all of the 14 sheds now under contract.

It is a matter of considerable difficulty to carry on such large constructional works, and at the same time afford ample facilities for the handling of the Port's business. The different interests doing business in the port have recognized these difficulties and have in every way co-operated with the Commissioners in order that no undue delay might occur in the completion of this work.

At the beginning of the present year, none of the permanent sheds was in condition to be used, but owing to the winter's work the lower floors of the five sheds were completed at the opening of navigation and used by the Shipping Companies, and the lower floors of two others were completed during the season and also used. At the close of navigation the foundations for the remaining seven sheds were completed.

The Commissioners hope that by the opening of navigation 1908, three more sheds will be so far advanced as to be used, and that by the opening of navigation 1909, all of the fourteen sheds will be about completed.

When all of the sheds are completed, the storage capacity of the central harbour will be increased, owing to the adoption of the two-storey plan, by nearly 750,000 sq. ft.

The fourteen two-storey, permanent steel sheds for the high level piers and wharves, take the place of the temporary single-storey wooden sheds owned by the Shipping Companies, which before the wharves were raised, had to be put up each spring and taken down in the fall, carted from the wharves, and stored for the winter.

(The wooden sheds hardly provided half the storage which will be available in the new sheds.) This operation was carried on each year by the Shipping Companies at their own expense, the cost of which has been variously stated by them to be from \$3,000.00 to \$8,000.00 per shed per annum. The Shipping Companies will

6-7 EDWARD VII., A. 1908.

save all this expense and loss of time and annoyance by the use of the steel sheds, which will afford more than double the accomodation existing formerly, and being permanent can be used all the year round, in summer by the Shipping Companies and in winter by the railways, and merchants. Both the Canadian Pacific and Grand Trunk Railways are now using some of the sheds as terminals for the handling of freight.

It is furthermore a pleasure to report that the merchants and shipping people generally have taken advantage of the Commissioner's offer to give free storage in the upper storeys of the sheds until the 31st December, 1907, of import freight which was delivered in the second storey by the ship's tackle, without any further equipment.

DEVELOPMENT PROBLEMS.

With a view of studying the problems connected with the further development of this port, the commissioners deemed it a wise policy to employ the services of a distinguished engineer whose specialty has been the study and development of ports throughout the world. Mr. R. C. H. Davison, of London, England, was engaged for this purpose. This gentleman came to Canada with the highest recommendations, and spent some time during the past summer in studying the actual conditions prevailing.

On the 15th August, Mr. R. C. H. Davison, Mr. John Kennedy, consulting engineer, and Mr. F. W. Cowie, chief engineer, presented an interim report, concurred in by the three, upon the means of access to the upper storeys of the sheds. This report describes in detail, five different feasible methods of making available the upper storeys, states the cost of installation and the cost of handling per ton under each system.

The different systems will have serious study. The Commissioners hope with this information to be able to further increase the efficiency of the Port.

There is under study at the moment by Mr. R. C. H. Davison. Mr. John Kennedy and Mr. F. W. Cowie, a scheme of port development over an extended period to be worked out year by year so that on completion, a harmonious whole will be the result. The report on this intended scheme and the plans connected therewith have required the preparation by the Harbour staff of a very careful engineering data, all of which has taken a great deal of study and pains to prepare. It is hoped, that the final report will be a valuable basis for the consideration of future development.

DEVELOPMENT OF EASTERN HARBOUR.

To take care of the great development of Canadian trade, vastly greater harbour facilities must be provided.

It should not be forgotten that through the creation of a Terminal Department under the harbour commission, all the railway traffic on the harbour tracks is controlled and regulated by one authority, which will give railway facilities over all roads to every manufacturing interest settling in the east end in addition to deep water communication. These two facts alone ought to cause a tremendous growth of industries in the next five years. To meet this, serious studies have been made with reference to the early development of the eastern harbour which must be prepared to take care of the increased business of the country now in sight.

ACCOMMODATION OF RIVER CRAFT.

Increased and better accomodation must be provided for the different river craft and ferry service whose business is rapidly increasing, and for our local brick and lumber dealers doing a large business between this port and the towns and villages along the river.

SESSIONAL PAPER No. 23.

DRY DOCK, FIRE TUG, ETC.

With the great anticipated increase in trade of all kinds to be handled, the manifest increase in the number of ocean and river boats coming to the port, the Commissioners recommend two most urgent needs, as a matter of insurance against accident and fire.

1. The building of a dry dock.
2. The purchase of a modern fire tug.

It is not right to ask nearly $5\frac{1}{2}$ millions of tons shipping to use our national port and not have the means to repair and refit ships.

While as yet no great conflagration has visited our Harbour, it will be unwise to wait until after it has happened to provide the means for its prevention. As one-third of the country's trade passes in and out, the matter of insuring its safety is most important.

REDUCTION OF INSURANCE RATES.

Since 1900, the insurance rates on merchandise and grain via the St. Lawrence route have been reduced about fifty per cent.

NIGHT NAVIGATION.

During the past season, the St. Lawrence Ship Channel has been so successfully buoyed and lighted that ocean liners have come up to Montreal at will during the night.

This will prove of great advantage to the port, and make the St. Lawrence route more popular than ever for both passenger and freight business.

HARBOUR ELEVATOR.

The Harbour Commissioners' elevator has not been used to anything like its capacity during the present season, although the grain trade has had one of its most prosperous years. This is explainable by the fact that the Grand Trunk elevator with its feeding system of railway takes care of practically all the grain brought by rail to the port. The Montreal Grain Elevating Co., with its seventeen floating grain elevators, and its intimate freight relations with the Montreal Transportation Co., takes care of the bulk of the water borne grain. The Canadian Pacific Railway has not, during the present season, been bringing grain in any quantity to the Port of Montreal. The Commissioners having no barges to lighter grain out, and no conveyer system to deliver grain to steamships, are some of the reasons why their elevator has not done more business, but they, however, are in hopes that with the completion of the conveyor system now under construction, which will obviate the necessity of ships moving around the harbour to receive their cargo, considerable grain will be attracted to the Harbour Commissioners' elevator.

PART OF WORK ACCOMPLISHED DURING THE SEASON OF 1907.

$1\frac{1}{2}$ million tons of freight handled by Traffic Department.

400,000 tons of freight handled direct between car and shed and ship, or vice versa.

6 acres permanent scoria paving laid, or 28,234 sq. yds.

$5\frac{1}{2}$ sq. acres new concrete floor laid during winter.

$18\frac{1}{2}$ sq. acres new concrete floor laid since May 1st, 1907.

$2\frac{1}{2}$ sq. acres reinforced concrete roof laid since May 1st, 1907.

6-7 EDWARD VII., A, 1908.

1600 tons steel erected since May 1st, 1907.
 3500 tons steel manufactured since May 1st, 1907.
 1000 tons steel delivered since May 1st, 1907.
 3786 Raymond concrete piles driven since May 1st, 1907. (Designed to carry shed loads of 150,000 tons.)
 6500 cu. yds. of concrete foundation laid since May 1st, 1907.
 The whole of Jacques Cartier pier raised to high level.
 3 miles of new railway track laid and ballasted.
 21 3-4 miles old railway track repaired.
 600 ft. new permanent concrete wharf erected, in addition to Harbour dredging, blasting and filling.

SHIPPING USING PORT DURING 1907.

742 sea going vessels with a tonnage of.....	1,923,658 tons.
14,420 inland vessels with a tonnage of.....	3,620,950 "
Total tonnage.....	5,544,608 "

CAPACITY OF PRESENT HARBOUR AND SHIP CHANNEL.

Steamships drawing 29 feet can use channel to Montreal.
 Navigation opened April 27th, 1907.
 Navigation closed Dec. 13th, 1907—7 months and 20 days.
 Least depth in channel, 30 ft. 10 inches.

FINANCES.

The revenue for the year has been the largest in the history of the port.

Receipts.	1907.	1906.
Wharfages inwards.....	\$ 225,513.67	\$ 210,397.23
“ outwards.....	96,659.62	97,365.32
“ local.....	59,254.01	53,146.54
Rental harbour tracks, etc.....	22,847.26	20,277.23
Grain elevator.....	7,970.63	6,885.76
Rental new sheds.....	14,600.00	.....
Switching cars on wharves.....	71,815.93	.....
	<u>\$ 498,661.12</u>	<u>\$ 388,972.08</u>

CONGESTION ON THE WHARVES.

At the opening of navigation it was found that the additional charges for goods remaining on the wharves beyond the time limit allowed by by-law, were in some cases so low that it was cheaper to pay the additional charges than storage, and the goods were allowed to remain upon the wharves. This annoying condition was removed by the imposition of higher charges which were levied in every case, and which had the effect of goods being promptly removed, thus affording more space for the handling of cargoes.

In terminating this report, the Commissioners desire to express their appreciation of the many courtesies extended to them by the Honourable the Minister of Marine and Fisheries, for the freedom allowed them in the exercise of their functions, and for the ready consent given to all applications made for approval of work considered necessary for the development of the Harbour.

SESSIONAL PAPER No. 23.

To all the different interests doing business in the Port of Montreal, to the Merchants, Corporations, Shippers and, as well as to the different working staffs, the thanks of the Commissioners are due for making possible a successful year's work.

Respectfully submitted.

(Signed) G. W. STEPHENS, President.

L. E. GEOFFRION,

C. C. BALLANTYNE,

Commissioners.

Montreal, January 2nd, 1908.

REPORT OF SECRETARY-TREASURER OF THE HARBOUR COMMISSIONERS OF MONTREAL FOR THE YEAR ENDED 31st DECEMBER, 1907.

Montreal, April 27th, 1908.

COL. F. GOURDEAU,

Deputy Minister of Marine and Fisheries,

Ottawa.

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, Summarized Statement of the Operations of the Corporation for the year ended 31st December, 1907, which covers the first year of administration under the present Commissioners.

The harbour revenue was \$404,274.56, an increase of \$23,088.24 over that of the previous year. The increases were—wharfages on imports, \$15,116.44; local wharfages, \$6,107.47; rentals, etc., \$2,570.03; in all, \$23,793.94, while the wharfages on exports decreased \$705.70, leaving the net increase as above.

The revenue from the grain elevator was \$7,970.63, an increase over that of the previous year of \$1,084.87.

The lower floors of five of the permanent wharf sheds were rented for \$14,600.00

A Traffic Department was organized in May last, and there was received for switching cars on the wharves, \$71,815.93.

The revenue from all sources, as enumerated above, was \$498,661.12, and the disbursements on that account were \$497,837.86.

The interest on loans was \$336,277.86, of which \$259,167.24 was for harbour improvements; \$55,401.20 on account of the New steel sheds; and \$21,907.42 for the grain elevator.

The amount disbursed on capital Account was \$1,745,709.91, of which \$40,273.60 was on account of the grain elevator conveyor system; \$48,098.43 for harbour railway tracks; \$1,277,476.16 on account of the New Steel Sheds; and the balance of \$379,861.72, on account of harbour improvements.

The following loans were received from the Government:—\$25,000.00 under the Act 1, Edward VII, Chap. 9; \$1,010,000.00 under the Act 3, Edward VII, Chap. 36.; \$500,000.00 under the Act 6-7, Edward VII, Chap. 30, making a total of \$1,535,000.00.

The bonded debt at 31st December, 1907, was \$10,347,000.00, of which \$1,972,000.00 is due to the public, and \$8,375,000.00 due to the Government, and upon which the average rate of interest is 3.35 per cent.

I have the honour to be,

Sir,

Your obedient servant,

DAVID SEATH, Secretary.

SESSIONAL PAPER No. 23.

Elevator conveyor equipment	40,273.60
Harbour Railway	48,098.43
New concrete wharf, section 35.....	120,405.19
Harbour improvements.....	167,679.37
New steel sheds.....	1,277,476.16
Disbursements on Capital %.....	1,772,419.66
Disbursements on Revenue %.....	497,837.86
Total Disbursements.....	2,270,257.52
Debentures, Series O, due 5th July, 1906, retired.....	1,000.00
Debentures, Series R, due 5th July, 1906, retired.....	500.00
Bank of Montreal, overdraft at 31st Dec., 1906.....	201,480.48
Less payable 31st Dec., 1907:..	2,473,238.00
Interest accrued and coupons outstanding.....	\$281,093.07
Outstanding accounts.....	26,713.87
Balance at 31st Dec 1907:	
Cash and cheques on hand.....	\$4,887.83
Bank of Montreal, coupon account... 100.00	
Discount on debentures H. & J.....	\$ 4,987.83
Sundry accounts receivable...	13,718.63
Value of materials, in stock...	151,388.08
	127,111.43
	297,205.97
	2,462,637.03

DAVID SEATH, Secretary-Treasurer.

Verified: RIDDELL, STEAD, GRAHAM & HUTCHISON. C. A., Auditors.

REPORT OF THE HARBOUR MASTER OF THE PORT OF MONTREAL FOR THE YEAR 1907.

January 3rd, 1908.

DAVID SEATH, ESQ.,

Secretary,

Harbour Commissioners of Montreal.

SIR,—

I beg to submit for the information of the Harbour Commissioners of Montreal, the following as my Annual Report for the year ended 15th December, 1907.

Appended thereto will be found six comparative statements, showing respectively for the past ten years:—

(1) The number, tonnage and classification of sea-going vessels that arrived in port.

(2) Those that arrived from the maritime Provinces.

(3) Number and tonnage of inland vessels.

(4) The dates of the opening and closing of navigation etc.

(5) The number and tonnage belonging to the different nationalities.

(6) The number and tonnage of sea-going and inland vessels.

From these statements it will be seen that 742 sea-going vessels arrived in port during the past season, with a tonnage of 1,925,986 tons, a decrease of 78 vessels, and a decrease of 47,237 tons from the previous year.

Of these vessels 721 were built of iron and steel with a tonnage of 1,923,658 tons, and 21 were built of wood with a tonnage of 2,328 tons.

Of inland vessels there arrived 14,420 with a tonnage of 3,620,950 tons, an increase of 1,863 vessels, and of tonnage 524,784 tons, making a grand total of vessels of all classes of 15,161 and a tonnage of 5,546,936 tons, an increase of 1,784 vessels of all classes, and 478,539 tons over the previous year.

As will be seen from the foregoing figures there has been a decrease of 78 sea-going vessels and a decrease of 47,237 tons, and an increase of 1,863 inland vessels and 524,784 tons, making a total increase of 1,784 vessels of all classes and 478,539 tons over the previous year.

The S.S. "Dunelm," with a cargo of pig-iron, arrived in port on the 13th day of December and will winter here.

The whole respectfully submitted.

Yours truly,

JAMES McSHANE,

Harbour Master.

SESSIONAL PAPER No. 23.

PORT OF MONTREAL.

COMPARATIVE STATEMENT showing the Number, Tonnage and Classification of Sea-going Vessels that arrived in port from the the Maritime Provinces, the past ten years.

Years.	Steamships.	Tonnage.	Ships.	Tonnage.	Barques.	Tonnage.	Brigs.	Tonnage.	Brigs.	Tonnage.	Schooners.	Tonnage.	Total No. of Vessels.	Total Tonnage.
1898...	327	372,274	...	...	...	...	...	...	...	...	14	1,397	341	373,671
1899...	336	415,825	...	...	...	...	...	...	...	...	7	646	343	416,471
1900...	279	352,002	...	...	...	...	1	169	...	...	15	2,564	295	354,735
1901...	282	434,140	...	...	1	999	...	...	...	...	10	991	293	436,130
1902...	311	466,671	...	...	...	...	...	...	...	...	11	2,063	322	468,734
1903...	303	468,100	...	...	...	...	...	...	...	...	15	4,648	318	472,748
1904...	366	582,819	...	...	...	...	...	...	...	...	13	3,238	379	586,057
1905...	364	580,485	...	...	1	626	...	...	...	...	26	4,116	391	585,227
1906...	367	588,980	...	...	...	...	...	...	...	...	14	3,408	381	592,388
1907...	343	579,930	...	...	...	...	...	...	...	...	18	7,042	361	579,930

J. McSHANE, Harbour Master.

6-7 EDWARD VII., A. 1908.

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 port at one time.

Years.	Steamships.	Tonnage.	Ships.	Tonnage.	Barques.	Tonnage.	Brigs.	Tonnage.	Brigs.	Tonnage.	Schooners.	Tonnage.	Total No. of Vessels.	Total Tonnage.	Number in port.
1898...	830	1,567,436	2	3,023	12	10,031	...	...	5	1,478	19	2,104	868	1,584,072	42, Aug. 1
1899...	773	1,509,668	...	...	7	3,530	...	...	3	1,048	18	3,365	801	1,517,611	39, Jul. 29
1900...	692	1,382,675	...	...	2	891	...	...	4	875	28	9,415	726	1,393,886	27, Jun. 28
1901...	707	1,438,081	...	...	4	2,240	...	...	...	...	31	12,727	742	1,453,048	25, Jul. 8
1902...	729	1,531,891	...	...	9	4,427	...	...	...	...	20	4,954	758	1,541,272	29, Oct. 9
1903...	779	1,882,295	1	1,543	2	1,388	...	...	...	...	20	5,678	802	1,890,904	35, June 8
1904...	774	1,849,907	...	...	3	1,144	...	...	1	318	18	5,328	796	1,856,697	23, Sept. 10
1905...	786	1,918,002	...	...	4	2,950	...	...	...	...	43	19,104	833	1,940,056	27, Oct. 4
1906...	787	1,961,859	...	...	3	1,872	...	...	...	...	30	9,432	820	1,973,223	26, May, 28
1907...	724	1,918,944	...	...	...	...	...	...	...	...	18	7,042	742	1,925,986	29, May, 24

J. McSHANE, Harbour Master.

SESSIONAL PAPER No. 23.

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.	
1898.....	6,941	1,807,892	200.....	Aug. 12
1899.....	8,877	1,899,097	216.....	July 28
1900.....	8,347	1,669,494	219.....	June 20
1901.....	8,450	1,683,186	167.....	June 28
1902.....	9,395	1,885,250	209.....	July 23
1903.....	15,338	2,415,791	225.....	June 26
1904.....	10,063	2,354,975	180.....	July 13
1905.....	11,112	2,785,551	175.....	June 19
1906.....	12,557	3,095,174	124.....	July 8
1907.....	14,420	3,620,950	105.....	July 8

J. McSHANE,
Harbour Master.

PORT OF MONTREAL.

COMPARATIVE STATEMENT showing the date 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.	
1898.....	March	31	Dec.	12	April	26	Nov.	28
1899.....	April	24	"	30	"	27	"	29
1900.....	"	21	"	10	"	26	Dec.	3
1901.....	"	21	"	10	"	25	Nov.	25
1902.....	"	3	"	4	"	17	Dec.	4
1903.....	"	2	"	10	"	26	Nov.	28
1904.....	"	25	"	9	May,	4	"	27
1905.....	"	19	"	12	"	2	"	30
1906.....	20	20	"	2	April	28	Dec.	2
1907.....	"	23	"	15	May	2	Nov.	29

J. McSHANE,
Harbour Master.

PORT OF MONTREAL.

STATEMENT showing the Nationality, and
Tonnage of Sea-going Vessels, that arrived
in Port during the season of
1907, that were navigated by
43,888 Seamen.

NATIONALITY.	Number of Vessels.	Tonnage.
British.....	522	1,525,095
Norwegian.....	192	357,801
American.....	12	10,735
Danish.....	7	12,081
Swedish.....	8	17,024
German.....	1	3,250

PORT OF MONTREAL.

COMPARATIVE STATEMENT showing the Number and Tonnage of Sea-going and In-
land Vessels, that arrived in Port, the past ten years.

YEARS	Sea-going		Inland.		Grand Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
1898...	868	1,584,072	6,941	1,807,892	7,809	3,391,964
1899...	801	1,517,611	8,877	1,899,097	9,678	3,416,708
1900...	726	1,393,886	8,347	1,669,494	9,073	3,063,380
1901...	742	1,453,048	8,450	1,683,186	9,192	3,136,234
1902...	758	1,541,272	9,395	1,885,250	10,153	3,426,522
1903...	802	1,890,904	15,338	2,415,791	16,140	4,306,695
1904...	796	1,856,697	10,063	2,354,975	10,859	4,211,672
1905...	833	1,940,056	11,112	2,785,551	11,945	4,725,607
1906...	820	1,973,223	12,557	3,095,174	13,377	5,068,397
1907...	742	1,925,986	14,420	3,620,950	15,161	5,546,936

J. McSHANE,
Harbour Master.

SESSIONAL PAPER No. 23.

REPORT ON THE WORKS FOR THE IMPROVEMENT AND MAINTENANCE OF THE HARBOUR OF MONTREAL FOR THE YEAR 1907.

F. W. COWIE, M. INST., C.E., Chief Engineer.

Montreal, December 31st, 1907.

DAVID SEATH, Esq.,
Secretary, etc.,
Harbour Commissioners of Montreal.

Sir,—

I have the honour by direction, to present the following Annual Report on the Operations for the Improvement and Maintenance of Montreal Harbour during the year ended 31st December, 1907.

THE STEEL FREIGHT SHEDS.

In January, 1907, under the new Board of Harbour Commissioners, it was decided to lay in winter the concrete flooring of the lower storeys of Sheds Nos. 2, 4, 7, 8 and 9; which work was authorized by Order-in-Council of February 8th, 1907. This action permitted of the floors of the five sheds being ready for the opening of navigation, so that the use of the sheds was not interfered with during the busy season.

On the re-organization of the Engineering Staff on February 1st, 1907, and in view of the difficulties in connection with two engineers, an Order-in-Council was passed on February 4th, 1907, and agreed to by the Contractors, constituting Mr. F. W. Cowie, the Chief Engineer of the Commissioners, the "Engineer" referred to in the contract.

The Contractors by special agreement with the Commissioners started work on February 11th, 1907, on Shed No. 2; and Sheds Nos. 2, 4, 8, and 9 had all their concrete flooring laid before the first of May, 1907.

The plans of the shore conveyor galleries and towers, which had been under discussion for some time, were finally decided upon and approved by Order-in-Council dated October 23rd, 1906, and a pound price contract was signed by the Commissioners on February 8th, 1907. The work of erecting the structural steel of these shore conveyor galleries and towers was started September 5th, 1907, and has been pursued actively since that date.

In the fourteen sheds under contract the changes for the first group of seven had been decided upon, and alteration contracts made.

Early in the year, the question of the immediate commencement of the second group of seven sheds was taken up.

The plans were modified to meet the requirements resulting from experience in the use of the seven sheds already constructed.

The alterations already embraced in the contracts for the first seven sheds were specified.

The floors were designed to meet the views of the Shipping Companies.

Concrete permanent piles were substituted for wooden ones.

Provision was made to allow of putting tracks in front of the sheds.

Covered wooden sliding doors were to be replaced by steel doors.

6-7 EDWARD VII., A. 1908.

All the required alterations were specified and the Contractors undertook the work at an additional cost of \$232,984.93 or \$33,000.00 per shed, as compared with \$31,000.00 per shed for the first seven, but with permanent foundations and steel doors, added.

The Contract for the alterations was approved by Order-in-Council of May 8th, 1907, and signed on the 11th.

The work commenced immediately and has progressed according to the programme, throughout the season, without the claim of a single dollar of extras being submitted.

The Shipping Companies were obliged to move from one berth to another, and they deserve to be complimented on the fact that they cheerfully contributed, in this way to the successful progress of the work.

During the winter months 5 1-2 sq. acres of new concrete flooring was laid, and during the year a total 18 1-2 sq. acres.

The amount of reinforced concrete roofs laid during the season was 2 1-2 acres.

About 1,600 tons of steel was erected, 3,500 additional tons was manufactured, with 1,000 tons of raw steel now on hand to be manufactured and erected in 1908.

For the second group of seven sheds, 3,786 Raymond concrete piles were driven, averaging about 17 feet long. The wooden piles, 8 to 12 inches in diameter at the large end, were designed to carry a load of from 22 1-2 to 25 tons per pile. The concrete piles, 19 inches in diameter at the top end, were designed to carry from 30 to 50 tons.

The cost of these concrete permanent piles including excavation, etc., was about \$17.00 each, or \$1.00 per lineal foot.

The total amount of concrete in foundations and walls constructed in five months, was 6,500 cubic yards.

The estimates paid to the contractor for the year, or the monthly averages, amounted to at least double of any of the records for previous periods since the commencement of the work, which shows the amount of progress made.

The erection work of the steel sheds was, at the end of 1907, sixty per cent. completed, and including steel delivered and partially manufactured, the contract is now eighty per cent. advanced, and if expected progress is made, the whole fourteen sheds will be ready for use on the opening of the season of navigation of 1909.

SHED EQUIPMENT.

The new steel freight sheds are advancing rapidly to completion.

This will give fourteen warehouses each capable of handling an inward and outward cargo of 10,000 tons each way per week.

This cannot be done on one floor, as was experienced in 1907.

The second storey is constructed and only requires handling equipment to make it capable of taking care of at least 2,000 tons per week each way, per berth.

The question of modern freight handling devices, whether inclined roadways, elevators capable of taking a team and a five ton load, or cranes or electric transporters, is receiving earnest study with satisfactory progress up to the present.

GRAIN ELEVATORS.

The Commissioners own and operate a modern Grain Elevator. Since the construction of the Grand Trunk Elevator, which has carriers to place the grain directly into the steamships, the Commissioners' Elevator has had very little business.

SESSIONAL PAPER No. 23.

CONVEYOR EQUIPMENT.

The system of carriers now under construction in connection with ten of the new permanent freight sheds, which system is pronounced the most complete in the world, will in the near future be ready for use. On the opening of navigation in 1908, it is expected that grain may be conveyed directly to three steamships at their usual berths, and all equipment to be completed early in 1909. This will enable grain to be delivered to any four at a time of ten different steamships at their berths, without moving.

It is expected that in view of this unexcelled system of delivery, and of the quantities of grain which will come to Montreal, when the new harbours and railway connections to Midland and Victoria Harbour are completed, that the Elevator will have to be at least doubled by the addition of a new wing.

FLOATING CRANE.

Frequent representations have been made to the Commissioners by Shipping Companies and merchants, that several important lines of freight, such as heavy steel, machinery, boilers, etc., have to be refused by vessels coming to Montreal, because they cannot be unloaded or handled in the Harbour.

This is not only a disadvantage to the port, but to industries in the district requiring special heavy packages.

The Harbour Commissioners have had under consideration offers from responsible firms in the United Kingdom and the United States, who have already constructed successful cranes. It is expected that in 1908, the port will be equipped with a steel hull, 360 deg. floating crane, of the type most in Liverpool, capable of lifting 75 tons out of the largest vessel afloat.

DRY DOCK.

A Dry Dock is also one of the urgent requirements of the Port. There is no other harbour in the world having anything like the commerce of Montreal which is not equipped with one or more dry docks.

Nearly every ship meeting with an accident, whether inward or outward, and when capable of being floated, comes to Montreal to unload. Even from the Straits of Belle Isle, as instanced in 1907, vessels come to Montreal to unload, or to transship to other vessels bound to the United Kingdom.

Vessels having to be towed can always be safely brought at least to the foot of St. Mary's current, without trouble.

The project of a dry dock is not a new one. The site must be chosen with great care, in view of the future of the harbour and of the possible ship-building and repair industries.

A plan has been made of a modern Dry Dock, 650 feet long with a temporary head, so as to be capable of extension to make either a double dock, or a single one 1,000 feet long. The question of the suitability of a Floating Dock is also receiving consideration.

MARINE SIGNAL SERVICE.

The Government of Canada, through the Minister of Marine and Fisheries, established a signal service system, between Montreal and Crane Island, during the season of 1907.

There are twelve stations, all connecting directly with the central station in the Harbour Commissioners' office, Montreal.

Information, often of very great importance, and signals may now be communicated for the information of Shipping Companies or the captains of the different vessels on the route.

6-7 EDWARD VII., A. 1908.

Frequently, by prompt action, serious results from accidents may be avoided, or signals given which will prevent mishaps.

The value of this service, which was commenced September 1st, 1907, is such that expressions of satisfaction are received every day during the navigation season, when orders may be given, information as to the whereabouts of vessels obtained, and signals to passing vessels recorded.

WHARF ACCOMMODATION.

The extent of the wharves at the end of 1907 is as follows:—

For 30 ft. draught and over.....	16,354 lin. ft. or	3.097 miles
For 25 ft. to 27½ ft. draught.....	19,444 “	3.682 “
		“
Total Deep Draught.....	35,798 “	6.779 “
For 20 ft. and under.....	3,137 “	0.594 “
		“
Total Wharfage, end of 1907.....	38,935 “	7.373 “

EXTENSION OF HARBOUR BOUNDARIES.

The extension of the Harbour Boundaries is a matter of very great importance. The City of Montreal will, it is expected, in the near future, include the whole Island. The harbour should be enlarged at once, so as to preserve the valuable heritage of complete ownership of the whole water front, which alone makes Montreal Harbour advantageous to a degree, and unique.

NECESSARY ENLARGEMENT.

A plan of Harbour Enlargement to meet the trade conditions and required terminal facilities is now urgently necessary.

The present business cannot be very greatly increased until the necessary facilities are provided, and in view of the business which will come when the railways and ports under construction between Montreal and the Georgian Bay are in operation, the expected traffic will require very extensive harbour enlargements.

The Harbour may be divided into three divisions.

I. South of the Lachine Canal.

This is capable of very great enlargement, but it is difficult of access over the Canal, and has only railway connection with the Grand Trunk system.

II. The Central Harbour.

The three main piers will soon require to be lengthened, to make berths for two modern ships each.

Victoria Pier may be re-built to give five or even seven good berths, if the river vessels can be accommodated elsewhere. It is under consideration to insert between Jacques Cartier Pier and the King Edward Pier a narrow pier for river vessels so as to enable the re-construction of the Victoria Pier to be undertaken. This enlargement would probably necessitate the lengthening of the Mackay Pier (Guard Pier.)

Something must be done down the long stretch known as St. Mary's Current. The wharves require rebuilding in any case, and this length must, in the near future, be widened and built to high level, so as to give communication at all seasons, from one end of the harbour to the other.

SESSIONAL PAPER No. 23.

III. The Lower Division.

This is the part of the Harbour capable of any required extension. From the new Tarte Pier down to Longue Pointe the water front is controlled by the Commissioners, and as required, standard works may be undertaken on lines already approved.

The only objection to this Division is the distance from the City and the railway terminals.

A comprehensive design is now required before new projects are undertaken, and a study is being made in view of the necessary considerable enlargement to the harbour in the very near future.

GENERAL NOTES.

The breaking up of the ice and the opening of navigation is 1907 occurred somewhat later than usual.

Changes began to appear in the ice about March 25th, when a small cut was observed on the east side of Moffatt's Island. The water was then about 12 feet above ordinary summer level. Throughout the winter there had been a long "air hole" of considerable width which extended from Victoria Bridge to Hochelaga.

Little change took place in the ice field until April 16th and 17th, when the ice cracked at Victoria Bridge and moved down somewhat on the west side, but again filled in up to the bridge. On the 18th there still remained ice on the east side of Laprairie Bay, but the main channel was open up to the rapids. From this date the ice cleared rapidly but quietly, and with much less shoving than usual.

The tug "Alphonse Racine" was out in the river beyond Mackay Pier, opening navigation for 1907, on the morning of April 22nd.

The widening of the 30 ft. channel at the entrance to the central division of the Harbour has been a matter of difficulty.

The strong current across the course of the vessels made the position of a spoon dredge, not arranged for breasting out of the way, somewhat dangerous. In fact, a spoon dredge was sunk at that work in 1906.

The Department of the Marine and Fisheries placed at the disposal of the Commissioners an Elevator Ship Channel Dredge, especially adapted to this work, which made excellent progress from July 25th to November 26th, 1907.

Owing to the change in the alignment of the new Harbour Channel, as deepened to 30 feet, and the fact of the shore marks being frequently obscured by smoke, the Department of Marine and Fisheries, at the request of the Commissioners, placed two red Gas Buoys on the north side of the dredged channel, which have since been of great benefit to navigation.

During the season of 1907, a number of distinguished engineers, and others interested in navigation and commerce, visited the harbour and were shown over the various works.

A party of English Engineers and Shipbuilders made a close study of the St. Lawrence with a view to commercial enterprises.

The Canadian Section of the Deep Waterways Commission held a meeting at Montreal, when the Harbour Commissioners were invited to discuss and give their views on questions of importance in connection with the navigation of the St. Lawrence.

The President of the Harbour Commissioners, accompanied by the Chief Engineer, made a short inspection of the harbours, terminals and equipment of the port of Boston and New York. By the courtesy of the authorities, every facility was given for a complete examination of all improvements and harbour facilities in those important harbours.

6-7 EDWARD VII., A. 1908.

The season of 1907 has been remarkably successful from the point of view of work done, and by reason of freedom from accidents to both shipping and the Harbour Commissioners' property.

Two accidents occurred in Lock No. 1, Lachine Canal. The first was on July 2nd, about 8 p. m., when the collision of the steamer "Prescott" with the upper gate resulted in the sinking of the steam barge "Havana" in the harbour near Bickerdike Pier. The "Prescott" herself was kept afloat by the Harbour Commissioners' tugs. The "Havana" was soon after successfully floated, and comparatively little damage resulted from the accident.

The second occurred on Nov. 12th, about 7 p. m., when steamer "Neepewah" carried away the gates of the lock, and the barge "Regina," loaded with about 28,000 bushels of wheat, was swept down and sank almost under the bow of the Allan S.S. "Corsican," which was due to sail, with a large and valuable cargo, in three days.

Authority was obtained from the Department of Marine and Fisheries to remove the barge, which was done by the Harbour dredges in about twenty-four hours, so that the "Corsican" left only three hours late.

The steamer "Imperial" sank the brick barge "Germaine" at her berth on the afternoon of August 23rd. The "Imperial" was very little damaged, and after some of the bricks had been removed from the "Germaine," the hull floated away by itself and was finally recovered.

A very heavy northeast gale accompanied by rain, the most severe in years, occurred on the night of Nov. 7th. Fortunately little damage was done in the harbour, but down the river, many small vessels, barges, etc., were pulled from their moorings and damaged.

The last vessel arriving in the harbour from sea was the S. S. "Dunelm," which came into port on 13th December and entered here. Navigation closed on the 15th December. The average depth in the 30 ft. channel 1907 was as follows:—

May, 36 ft. 2 ins.; June, 34 ft. 10 ins.; July, 33 ft. 3 ins.; August, 32 ft. 2½ ins.; September, 31 ft. 4 ins.; October, 31 ft. 9½ ins.; November, 32 ft. 9 ins.

The following table shows the maximum and average number of workmen employed directly by the Commissioners during the season of 1907:—

Wharf Works:—	Maximum	Average.
Construction.....	450	322
Maintenance cleaning, etc.....	168	138
Harbour Yard, Carpenters, Blacksmiths, etc.....	19	16
Sawmill and Timber Boom, Sawyers and Handymen.	45	31
Machine Shop, machinists, blacksmiths, etc.....	31	28
Shipyard, carpenters, labourers, etc.....	40	37
Dredging fleet, crews of dredges, tugs, etc.....	104	102
Grain elevator, foreman and operators.....	10	9
Conveyor equipment iron workers, carpenters.....	45	19
Shed inspectors and assistants.....	9	8
Totals.....	921	710

The contractors and sub-contractors for the steel sheds also employed a large number of men.

The working day, in general, is ten hours. The drill boat is operated 11½ hours, and the crews on the tugs are on board night and day.

Victoria Day, Dominion Day and Labour Day are kept as holidays, and the workmen are allowed half a day's pay for each.

SESSIONAL PAPER No. 23.

The Commissioners have an insurance against employers' liability for accidents to workmen. During the season of 1907, accidents to the Commissioners' men have been somewhat numerous, but most of them were of a trifling nature.

Thirty-five accidents to the Commissioners' employees were reported during the year, and a horse employed at wharf cleaning was injured and died subsequently. All the cases were amicably settled by the Commissioners and the accident liability company.

Seventeen accidents were reported as occurring to workmen in the employ of the contractors and sub-contractors for the new steel freight sheds, three of which proved fatal.

There were also some accidents in connection with the running of the trains of the Traffic Department, which are not on record in the Engineering Department.

Five casualties to private persons on the Harbour territory were also reported, and all were said to be due to liquor, viz.:—

June, 11th.—Two men were drowned while boating, at Section 59, Longue Pointe.

June 17th.—A man was knocked down by a cart on the wharf at Jacques Cartier Pier, and had his leg fractured.

Sept. 19th.—An expressman was knocked from his vehicle on the wharf near the Beaudry street tunnel, and slightly injured.

Oct. 3rd.—A lady attempted suicide, by jumping from the wharf into the river at Section 15.

Two men and an express fell over the wharf at Jacques Cartier Pier. The horse was lost, but the men were rescued.

Appended hereto are Departmental Reports from the following officers of the staff:—

Report of Mr. W. J. Sproule, Assistant Chief Engineer. Report of Mr. J. M. Nelson, Assistant Engineer. Report of Mr. W. R. Lunan, timber inspector. Report of Mr. F. L. Gagnon, Assistant Engineer. Report of the John S. Metcalf Company, on grain conveyor system. Report of Mr. Jere Nehin, Superintendent Elevator No. 1. Report of Mr. Arthur St. Laurent, on the Stability of Grain Elevator No. 1. Tables of quantities and costs, prepared by Mr. Geo. Smart, Accountant.

I am, sir,

Yours obediently,

F. W. COWIE,

Chief Engineer.

REPORTS OF THE ASSISTANT CHIEF ENGINEER AND ASSISTANT ENGINEERS OF THE HARBOUR COMMISSIONERS OF MONTREAL FOR 1907.

(TO ACCOMPANY CHIEF ENGINEER'S REPORT.)

Montreal, Dec. 31st, 1907.

F. W. COWIE, ESQ., C. E.,
Chief Engineer,
Harbour Commissioners of Montreal.

Dear Sir,—

I have the honour to forward herewith the Reports on the works carried on for the improvement and maintenance of the Harbour of Montreal during the year 1907, which were executed, by direction, under my supervision and charge.

Having exercised immediate as well as general supervision of the works on the water, including the dredging fleet, the new railway embankment, Sections 55 to 61, and the new wharf at the Dominion Coal Co.'s berth, Sections 36 and 37, I give the details of these operations direct.

Mr. J. M. Nelson, Assistant Engineer, has been in immediate charge, both of the new works and those of maintenance and repairs carried on ashore, and I enclose his report of the works carried out under his charge.

Mr. W. R. Lunan, timber inspector, has been in immediate charge of the receipt of timber, lumber, etc., its care in the boom, and its delivery for the various works, and also of the operation of the saw mill, and his report is also enclosed.

Mr. George Yale, mechanical superintendent, has furnished particulars of the work done at the Shops and Shipyard, Mackay Pier.

OPERATIONS IN 1907.

Chargeable to Capital.

NEW WORK.

Construction of the Railway Embankment along the Harbour front from Molson's Creek, section 55, to Racine Pier, Section 61.

The principal details are as follows:—

The first new work begun by the Harbour fleet was the building of the embankment for the proposed railway, Sections 55 to 61, the water early in spring being sufficiently high to float the vessels of the fleet in that vicinity.

On May 9th one dredge was placed at the upper edge of the very shallow water, Sections 56 to 59, opposite the proposed railway embankment, and on May 13th another dredge was placed at the lower edge of the same shoal to cut a channel through it of sufficient depth to float the vessels of the fleet at low water. The materials dredged, which were chiefly hard pan and gravel, were deposited along the shore on the site of the proposed railway, by derricks, derrick No. 1 having been placed at this work on May 10th, and derrick No. 6 on May 13th.

The work was continued by two dredges and two to three derricks until June 4th, when Dredge No. 2 was moved to Section 36 to prepare crib seats. On June 25th the railway embankment had been built to full height and of sufficient width to carry one railway track, except a gap where a sewer from the Locomotive and

SESSIONAL PAPER No. 23.

Machine Company's property enters the river, and a large gap at Molson's Creek, Section 55, where a space was left for the culvert which is to be built there.

The channel along the shore from the deep water at Section 47 to the deep water at Section 59, however, was not clear for tugs to navigate it at low water, and Dredge No. 4 was continued in this channel until July 2nd, when the channel had been made so as to assure access to the site of the proposed culvert and a passage through to the Racine Pier at low water.

The officers of the Lachine Canal having applied for a place to dump their dredgings, taken from the canal near Wellington Basin, their derrick was placed alongside the railway embankment on June 15th, where it deposited material to widen the embankment, free of cost to the Commissioners.

Although the embankment had been made of sufficient dimensions for one railway track, derricks continued to dump here, as the water was still sufficiently high, and a dumping ground was still required, the material dumped going to form future wharf extension and being chargeable to the section on which it was placed. The last derrick was withdrawn from this dump on August 9th.

Grading the top of the part of the railway embankment already made was begun on July 2nd, and was continued with a small gang of men until August 1st, when it was completed.

Nothing further was done on this work during the year.

Quantity dredged, Basins 56 to 59, 79,460 cu. yds.

The quantity put into the railway embankment proper was 72,470 cu. yds., scow tally.

The additional quantity dumped alongside the railway embankment was 18,975 cu. yds., also scow tally, exclusive of that put in by the canal derrick.

The canal derrick dumped 5,010 cu. yds, scow tally, free of cost to the Commissioners.

CONSTRUCTION OF PERMANENT NEW WHARF.

DOMINION COAL COMPANY'S BERTH. SECTIONS 36-37.

NEW WHARF SECTIONS 36-37.

The principal details are as follows:—

This wharf, put under construction in 1907, is to be 1,250 feet in length; of crib-work construction below extreme low water level and of concrete face wall above, and is to be built to level 106.50 or 13.87 feet above extreme low water line, and suitable for being raised to high level, if required in the future.

On May 15th carpenters began to build cribs at Mackay Pier for the new wharf at Sections 36-37. The cribs were built to about 8 feet in height, preparatory to being taken down to the site of the new wharf. This work was continued until June 24th, when it was suspended. Nine cribs of the following lengths, aggregating 653 lineal feet had been built, viz.:—

- 1 crib 54 feet in length on the face and 8 courses high.
- 6 cribs 71 feet in length on the face and 8 courses high.
- 1 crib 72 feet in length on the face and 8 courses high.
- 1 crib 101 feet in length on the face and 8 courses high.

There were also on hand at that date the following cribs, built in former years viz.:—

- 2 cribs 101 feet in length on the face and 10 courses high.
- 1 crib 151 feet in length on the face and 11 courses high.

Also three special cribs used to break the current when repairs were being made to the new cribwork, Section 24, which had been damaged by ice shoves before the concrete superstructure was put on. The cribs are of square timber on all sides, 15 feet in height, and one is 60 feet, one 40 feet and the third 100 feet in length, by 20 feet in width.

On August 14th the construction of a special crib, nearly triangular in shape and 60 feet long on the face was begun at Mackay Pier. This crib was to fill the space between the upstream end of the new wharf, Section 36, and the old existing wharf, and was completed about August 31st.

The construction of the special crib about 55 feet in length, and 30 feet wide on the bottom, for closing the space between the downstream end of the new cribwork and the old shore wharf was begun at Mackay Pier on October 11th, and was taken down to its site about October 15th, sunk in position October 24th, and completed about November 2nd.

On June 4th Dredge No. 2 began to make foundations for the cribs of the new wharf at Sections 36-37, the high water not allowing this work to begin earlier. Also on June 4th a derrick began to deposit the material dredged to make a temporary bank above the site of the new wharf to break the current.

On July 10th two of the cribs that had been built at the Mackay Pier, one about 54 feet in length on the face and the other 71 feet in length, and both 8 feet in height, were taken down to the site of the new wharf. They were there joined and built to 35 feet in height, and this crib 124 feet 8 inches in length at the line of extreme low water was sunk in position on August 9th.

Two cribs of about 101 feet in length each and 8 feet in height were taken down from Mackay Pier, joined together and built to 35 feet in height, making a crib of 202 feet 7 inches in length at the line of low water, and this crib was sunk in position on August 23rd.

Two other cribs, one of about 101 ft. in length and another about 151 ft. in length and both built to 10 ft. in height were joined together making a crib 252 feet 5 inches in length at the line of low water, built to 35 feet in height, and this crib was sunk in position on September 18th.

The part 151 feet in length had been built 3 years previously and had remained afloat at the boom in the interval. When the finished crib of which it formed a part was completed and in place ready to be sunk the swell from a passing steamer caused it to part from the rest of the crib, and as it contained the ballast that had been put in to trim the crib it settled on the bottom but in correct position with reference to the remainder of the crib. The floating part was then sunk and heavily weighted and it settled on the separated part in proper alignment. Piles were driven just inside the crib, 15 along the front and 8 along the back. The opening along the front of the crib which, when the crib was sunk varied from 8 inches to 9 inches in width was closed by planks 2 inches thick and 3 feet in length, spiked vertically on the inside of the face timbers by a diver. The whole crib was then filled, the front part with rock, largely trap, and the greater part of the remainder with trap and shale. After the crib had been filled and about 9 feet in depth by $12\frac{1}{2}$ feet in width of concrete had been put on it, the opening was found by diver, to be reduced from nothing at the narrowest to 4 inches at the widest part, and averaged about 2 inches for the greater part of the distance along which it extended.

The filling of each crib was begun as soon as it was sunk in position. The filling was blasted trap and hard shale in the two front rows of pockets and partly in the back pockets. As soon as each crib or part of a crib was filled the front $12\frac{1}{2}$ feet of the filling was levelled and packed into the cribwork by divers, and moulds for the concrete were put on. This work was sufficiently advanced for the depositing of concrete to begin on September 21st. The building of the concrete work was much impeded and its cost increased by the great difficulty of getting engine

SESSIONAL PAPER No. 23.

runners for the derricks of the concrete machine and the impossibility of procuring cement rapidly enough to keep the machine in continuous operation. The concrete work of this wharf was completed for the season on November 8th.

The wharf as being built is in the general direction of the old shore wharf, Sec. 36-37, and at a mean distance of about 100 feet therefrom, and the coping is almost parallel to and at a distance of 250 feet from the Harbour boundary line.

It consists of cribs 42 feet wide on the bottom, 30 feet wide at low water line and 35 feet high, sunk to a depth of 35 feet at extreme low water of 13 feet on the sill. The concrete front is $12\frac{1}{2}$ feet wide at its foundation on the cribs and its height finished is 13.87 feet, the coping being at elevation 106.50 Harbour Datum.

The length of the part under construction in 1907 is 574.8 feet on the face. The upstream end is built at an angle of about 122 degrees from the line of the old shore wharf, and is 109.9 ft. long of which a part 40.1 feet in length towards the face is of concrete superstructure, and the remaining 69.8 feet towards the old shore wharf is of cribwork built to coping level. The space at the downstream end between the new wharf and the old wharf face is closed by a temporary closing crib 30 feet wide on the bottom, 20 feet wide at the top, about 60 feet in length and built up to level 100.00 to retain the filling. The upstream end is raised to coping level of 106.50. The adjoining face 27.3 feet in length is raised to the same level. The next 30.4 feet of face is raised to level 103.00 and the remainder of the face, 517.1 feet in length, is built up to level 100.00.

The part built to coping level is complete with anchor rods $2\frac{3}{4}$ inches in diameter and 64 feet 8 inches in length from the face wall to concrete anchorage blocks in rear and with countersunk posts on the coping for mooring vessels.

The back filling is up to full height for a distance of 57 feet from the upstream end, and the concrete face wall is backed by filling raised to about one foot above the wall itself and to about 62 feet in width behind the wall.

Derricks continued to put in filling until stopped by the closing of the season, in December.

Quantity dredged on crib seats, 34,685 cu. yds.

Quantity of rock and other filling put in in 1907, 109,332 cu. yds. scow tally, by floating derricks, and 18,485 cu. yds. scow tally, from dump scows.

DREDGING—1907.

DREDGING THE BASINS AND THE THIRTY-FOOT CHANNEL THROUGH THE HARBOUR.

The dredging of the year was done in the following places, viz.:—

Near the south side of Alexandra Pier, Section 14 B; alongside the outer end of the same pier, Section 14 C; on Sections 12 S and 13 S; alongside the shore wharf, Section 17; along the inshore side of Victoria Pier, Section 20 E; on crib seats, Sections 35 to 38; in the basins, Sections 36 to 39; in basins near shore, Sections 53 to 59, and in the 30-foot ship channel, Sections 21 to 23 and 34 to 37.

The principal details are as follows:—

DREDGING BASINS.

Certain small areas, close to the wharves in basins, Sects. 14 B, 14 C, and 17 remained at the close of last year not quite completed to a clear depth of 29 feet at extreme low water of 13 feet on the sill.

Before the arrival of ships this spring a dredge was placed to clear these to full depth. The dredging at Sections 14 B and 14 C was rock and was done to full depth.

Quantity dredged: 1,050 cu. yds.

But the water was so high that the work at Section 17 was difficult. After ships began to arrive the berths were so constantly occupied that the dredges had

little opportunity to work until autumn, and as the water has not fallen to a low stage in 1907 there has been no trouble from want of depth at any of the new wharves.

From Oct. 15th till 18th a dredge cleared out deposits to 25 feet 3 inches depth at extreme low water along the inshore side of Victoria Pier, and in November considerable cleaning up to 29 feet depth at extreme low water, was done in basin, Sections 15 and 17, close to the shore wharf.

Material, silt and deposits from the wharf—Quantity dredged; 2,700 cub. yds., Section 15; 4,500 cub. yds., Section 17; 1,200 cub. yds., Section 20.

One dredge worked the greater part of the time from July 5th till Nov. 28th dredging blasted rock in the basin, Sections 12 S and 13 S, to widen the deep water area in the basin and to procure rock filling for the cribs of the new wharf, Sections 36-37.

Material dredged, blasted rock.

Quantity, 37,201 cu. yds.

Dredging basins and crib seats, Sections 36 to 39.

Material dredged, gravel, sand and stone.

Quantity, 51,175 cu. yds., in basins.

Quantity, 34,685 cu. yds., in crib seats.

Quantity, 1,350 cu. yds., Dominion Coal berth.

Dredging basins, Sections 56 to 59.

Material dredged, hard pan, gravel and stone.

Quantity, 79,460 cu. yds.

DREDGING SHIP CHANNEL THROUGH THE HARBOUR.

Elevator Dredge No. 1 of the Department of Marine and Fisheries was loaned to the Commissioners and arrived in the Harbour on July 20th. There was difficulty in getting secure anchorage, and after getting an additional anchor and a new bow anchor cable the dredge was placed and got to work on July 25th on the east side of the 30-foot ship channel opposite Section 21, and continued opposite Sections 21 to 23 until Sept. 10th, when the shoal on the east half of the channel at that place had been cleared off.

This dredge was then removed to the east side of the channel opposite Section 34, and continued widening the 30-foot ship channel on that side, Sections 34 to 37, until Nov. 26th, when it stopped working and left for winter quarters at Sorel on the 27th.

This dredge was of important assistance by completing the 30-foot channel to 450 feet width at Sections 21 to 23 and by adding an average of 242 feet to its width for a length of 1,400 feet at Sections 34 to 37. The areas dredged at Sections 21 to 23 and at Sections 34 to 37 have been tested and found clear to 30 ft. depth at extreme low water of 13 ft. on the sill. The quantity dredged was 50,400 cu. yds., scow tally, all of which was dumped close to shore, Sections 63 to 64, except 5,700 cu. yds., which were dumped behind the cribs into the new wharf, Section 37.

Material dredged, boulders, stones, sand, hardpan, etc.

Dredge No. 2 began to widen the ship channel on the west side on June 29th at Section 36 and continued at this work on Section 36 to 41 with the exception of a few days spent on crib seats, until Nov. 13th. The additional width added to the 30-foot channel on these sections was an average of about 143 ft. over a length of about 2,900 feet, and at the close of the season the channel had been made of approximately the following widths and of 30 ft. in depth, viz.:—

From Lachine Canal to Victoria Pier, 350 ft. at the narrowest part, to 600 ft. in width.

From Victoria Pier to Ste. Anne Cotton Mill, Section 34, 450 ft. in width.

From Ste. Anne Cotton Mill, Section 34, to the Tarte Pier, Section 44, 800 ft. to 1,400 ft. in width.

SESSIONAL PAPER No. 23.

Across Longueuil Bar, 500 ft. to 700 ft. in width.

Longueuil Bar to Longue Pointe Church, 500 to 800 ft. in width.

Materials dredged, stone, gravel, sand, hardpan, etc.

Quantity, 44,000 cu. yds.

DRILLING AND BLASTING.

NEW WORKS.

The Drill Boat worked the whole season on Sections 12 S and 13 S drilling and blasting rock for the double purpose of extending the deep water area of the basin and to obtain rock for wharf construction, etc. The boat began to work on May 27th and stopped to "lay up" on Dec. 5th.

The material blasted was hard shale and trap dykes.

The area blasted is 103,448 sq. ft. or 2.37 acres, and the quantity 14,368 cu. yds., measured in the solid.

The particulars of the drilling and blasting are as follows:—

DRILL BOAT'S WORK IN SECTIONS 12 S AND 13 S, DURING THE SUMMER OF 1907.

Number of days worked, May 27th until December 3rd, inclusive, 162 days.

Working time, per day, 11½ hours.

Number of holes blasted, 3,679.

Average depth of each hole in solid rock, 5.50 feet.

Average actual depth water surface to the bottom of holes when drilling was done, 36.41 feet,

Quantity of rock drilled and efficiently blasted, measured in the solid to 6 in. below grade line of bottom, 14,368 cu. yds.

Total cost, \$17,052.98 or \$1.18 7-10 per cu. yd., measured in solid.

FILLING THE FOUNDATIONS OF THE STEEL FREIGHT SHEDS.

NEW WORKS.

The filling was put into the foundations by floating derricks, and a large part of the filling material was obtained from Bickerdike Pier, where surplus filling existed, having been put there in former years, and the pier since having been filled in by ashes, excavated materials from cellars, etc., in the city, delivered free of cost to the Commissioners. The surplus material was loaded on scows, also by floating derricks. The filling required over that available on the Bickerdike Pier was supplied by dredgings from the channel and basins at Hochelaga, Sections 36 to 37.

The quantities put into the foundations were:

21,075 cu. yds. from Bickerdike Pier.

21,600 cu. yds. from dredges.

42,675 cubic yards in all.

DREDGING FLEET ON NEW WORKS.

SUPERINTENDENCE AND REPAIRS.

CHARGEABLE TO CAPITAL.

The Dredging Fleet in 1907 was all owned by the Commissioners except Elevator Dredge No. 1, with its tug, the "Portneuf", and scows, which were loaned to the Commissioners by the Department of Marine and Fisheries.

The Commissioners' Dredging Fleet consisted of:

- Two bucket or dipper dredges.
- Five floating steam derricks.
- One floating hand derrick.
- One Drill Boat.
- One Testing Boat.
- One floating concrete making machine.
- One floating Pile Driver.
- Five screw propeller tugs.
- Four small lifting scows.
- One passenger transport scow.
- One coal scow, 150 cu. yds. capacity.
- Eighteen flat scows, 150 cu. yds. capacity.
- Three hopper bottomed scows, 200 cu. yds. capacity.
- Two floats, 100 ft. x 10 ft.
- One float 30 ft. x 10 ft.
- One float 20 ft. x 10 ft.
- Several smaller floats.
- Spare dredge buckets, clam shells, etc.
- One Orange Peel Dredge bucket.

All the dredging fleet was wintered afloat in 1906-1907 opposite the Mackay Pier near the workshops, except Derrick No. 1 and Derrick No. 3, which had been hauled out in the fall of 1906 for extensive repairs during the winter.

The dredges were served throughout the summer by the tugs "Alphonse Racine," "Robert Mackay" and "Aberdeen," assisted occasionally, when towing the heavy vessels, by the "Portneuf," of the Department of Marine and Fisheries, which was serving Elevator Dredge No. 1 of the same Department, when it was working in the Harbour.

The tug "Courier" was engaged throughout the summer principally in towing timber, piles, etc., from the boom to the places where the timber was being used, and in such other light work as the tug is fitted for.

The tug "St. Peter" having had for some years on board a pump capable of throwing four fire streams of considerable efficiency, was, at the opening of navigation, fully fitted with hose, nozzles, etc., and kept on duty throughout the season of navigation, night and day, as a fire tug.

SHOPS AND SHIPYARD—ON NEW WORKS.

SUPERINTENDENCE AND MAINTENANCE.

CHARGEABLE TO CAPITAL.

The work of keeping the Dredging Fleet engaged on New Works, in repair, has been done at the Commissioners' shops and shipyard at the Mackay Pier.

In addition to the work at the Machine Shop for the vessels of the fleet, as enumerated under "Dredging Fleet," 60 complete anchor rods, 64 ft. 8 inches in length, for concrete wharves; 115 complete rods 25 ft. in length for the foundations of the steel freight sheds, and a number of special bolts for the grain conveyors have been made, and the hoisting engines of the land derrick, land pile driver, and the engine, boiler, pumps, etc., of the saw mill have been fitted up.

In addition to the work done at the Ship Yard, and already enumerated, the following items were done:—

Four new bow fenders for dredges and two floats for wharf building were made; 79 boxes for rock dredgings were repaired and 19 new ones were made; several new spuds were dressed and fitted with their castings; five flat scows were hauled up on

SESSIONAL PAPER No. 23.

the ways and extensive repairs made; three dump scows and the testing boat were also hauled up and repaired; four new boats were made and delivered to the various vessels, and all the flat scows underwent more or less repair.

MAINTENANCE AND REPAIRS.**CHARGEABLE TO REVENUE.****Testing the Depth of the Channel.****Maintenance.**

As soon as the ice cleared in the spring, the testing boat was put to work and continued as constantly as the weather permitted until the channels in the Harbour above Longueuil Bar were thoroughly examined.

The wreck of Dredge No. 1, which was about 170 ft. from the shore wharf at Section 25, the previous year when winter set in, was found about 260 ft. from the shore wharf at Section 41, having been carried down stream about one and a half miles by the ice and current.

Over the wreck, on which there was found to be only 17 ft. depth at low water, a scow, properly lighted at night, was promptly placed and maintained throughout the season of navigation. Testing was also done later in the season where dredges had been at work.

BUOYS AND BEACONS.

Three black buoys to mark out the east side of the channel between the lower end of the Windmill Point Basin and Mackay Pier, were placed and maintained during the season.

A red buoy was placed and maintained about half way from Sutherland Pier to the ship channel to mark the upper end of the shoal between the ship channel and the west shore.

Three red buoys and six black buoys were placed and maintained in the inshore ship channel leading from Longue Pointe (opposite the Church) to the Racine Pier, Sec. 61.

Rectangular beacons were placed to mark out both the 27½ ft. channel (25 ft. 3 ins. at extreme low water) and the new channel, 30 ft. in depth at extreme low water, in the upper reaches of the harbour.

REPAIRS TO WHARVES, BUILDINGS, ETC.

In the week ended July 13th, a quantity of dredged rock was placed by a derrick at the upstream ends of the Racine, Doran and Lemay Piers to make good material removed by the ice and to prevent further scour, and on October 30th, and 31st, four scows of rock were deposited at the Signal Station, Longue Pointe, to protect it against scour or ice shoves.

The Montreal Street Railway having failed to make the cut across the wharf for their intake, satisfactory for the crossing over it of the Dominion Coal Co.'s towers, necessitated by the building of the new wharf, the work was taken in hand on August 16th by the Commissioners' staff. Piles were driven and heavy timber placed by the Commissioners' men, and the place made secure, the work to be charged to the Street Railway Co. The towers worked over the cut safely the remainder of the season. The shop wharf, which had been damaged by the ice, was re-planked and several new piles were driven.

6-7 EDWARD VII., A. 1908.

The shop and ship yard buildings were painted (2 coats).

A new cradle for the ship yard ways was built of oak and fitted with castings, etc.

W. J. SPROULE,

Asst. Chief Engineer.

HARBOUR COMMISSIONERS OF MONTREAL.

December 31st, 1907.

W. J. SPROULE, Esq.,

Assistant Chief Engineer.

Dear Sir,—

I beg to report as follows on the various works in Montreal Harbour, Shore and Wharf Branch, carried out, by direction, under my charge, during the season of 1907.

The most important sub-divisions of the Shore and Wharf operations for 1907 were as follows:—

NEW WORKS—CAPITAL ACCOUNT.

The construction of new railway tracks on the wharves.

The Permanent Paving.

The raising of Jacques Cartier Pier.

The establishment of Life-Saving Equipment.

Fire Protection.

MAINTENANCE AND REPAIRS—REVENUE.

The removal of ice from the wharves.

Spring cleaning of the wharves.

Summer cleaning and watering of roadways and wharves.

Roadway maintenance.

Macadamizing stone.

Windmill Point raceways.

General repairs to wharves and water front.

Denonville ramp.

Harbour buildings, repairs, etc.

Electric lighting of the Harbour.

General notes.

1. THE CONSTRUCTION OF NEW RAILWAY TRACKS ON THE WHARVES.

Laying new tracks upon the piers and shore wharves, began on the 19th April, and continued at various times, during the summer until November 7th.

All new rails laid were 80 lb. Am. Soc. C. E. section. The ties for straight track were mainly of hemlock, 4 ins. thick, 8 ins. face and 8 ft. long. Those used for switches and slip diamonds were of hardwood, 7 ins. thick, 8 ins. face, and varying in length from 8 ft. to 16 ft. All the new track laid upon the high level piers and wharves between the Canal Entrance and Victoria Pier, Sec. 20, was well packed under the ties with stone ballast, and concreted between the ties and under the rail, before being paved with scoria blocks.

The tracks laid in former years on the high level piers and wharves, were lifted to grade, excavated between the ties and concreted also before being paved with scoria blocks.

SESSIONAL PAPER No. 23.

All tracks alongside the new Steel Freight Sheds were laid at such an elevation and at such a distance one from the other as to permit of the doors of refrigerator cars being freely opened for the discharge of goods.

The new track laid in 1907 was as follows:—

Alongside Shed No. 2, Sec. 12-13—Two tracks of an aggregate length of 1,298 feet.

375 feet of Main Line Track, in Sec. 12, laid in former years with 72 lb. rail, was relaid with 80 lb. rail.

On the Alexandra Pier.—Two tracks alongside Sheds 3 and 5, and two alongside Sheds 4 and 6, of an aggregate length of 4,375 feet, including connections with the main lines.

Two tracks of 72 lb. rail laid in former years down the centre of the pier were removed.

810 feet of track of 72 lb. was relaid with 80 lb. rails.

On the King Edward Pier.—Two tracks of an aggregate length of 1,525 feet, were laid, one on the upstream and one on the downstream side, parallel to existing tracks alongside sheds 7 and 9 and 8 and 10.

Cross-overs, between the two tracks, on either side of the pier, were laid at about the middle of the pier, measuring together 230 ft.

On the Jacques Cartier Pier.—Curved connections for two tracks on the stream and two on the downstream side were laid, and two tracks alongside shed 13. In all, 1,745 feet.

Windmill Point Wharf.—Sec. 8-10. A siding was laid for the use of the Grand Trunk Railway Co. connected with the existing track in Sec. 8 and extending down to the end of the wharf in Sec. 10.

The siding is 1,250 ft. in length. Work on it began on the 4th September, and it was completed on the 9th Sept.

Local Delivery Siding, Section 27-30.—A siding 1,680 ft. long, for local freight was laid between the 16th of May and the 3rd of June.

Cross-overs.—A cross-over 300 ft. in length, between tracks 2 and 3, was laid, in Sec. 22, and one 200 ft. in length, just below the Longueuil ferry ramp.

At Sec. 42-43.—A curve 225 ft. long was laid to connect the existing track along the edge of the wharf in Sec. 42, with the southern track on the "Laurier" pier.

The total length of new railway tracks laid in 1907, was 12,828 ft. or 2.43 miles. Track laid in previous years with 72 lb. and relaid with 80 lb. rails was 2,119 ft., or 0.40 mile.

The 72 lb. rail, replaced with 80 lb., has been reserved for re-laying rail upon the low level wharves, as the existing 56 lb. rail becomes worn out.

An office for the use of the Traffic Department was built in Sec. 15. The building is 30 ft. by 9 ft., divided into two rooms, electrically lighted, one for the switchmen and shunters, equipped with lockers for oil, lamps and coats, and the other for the yardmaster, neatly furnished and with telephone.

THE PERMANENT PAVING.

Paving between the rails of the tracks on the level wharves, and the surface of the piers between the sheds, with scoria blocks, and part of the roadways of the shore wharves with granite, was begun on the 1st of June, and carried on until the 14th of November.

The concrete foundation upon which the blocks are laid is 6 ins. thick, of 1 part cement, 3 parts sand and 6 parts broken stone. The bed between the blocks and the foundation is from 1½ to 2 ins. thick, of 1 part cement and 2 parts sand, dampened. The joints between the blocks are completely filled with thin grout, of 1 part cement to 1 part sand. The total area of paving laid was 28,234 sq. yds. The King Edward Pier was completely paved and the Alexandra and Jacques Cartier partially.

The shore wharf opposite Shed No. 2 was also paved. In addition to the paving done, 9,800 sq. yds. on the Alexandra Pier and 3,100 sq. yds. on the Jacques Cartier Pier, have been concreted, ready for paving in 1908.

Circular concrete wheel guards were placed around the bases of the hydrants and electric light poles on the King Edward Pier. 11 cast iron gullies, on the King Edward Pier, 8 on the Alexandra Pier, and 4 alongside Shed No. 2 in Sec. 12-13 were put in and connected with the drains, to carry off the surface water.

The organization for the laying of the New Railway Tracks and the Permanent Paving was as follows:—

TRACK WORK.

1 general foreman.

3 sub-foremen.

Track layers.

Tampers.

Labourers.

PAVING.

1 general foreman.

2 sub-foremen.

Concrete men.

Pavers.

Grouters.

Labourers.

Much difficulty was experienced in the spring in securing the necessary quality of labour.

The employment of a considerable number of Italians had to be resorted to owing to the impossibility of obtaining Canadian labourers.

The work was heavy and hard, and owing to the steady, hard work insisted upon, the cost of the work compares favorably with contract work.

THE RAISING OF JACQUES CARTIER PIER.

Raising Jacques Cartier Pier to the same level as the other high level wharves and piers, was begun on the 24th of June and carried on as occasion offered, until completed on the 14th of October.

New countersunk moorings were put in, tie rods bolted up, and the timber work of the top made strong enough to carry railway tracks.

THE ESTABLISHMENT OF LIFE SAVING EQUIPMENT.

An effort was made to minimize, as far as possible, the loss of life by drowning.

On the 1st of May, all life buoys in stock, with 60 ft. of rope attached, and a boat-hook or gaff-pole for each buoy, were placed at various points along the high and low level wharves.

100 new buoys were purchased, and many added to those already placed.

New poles 30 ft. long for the high level, and 18 ft. long for the low level, were made at the Harbour Yard and placed at suitable points.

The ladders on the face of the wooden wharves and piers were repaired and new ones added, practically doubling them in number. "Danger" signs were placed at corners and angles of the wharves throughout. Guard fences of steel on the high level and of wood on the low level wharves, were placed at all angles formed by the junction of piers and shore wharves, and at other points. Fifteen countersunk moorings on the shore wharf at the Harbour Commissioners' elevator, were converted into posts or "bollards," by raising the posts and filling the basins or bowls with concrete. A systematic weekly inspection of the life saving equipment was maintained throughout the summer.

SESSIONAL PAPER No. 23.

FIRE PROTECTION.

The wiring of the fire alarm system and the boxes was overhauled early in the year and put into good order. A hose reel house equipped with reel, 500 ft. of hose, nozzle, hydrant key, etc., was placed at the outer end of the Alexandra, King Edward and Jacques Cartier Piers, the hose being attached to a hydrant within each house.

A pressure test of the hydrants on the wharves was made on the 28th and 29th of June, by Captain Naud, of the City Fire Department, and a pressure of from 70 to 75 lbs. was indicated on the gauge.

A plan showing the position of the hydrants was sent to, and hung up, in City Fire Stations 1, 2 and 20, which are the nearest to the Harbour.

An iron fire escape, was erected on the western end of the Harbour Commissioners' office.

A systematic weekly inspection of the hydrants on the wharves was maintained during the summer, and will be kept up all winter.

NEW PLANT.

The following new plant, in connection with the wharf work, was acquired in 1907.

- 1 Two horse "Austin" road sweeper.
- 2 Two horse road scrapers.
- 1 Double, steel tank sprinkler, "Austin" pattern, 800 gals
- 1 Land pile driver.
- 1 Pile hammer.
- 2 "Lidgerwood" hoisting engines and swingers.
- 1 Five ton land derrick.
- Track drilling machine, drills, tamping bars, rail bender and other track tools.
- 1 Steel tank for new water cart.
- 1 Pump and attachments for pumping out hydrants.
- 100 Circular life buoys.
- Round and square shovels, picks, crowbars, etc., etc.

MAINTENANCE AND REPAIRS—REVENUE.

THE REMOVAL OF ICE FROM THE WHARVES.

A comparatively small quantity of ice was left upon the wharves in the spring. The clearing of the ice from the sites of the steamship sheds, ferry steamer berths, and other places first required for use, was commenced on the 22nd April, and was completed on the 2nd May.

Floating derrick No. 1 was employed at clearing ice from April 25th to 2nd of May.

The largest number of men employed at ice removal at any one time was 66.

SPRING CLEANING OF THE WHARVES.

Cleaning the wharves of the winter accumulation of mud and refuse, began on 16th April. By the 4th of May the shore wharves from the Canal Entrance to Victoria Pier were thoroughly cleaned.

The spaces between the sheds and the edges of the Alexandra, King Edward and Jacques Cartier piers were cleaned of all rubbish, which was thrown on scows placed alongside the piers.

Cleaning up of the surface of the piers between the sheds was then proceeded with, and was finished by 15th of May.

6-7 EDWARD VII., A. 1908.

SUMMER CLEANING AND WATERING OF ROADWAYS AND WHARVES.

The cleaning of the roadways of the wharves throughout the Harbour was kept up all summer.

The Harbour was divided into sections, with a foreman, labourers, and carters to each.

A systematic cleaning and sweeping of the paved roadways of the shore wharves and piers, from the Canal entrance to, and including the Victoria Pier, was carried out.

A night sweeping and cleaning gang was organized, consisting of 1 foreman, 2 labourers with brooms, 1 water cart, 4 carts, and 1 two-horse "Austin" sweeper.

The gang worked every night, cleaned and swept the paved roadways and removed all the collected material, leaving the roads clean for the morning. During the day, men with brooms and barrows collected manure, straw, paper and other light rubbish.

Eight single water carts and one double sprinkler were in use practically every week day during the summer, laying the dust and wetting material to be scraped up by the different cleaning and scraping gangs.

ROADWAY MAINTENANCE.

Roadway repairs.

The macadamized roadways of the wharves throughout the Harbour were maintained in good order.

MACADAMIZING STONE.

The stone for macadamizing the roadways of the wharves in 1907, was delivered during the previous winter by the contractor, unbroken, and broken by the Commissioners' own men.

The quantities used during the summer for maintenance were:—

	Tons.
Sections 5 to 10.....	465
" 12 to 19.....	1,760
" 20 to 27.....	814
" 28 to 34.....	383
" 35 to 38.....	142
" 39 to 46.....	261
Total tons of 2,000 lbs.....	3,825

WINDMILL POINT RACEWAYS.

SECTION 4, WINDMILL POINT.

The screen which breaks the current at the outlet of the raceway from the Ogilvie Flour Mills, in the upper end of the Windmill Point Basin, was twice damaged during the summer. A new and substantial screen was put in on Sunday, 8th September, which has since remained in good condition.

REPAIR TO RACEWAY NO. 6, PECK ROLLING MILL.

The rebuilding of the raceway, which failed in September, 1906, and partly rebuilt in that year, was continued in 1907.

Work began on 2nd January driving sheet piles and putting in braces to prevent the sides of the excavation which were frozen, from falling into the raceway when they thawed out in the spring.

SESSIONAL PAPER No. 23.

The old cover of the raceway was removed to within 7 ft. of the Harbour boundary by the 19th January providing a full flow for the waste water from the mills.

On the 1st of February everything having been made secure for the winter, the work was stopped.

The rebuilding of the raceway was resumed on 2nd September and was carried on daily.

Derricks with hoisting engines were set up, on each side of the excavation, the remaining portion of the old cover removed to the Harbour boundary line and the work of clearing the raceway of the earth and stones which had collected during the winter and summer was done by two divers on Sundays, when the mills were closed down and the water in the raceway at rest.

The original sills and plank flooring were found in good condition, and work was at once begun, framing bents and building a crib to form supports for the new roof or covering, which was later put on.

The crib which occupies a central position is 6 ft. wide at one end, 4 ft. at the other, 9 ft. in height and 42 ft. long. It was constructed of 12 in. x 12 in. timber, with cross ties at 8 ft. centres.

The bents occupy positions midway between the sides of the raceway and the central crib, and are made with a sill and a cap of 12 in. sq. timber, with posts between, also of 12 in. timber, set at 18 in. centres.

The bents are 9 ft. in height, the same as the central crib.

On Sunday, 20th October, the central crib was sunk in position and filled with stone.

The bents were lifted into position by the derricks, and bolted to the bottom and to the original sills alongside of which they were placed.

The roof consists of a double thickness of 12 in. x 12 in. timbers, set together with close joints, and spiked to the bents and central crib.

On November 8th the cover was all on, the bracing put up in January was removed, and filling in the excavation was begun.

Examination by diver of the portion of the raceway built in 1906, showed it to be in good condition.

The work of filling is still in progress.

Section 11, between the entrances of the Lachine Canal.—35 feet of new coping was put on, and the top planking renewed for a length of 25 feet between June 20th and 22nd.

King Edward Pier.—The south east corner of the pier was re-inforced with 4-inch hardwood planks set vertically.

Sect on 19, Shore Wharf.—During the night of the 17th of April the top of the wharf in Section 19, for a length of 75 feet, was broken and lifted by the ice.

The damage extended downwards for about 8 courses. The broken timbers were taken out and renewed, new sleepers, top planking and coping put on, and moorings re-set.

The work began on the 22nd of April and was completed on the 30th.

Section 20, Victoria Pier.—The outer corner of the slip at the berth of the Str. "Terrebonne," broken by the Str. "Montreal" early in June, was repaired.

Repairs were made in May to the coping and top planking of the Pier, aggregating 125 lin. ft. of coping and 200 lin. ft. of top planking.

Section 23.—The top of the wharf for a length of 400 feet was lifted about 1 foot by the ice. The planking was disturbed, coping and some rotten sleepers under the planking were broken.

400 feet of new coping were put on.

50 piles were driven along the front, cut off 2 feet below the top and 2 waling sticks of 12 in. by 12 in. timber bolted to the heads of the piles, and the piles and walings well bolted to the face of the wharf.

Section 24.—An aggregate of 75 feet of coping and 50 feet of the top planking was renewed.

Section 25.—In the spring, after the ice was gone, the cribwork of the wharf, for a length of 90 feet, was found to have been carried away. It is proposed to build a new wharf, on the same lines as the new concrete wharf in Section 24. At this place, therefore, no work was done on repairs, but in order to prevent further damage by ice, 48 piles were driven around the lower corner, and all overhanging timbers cut away. Rock was piled along the back of the break to prevent the washing down of the earth. Work began on the 1st November and finished on the 7th.

Section 26.—Two slips in the face of the wharf, which had been covered over, were opened up for use of the Quebec S.S. Co.'s S.S. "Campana."

Section 33, Longueuil Ferry Berth and vicinity.—A stone crossing from the foot of the ramp across the wharf, which was 3 feet wide, was re-laid 6 feet wide in October. The woodwork of the wharf was in a shaky condition.

Repairs began in August, by driving piles along the front, cutting them off near the water line, bolting them to the wharf face, and on top of the piles a bevelled waling piece made from 12 in. by 12 in. timber.

The work was carried on at various times as weather and more pressing work would permit. It was completed on the 1st of November. 81 piles in all were driven, the corners of the slip repaired and all rotten plank replaced.

Section 36, Dominion Coal Co.'s Berth.—In July the wharf in front of the track scale in Section 36 subsided for about a foot in depth by a length of about 50 feet. Examination by diver showed that the old sheet piles were broken and the cribwork generally in shaky condition.

As the new wharf in Sections 36-37 under construction is in front of this wharf, a temporary repair only was made.

Section 40.—The top of the wharf was slightly damaged by ice. 25 feet of coping was put on and the top planking renewed in part, and repaired in part, for the same length.

Section 41.—On the 22nd and 23rd of May 30 lin. ft. new coping and 15 feet of new top planking were put on.

Sections 42-43.—At different times in June and July heavy repairs were made to top planking, face planking and coping of the shore wharf in Section 42, and the Laurier Pier, Section 43.

300 lin. ft. of new coping was put on and the top planking renewed for the same length. 235 feet of the face planking was renewed and 4 ladders repaired.

Section 46, Sutherland Pier.—In June, 18 lin. ft. of new coping was put on. 425 feet of the Pier on the upstream and downstream sides and outer end had the top planking renewed.

Lemay Wharf.—(Upper of two wharves at Longue Pointe).

On June 28th the top planking of the wharf was renewed for 60 feet, 6 feet in width.

Doran Wharf (Opposite Longue Pointe Church).

Between the 25th and the 28th of June a thorough repair was made to this wharf. 75 feet of new coping was put on. Two-thirds of the whole planking of the top of the wharf was renewed and the sides of the slip re-built.

The ordinary repairs to the planking and timber work of the wharves were carried out during the summer and extended practically throughout the Harbour.

The bulk of the repairs, however, were between the Victoria Pier, Section 20, and the Sutherland Pier, Section 46.

THE DENONVILLE RAMP.

Sections 35-36, "Denonville" Ramp.

The ramp, which is of timber, was much decayed through age. The "punky"

SESSIONAL PAPER No. 23.

face of the ramp was on fire twice during the year. After the last fire it was found necessary to shore up the central portion of the ramp wall until such time as repairs or re-building can be carried out.

Sills of 12 in. by 12 in. timber were buried in the ground, parallel to and about 25 feet from the face of the ramp.

Braces of 12 in. flat timber were set at ten feet centres butting on the sills and against uprights on the face of the wall. The work began on the 16th of September and was completed on the 1st of October.

Harbour Buildings, Repairs, etc.—On January the 20th, during a high south-west gale, a small portion of the corrugated iron enclosure of the passenger elevator tower of the Harbour Commissioners' Elevator No. 1 was torn off. Again in a windstorm on the 2nd of February a larger area was torn off, about 12 feet by 50 feet being affected, as also slight damage to the galvanized iron cornice, and the coping of a rolling up door at the west end of the building. The work of repair was at once seen to and by the 7th of March the damage had been made good.

Additional fastenings were put into all the corrugated covering of the Passenger Elevator Tower.

Electric Lighting of the Harbour.—The lighting of the Harbour was continued throughout the summer by the Mont. Light, Heat & Power Co., under contract. Lighting commenced on April 27th with three lamps at the Longueuil Ferry, and on the evening of the 1st of May the number was increased to 35 and on the 4th of May to 55 lamps. The number of lamps was increased each night until, by the 24th of May, the whole circuit of 156 lamps was in operation.

This number remained constant until November 5th, when 6 lamps were added in Sections 41-42, the Elder Dempster S.S. Co.'s berth.

On the 19th of November 4 lamps which were in the way of construction of sheds Nos. 3 and 5 were removed for the balance of the season, and on the 21st of November two are lamps were placed at either end of the Harbour Commissioners' saw mill on the Bickerdike Pier.

The largest number of lamps burning at any one time was 171.

GENERAL NOTES.

Latrines and Drinking Troughs.—The latrines of the low level wharves which were stored away for the winter of 1906-1907 were repaired and painted in the early spring and placed in position, the water was connected with them and the water troughs early in May. When the weather became cold in November the stand-pipes, for the supply of water to water carts, were disconnected and stored.

The water troughs and latrines were continued in service for some time longer, and finally the latrines from the low-level wharves were disconnected and stored for the winter. All latrines, hose reel stations, offices and shanties upon the wharves belonging to the Harbour Commissioners were painted with the new standard colours, red and green.

Harbour Yard.—The repairing of the wharf plant and tools was done in the Commissioners' Yard, Papineau Avenue.

The whole of the water carts, road scrapers, sweeper, carts, wagons, "diables," sleighs, etc., were kept in good order and painted with the Commissioners' standard colours, red and green.

The picks and other small tools were repaired in the blacksmith's shop in the yard, and a large quantity of other smith work required for wharf work was also done there.

Fires.—The face of the Denonville avenue ramp, Sec. 35-36, was on fire twice during the summer. The men of the Montreal Fire Department extinguished both fires.

On Thursday, October 31st, a serious fire occurred in the examining warehouse adjoining the Harbour Commissioners' Office.

6-7 EDWARD VII., A. 1908.

On November 6th a large fire occurred at Dominion Park. On Nov. 7th the Church at Longue Pointe was practically destroyed by fire.

On November 22nd, a fire took place in a stevedore's oil and gear shanty at the Manchester Line berth, Sec. 24.

Sinking of Steam Trawler "Mary."—On the 31st of March, the steam trawler "Mary," wintering on the lower side of the Tarte Pier, sunk at her moorings.

The vessel was moored within 4 ft. of the side of the pier, and about 300 ft. inshore from the end.

The "Mary" was solidly frozen in, and the ice frozen to the pier.

When the water rose, the ice close to the pier did not, and the vessel being solid in the ice, the water rose over her gunwale and poured down the hold.

She was later on raised and pumped out, and did not sustain any great damage.

Respectfully yours,

(Signed) J. M. NELSON,

Assistant Engineer.

MONTREAL, Dec. 31st, 1907.

MR. W. J. SPROULE,

Assistant Chief Engineer.

DEAR SIR,—

I beg leave to report on the erection of the Harbour Commissioners' Saw Mill and on its operation from July 24th, when completed, up to 31st December 1907.

NEW WORKS.

The Saw Mill, including machinery, engine and boiler, with the housing, was purchased from the W. J. Poupore Co., on the 26th of March, 1907. It was then on an old dredge hull afloat, and the machinery and housing had to be taken down and put ashore on the end of Bickerdike Pier. This work was commenced as soon as authority was given, and when the ice cleared in the Harbour, sufficiently, the dredge hull was taken over to the pier.

On the 1st of May, all the saw mill machinery, engine, boiler and housing had been placed on the pier.

The foundation for the mill ashore, was made partly, on a small lump of dredge material that was in place, and the balance of the area required was filled up by materials from city excavations delivered free of cost to the Commissioners and from surplus material already on Bickerdike Pier.

Pile driving for the foundations was commenced on the 28th of May, and all the piles, 46 in number, were driven by the 6th of June. The construction of the building was commenced on the 8th of June and the mill started to run on the 24th of July, and has been in actual operation 93 days, up to 30th November.

Lighting the mill by electric light began on the 27th of November.

The mill has been supplied with an effective steam fire pump, with hose, nozzles etc., attached, ready for instant use in case of fire, and in addition a regulation steam boat hand deck pump is in place ready for use in case of an incipient fire when the boiler is not under steam.

During the running time of the mill the building itself has been put into such shape that the work may proceed during the winter. An intake for the water supply has been built and the building has been sheeted, lined and painted.

The lumber and timber sawn in the mill was produced promptly when required, which would not likely have been the case if it had been necessary to have the sawing done at city mills, as in former years.

W. R. LUNAN,

Timber Inspector.

MONTREAL, December 31st 1907.

SESSIONAL PAPER No. 23.

Montreal, December 31st., 1907.

F. W. COWIE, ESQ.,

Chief Engineer,

Harbour Commissioners of Montreal.

Dear Sir,—

I have the honour to transmit herewith my report of the progress made in the construction of the New Steel Freight Sheds and Conveyor Galleries during 1907, and a memorandum regarding the Victoria Pier Passenger Foot Bridge erected this spring.

I am, sir,

Yours obediently,

FREDERICK L. GAGNON,

Assist Engineer.

REPORT OF PROGRESS ON NEW STEEL SHEDS DURING 1907.

Shed No. 2, Bulkhead Wharf, Sections 12 and 13.—The old scoria block paving was entirely removed and the concrete flooring of both floors laid. The ceilings of both floors were whitewashed, all the wooden sliding doors of this shed were built and hung in position complete, except the windows of the doors on the lower floor of the river side. All the steel framing of the sides was erected and rivetted.

The corrugated iron siding of the sides and the Conveyor Gallery was put up. The tripper rails were straightened, and the structural steel for machinery supports was erected in this gallery. The concrete floor cut for structural purposes, was all repaired. The shed is now about 98 per cent completed and has been used continually during the season by the Allan line.

Shed No. 3, Alexandra Pier.—The foundations of this shed were started on the 12th of September. The excavation, concrete piling, concrete piers, and walls, and filling of site were carried on simultaneously and finished on Nov. 1st, 1907.

The concrete of the lower floor was nearly all laid, and the ramps all paved with stone blocks. The steel work of this shed is now being manufactured ready for erection. The site, from the opening of navigation until September 10th, was occupied by the Allan Line.

Shed No. 4, Alexandra Pier.—The site of this shed was thawed out during the winter months and graded to proper level, and the concrete flooring of the lower floor laid. During the summer, the upper concrete flooring was laid. The ceilings of both floors were whitewashed.

The steel framing of the sides of the tower of the Conveyor Gallery and some of the skylights were erected and rivetted. The concrete roof and floor of the Conveyor Gallery, and the concrete roof of the panels of the shed near the tower were laid, and the skylights were all concreted. All the wooden sliding doors of this shed were built and hung in position complete, except the windows in the doors of the lower floor river side. All the ramps have been paved with stone blocks. The corrugated iron of the sides of the shed, and of the Conveyor Gallery, was nearly all erected.

This shed, which is about 92 per cent completed, was occupied for the whole season of navigation by the Dominion Line.

Shed No. 5, Alexandra Pier.—The foundations of this shed were started Aug. 19th, and the excavation, concrete piling, concrete piers and walls and filling in of site of lower floor were carried on simultaneously and finished.

The concrete flooring of the lower floor was laid and the ramps were paved with stone blocks. The Allan Line occupied the site of this shed from the opening of navigation to the last minute before the commencement of laying of foundations.

6-7 EDWARD VII., A. 1908.

Shed No. 6, Alexandra Pier.—The foundations of this shed were begun on Aug. 14th, and the work of excavation, concrete piling, concrete piers and walls and filling in of the site were carried on simultaneously and finished.

The ramps of the lower floor were all paved with stone blocks, and the concrete flooring of the lower floor was laid. The Dominion Line occupied the site of this shed before the foundations were in, and were allowed to unload cargo after the concrete floor was sufficiently hardened to stand traffic.

Shed No. 7, King Edward Pier.—During the winter months the concrete flooring of the lower floor of this shed was laid.

The side framing and all the extra steel of the tower and conveyor gallery were erected and rivetted. The concrete floors of the upper floor and conveyor gallery were finished. The wooden sliding doors and corrugated iron sheathing of the sides were put up. The whitewashing of both ceilings was done and all the ramps paved with stone blocks. The Canadian Pacific Railway S.S. Co. used this shed, which is now about 97 per cent finished, during the whole season of navigation.

Shed No. 8, King Edward Pier.—The concrete flooring of the lower floor of this shed was laid in the winter months. The steel framing of the sides, and of the conveyor gallery, and the steel structure of tower "H" were erected and rivetted. The concrete flooring of the upper floor, the cinder concrete roof and floor of the conveyor gallery and tower were put up. All the wooden sliding doors were made and hung in position complete, except the windows of the doors of the lower floor river side. All the ramps were paved with stone blocks, and the sides of the shed and conveyor gallery were covered with corrugated iron. The whitewashing of both ceilings was done. This shed, which is now about 95 per cent finished, was used during the season of navigation by the Thomson Line.

Shed No. 9, King Edward Pier.—During the winter months, the concrete flooring of the lower floor of this shed was laid.

The side framing and all the extra steel of the tower and conveyor gallery were erected and rivetted. The concrete floors of the upper floor and conveyor gallery were finished. The wooden sliding doors, and corrugated iron sheathing of the sides were put up. The whitewashing of the ceilings of both floors was done and all the ramps paved with stone blocks. The Canadian Pacific Railway S. S. Co. used this shed, which is now about 97 per cent finished, for the whole season of navigation.

Shed No. 10, King Edward Pier.—During this year, the structural steel of this shed and conveyor gallery was all erected and rivetted. The stone concrete flooring of both floors was all laid. The concrete roofs of the shed and conveyor Gallery were also laid. The ramps were all paved with stone blocks.

The whitewashing of the ceilings of both floors was all done. The wooden sliding doors of the upper floor are made and part of them are hung in position.

This shed is now about 70 per cent finished, and has been used for part of the season by the Allan line.

Shed No. 11, Bulkhead Wharf, Section 17.—The foundations of this shed were started on Oct. 2nd. The excavation, concrete piling, concrete piers, walls and filling in of site, were carried on simultaneously and finished on Nov. 4th, 1907.

The site of this shed, before being required for the laying of the foundations, was occupied by the Donaldson Line.

Shed No. 12, Jacques Cartier Pier.—The overhang on the river side of this shed was cut to allow a track being laid between the shed and the edge of the wharf.

The steel work was finished and the concrete floors of both storeys were laid. The cinder concrete roof was also finished. The wooden sliding doors were all made, but not erected.

This shed, which is about 85 per cent finished, was occupied for nearly the whole season by the Thomson and Donaldson Lines.

SESSIONAL PAPER No. 23.

Shed No. 13, Jacques Cartier Pier.—The foundations of this shed were started on the 16th of July. The excavation, concrete piling, concrete piers and walls and filling were carried on simultaneously and finished Aug. 16th.

The crib wharf was anchored with steel anchor rods and the lower floor ramps were all paved with stone blocks.

The site of this shed was used, when foundations were finished, by the Thomson and Donaldson Lines.

Shed No. 14, Jacques Cartier Pier.—The foundations of this shed were started on May 29th. The excavations, concrete piling, concrete piers, walls, and filling were carried on simultaneously and finished on July 24th.

The crib wharf was anchored by anchor rods. The ramps of the lower floor were all paved with stone blocks.

The site of this shed, when foundations were finished, was occupied by the Thomson Line.

Shed No. 15, Jacques Cartier Pier.—The foundations of this shed were started on July 8th. The excavation, concrete piling, concrete piers, walls and filling were carried on simultaneously and finished on Aug. 9th. All the ramps of the lower floor were paved with stone blocks, and the crib wharf was anchored by steel anchor rods.

The site of this shed, after foundations were all finished, was used by the Allan Line.

Shore conveyor galleries Nos. 16, 17, 18 and 19, and towers A, B, C and D.—The construction of the shore conveyor galleries and towers as altered by the contract of Feb. 8th, 1907, was begun on May 16th, 1907, and the work of foundations, structural steel, concrete floors and corrugated iron siding was continued throughout the season.

Tower "C" and gallery 18, between the elevator and shed No. 7, have been completed and are now ready for the installation of Conveyor Machinery.

Tower "A" and Gallery 17, between the Elevator and Shed No. 4, have been erected and their floors laid.

The structural steel for galleries 16 and 19, and towers "B" and "D" is now being constructed at the works of the Dominion Bridge Co.

Victoria Pier Foot Bridge.—The elevated foot bridge over the Harbour railway tracks, at Victoria Pier, giving foot passengers easy access over railway tracks to the river steamers, has been under discussion for some time, and finally the City of Montreal approached the Board of Harbour Commissioners as to its construction.

The Commissioners, following out their policy of owning any structure of a permanent nature on Harbour property, decided on its construction, and passed an agreement with the City of Montreal on the 9th of May, 1906, in which it was stipulated that the Commissioners would build the Foot Bridge, and that the City of Montreal would pay a yearly rental of 5 per cent on the cost, and take this bridge down every fall and re-erect it every spring at the expense of the city.

On the 15th of June, 1906, the Commissioners made a contract with the Canadian Bridge Co. for the construction and erection of this bridge, the contract price being \$8,158. It was finished in the fall, too late to be erected. In the spring of 1907, this bridge was erected and opened to traffic on the 12th of July, 1907.

It was taken down by the City of Montreal and stored along the flood wall on Nov. 21st, after having proved very satisfactory.

6-7 EDWARD VII., A. 1908.

Dec. 7th, 1907.

MR. F. W. COWIE, Chief Engineer,
Harbour Commissioners of Montreal,
Montreal, Que.

Dear Sir,—

I am enclosing a brief description of the conveyor system, for Grain Elevator No. 1, Montreal Harbour, in accordance with your request, and trust that it will be what you desire.

Yours very truly,
(Sgd.) JOHN S. METCALF.

DESCRIPTION OF CONVEYOR SYSTEM FOR HARBOUR COMMISSIONERS OF MONTREAL.

The Harbour Commissioners of Montreal have under construction a system of belt conveyors for delivering grain from their Elevator No. 1 to vessels lying alongside of new freight sheds being constructed on King Edward and Alexandra piers and on two sections of the shore wharf. The elevator is a fire-proof structure of 1,000,000 bushels capacity, receiving grain from railroad cars, and is also equipped with a marine leg for receiving from vessels. Shipping may be done by water, rail or truck.

The new conveyor system will consist of over 6,000 lineal feet of fire-proof galleries, to contain the belt conveyors carrying the grain to the vessels. Eight towers at the junctions of the various conveyors are also a portion of the construction. The plan of handling the grain is as follows:—

Four belt conveyors will be erected inside of the elevator beneath the bins in the east portion of the building. Grain will be discharged from the bins on to these conveyors. Two conveyors will be run south from the elevator and two will be run north. It is necessary to build the galleries above the freight sheds of sufficient height, so that grain can be readily spouted into the holds of the largest ocean vessels arriving at the port of Montreal. Owing to the proximity of the sheds of the elevator, it is not possible to slope the belt conveyors directly up to the height of the galleries above the sheds, as the angle would be too steep to allow grain to be properly carried. For that reason the conveyors from either end of the elevator are first carried to a tower at the nearest corner of the adjacent freight shed, and discharge into elevator legs which raise the grain to the height of the galleries above the sheds. Each of the two above-mentioned towers is equipped with two elevator legs having the full capacity of the belt conveyors discharging into them.

From these towers grain is distributed in two directions:—

1st.—Two belts run east along the water side of the freight sheds on that side of the pier.

2nd.—Two belts run across the end of the pier to a tower at the corner of the shed on the other side of the pier. From this tower again distribution is carried in two ways:—

1st.—Along the water side of the freight sheds on that side of the pier.

2nd.—Along the water side of the freight shed on the adjacent shore wharf.

As there are two freight sheds on each of the piers, the conveyors above these sheds are divided at a point between the two, and another tower is constructed at this point containing the motors for driving the conveyors on either side of the tower.

All of the conveyor galleries are equipped with two belts each, excepting those on the sheds at the outer end of the piers and those on the sheds on the shore wharf, where but one belt is installed in each case. Provision has been made, however, for the ready installation of a second belt, should the business of the port at any future time require it. Each of the belts above the freight sheds is equipped with two trippers for taking the grain off the belt and discharging it through steel spouts into the holds of vessels lying alongside the sheds.

SESSIONAL PAPER No. 23.

There are berths for ten vessels alongside of the conveyor system, and four can be loaded simultaneously, as there are four belts running out of the elevator.

Each belt in the system has a carrying capacity of 15,000 bu. per hour, so that grain can be shipped to vessels at a total rate of 60,000 bu. per hour.

All machinery is driven by electric motors.

The length of the conveyor galleries exceeds that of any similar arrangement for shipping grain to vessels in any portion of the world. Five miles of rubber belt will be required in the entire equipment when all conveyors have been installed.

The freight sheds and the structures of the conveyor galleries and towers are being built by Messrs. Peter Lyall & Sons, of Montreal.

In the early summer of 1907, the Harbour Commissioners took tenders on the furnishing and installation of the machinery equipment. At that time, however, prices were at the highest point which they had reached in many years, and as the time for completing such portion of the equipment as the Commissioners wished to have ready for use on the opening of navigation in 1908 was very short, considering the large amount of work to be done, it was considered advisable to find some way by which completion in that time could be insured and by which the Commissioners could get the benefit of any reduction in prices which might occur before completion of the entire system. It was not considered that the former of these results would be accomplished with sufficient certainty if the work was left entirely in the hands of a contractor, and the latter result, saving of money by reduction in prices later, would be impossible. It was therefore decided to instruct the Metcalf Engineering Limited to carry on the work for account of the Harbour Commissioners, and only such portions of the equipment were to be ordered at once as should be necessary for the completion of that part of the system which was to be in operation by the opening of navigation in 1908. In this way, any reductions in the cost of other portions of the equipment installed somewhat later would be a saving in favour of the Harbour Commissioners. Work was therefore proceeded with in this way. Metcalf engineering Limited furnishing lists of material for immediate purchase which the Harbour Commissioners contracted for from time to time, and the installation was started by the forces of the Commissioners themselves under the supervision of Metcalf Engineering Limited, subject to the orders of Mr. F. W. Cowie, Chief Engineer. Work is now being proceeded with on this basis.

On June 1st, 1907, the galleries above freight sheds No. 2, 4, 7, 8, 9 and 10 had been practically completed as far as the structural steel work was concerned, and one of the towers on King Edward Pier was in the same condition. The floor in Gallery No. 2 had been partially completed. It was decided to endeavour to have the galleries of two of the sheds on King Edward Pier and one on Alexandra Pier completed, with machinery equipment, ready for operation at the opening of navigation in 1908, and the two remaining galleries on King Edward Pier, and the one on Shed No. 2 on the shore wharf, completed ready for operation July 15th, 1908. For this reason, beginning with June, 1907, work was pushed on such portions of the system as it was necessary to complete earliest.

By December 1st, 1907, the three galleries above mentioned with the four towers necessary for their operation and the connecting galleries to the elevator, had been almost completed as far as the structures themselves were concerned, and the installation of the machinery equipment had reached an advanced stage.

It is anticipated that the above three galleries will be ready for operation at the opening of navigation in 1908, three more with their towers by July 15th, 1908, and work will be proceeded with on the remaining four as soon as the sheds beneath them have been constructed.

The foundations for these sheds have been completed.

6-7 EDWARD VII., A. 1908.

HARBOUR COMMISSIONERS OF MONTREAL.

GRAIN ELEVATOR NO. 1.

Montreal, Dec. 31st, 1907.

F. W. COWIE, ESQ.,
Chief Engineer,
Harbour Commissioners.

Dear Sir,—

I beg to submit for your information my report of the Harbour Commissioners' Elevator No. 1, for the season of 1907.

The following shows the quantities of grain received, delivered and on hand:—

	Bushels.
Grain in store, end 1906.....	23,193
Received during 1907.....	1,078,289
	<hr/>
	1,101,482
Delivered during 1907.....	932,112
	<hr/>
Remaining in store at end of 1907.....	169,370

The repairs done consisted principally of the overhauling of elevator legs, replacing buckets, babbitting boxes, painting inside spouts, structural steel work, etc., and the building is now in first-class condition.

The Elevator is of the Marine type and designed to hold about 1,000,000 bushels of grain. The bins are built in circular style with interspaces also constructed to be used for storage purposes. There are three different sizes of bins with a storage capacity of 20,000, 7,000 and 3,000 bushels each.

The maximum load carried was in 1905, and amounted to about 60 per cent. of its carrying capacity.

The whole respectfully submitted,

Yours obediently,

JERE NEHIN,

Superintendent Harbour Commissioners' Elevator No. 1.

STABILITY OF ELEVATOR.

Nov. 5th, 1907.

G. W. STEPHENS, ESQ., M.L.A.,
President, Harbour Commissioners,
Montreal.

Mr. President,—

I have the honour to report, as requested, in your letter of 9th October, 1907, on an investigation into the stability and general structure of the Harbour Commissioners' Grain Elevator No. 1.

In view of the fact that you desired a report not only based on opinions, but on comparative measurements and levels of the structures, as it exists to-day and as recorded during construction, Mr. Arthur St. Laurent, Assistant Chief Engineer of the Public Works Department, who had charge for the Government of the construction of the elevator, was requested to make an examination and report in detail.

Mr. St. Laurent has presented a report, which is herewith attached, dated October 28th, 1907, and which gives complete details of the present efficiency,

SESSIONAL PAPER No. 23.

stability and manner in which the elevator stood since it was completed and placed in operation.

The Commissioners have therefore a report based on a complete knowledge of the construction of the elevator, details of measurements taken during construction and at the present time, and also the opinions of Mr. St. Laurent, which will give complete assurances as to the elevator which it is expected will be used to its full capacity in the near future.

At my request, we have received the elevation of the various points and benchmarks, which will be valuable as records for future reference.

Mr. St. Laurent's remark, that any rumours or statements that the stability of the elevator has been impaired since completion were maliciously false and without foundation in fact, is a complete summing up of his report.

The description of the piling for the foundations of the elevator shows that the load per pile is 18 tons, which is a very safe one, especially as in the new steel sheds the load per wooden pile is from 22 to 25 tons.

The fact that the footings are not independent, but all tied together transversely with re-inforced steel, gives an additional and uniform stability, and strengthens the outer row of piers, the piles in which, are nowhere nearer than 27 feet from the edge of a permanent concrete bulkhead wall.

An examination of the plans reveals in my opinion a foundation of exceptional strength and stability.

Mr. St. Laurent states that during construction, he had a set of elevations of fixed points taken. It was expected that when the elevator was subjected to a full load, a general compression would take place of from 1 inch to 1½ inches. The results of the levels taken by Mr. St. Laurent on October 22nd, 1907, after the elevator had been in operation four years, show that the general compression was less than expected. The compression on the city side of the elevator varied at the very most from one quarter of an inch to half an inch, and the settlement on the river side of the elevator was nil.

As the settlement was nothing on the River side, where it would naturally be expected, I think the conclusions can only be most satisfactory.

Mr. St. Laurent further states that as the elevator has already been submitted to 82½ per cent of the maximum possible load, and as the bins have been filled without paying any attention to their position, in loading, the foundations of the elevator have already proved their strength. He further states that this unequal loading, before the foundations at the various points had been fully weighted, must necessarily produce some cracks.

It is further mentioned that "it is eminently satisfactory to find that the structure has stood so well under an initial unbalanced maximum load."

With regard to the cracks in the concrete, Mr. St. Laurent states that they are not so numerous as expected. Those in the curtain wall are said to have appeared in the beginning. Since the elevator has been put into operation, they have not materially increased, and probably to a great extent they are caused by shrinkage.

Mr. St. Laurent further suggests a way to cover up these cracks in the curtain wall, which I would recommend to be done next spring.

He states that his own examination of the interstice bins, about two years ago, and the further examination at the present time by a steel inspector, prove that the steel in these bins is still in the same perfect condition.

This report is a very valuable one, and I am sure the Commissioners will appreciate the full and complete examination made, and the plain, straightforward and convincing way in which the results are given.

In view of this full report, I believe it will be unnecessary for me to make any further statement than that I fully concur in Mr. St. Laurent's conclusions.

I am, sir, Yours obediently,

F. W. COWIE, Chief Engineer.

6-7 EDWARD VII., A. 1908.

Ottawa, Can.. Oct. 28th. 1907.

F. W. COWIE, Esq.,

Chief Engineer,

Montreal Harbour Commission,

Montreal, P. Q.

Dear Sir,—

In accordance with the wishes of the Harbour Commissioners, as stated in your letter of the 16th instant, I have visited the Commissioners' grain elevator, built in 1902 and 1903 by the Steel Storage and Elevator Construction Company of Buffalo, N. Y., and beg to submit my report, in regard to its present efficiency, stability, and as to the manner in which it has stood generally since it was completed and placed in operation.

I must sincerely thank the Commissioners and yourself for the trust reposed in me, and I am pleased to be able to state most emphatically that I have found the elevator in very good condition, and that any rumours or statements that its stability was impaired since completion are maliciously false and without any foundation in fact.

ELEVATOR BUILDING.

FOUNDATIONS.

The structure below the bin floor is entirely composed of reinforced concrete resting on wooden pile foundations.

The number of piles required according to the plans was 2444, allowing a maximum load per pile of about 20 tons with full bins. The number placed in the work was 2,879, or 435 more than called for by contract. This includes 71 piles which were badly split or broken in driving, or did not come to a hard bearing, and in every case these were ordered to be replaced by the addition of extra piles at the Contractor's expense.

The number, therefore, of sound piles in the work is 2,808, the increased number over that shown in plans reducing the maximum possible load on each pile to a little less than 18 tons, a very safe allowance in hard material. The length of piles left in the work after cutting off at low water level to receive the concrete footing blocks varied from 18 feet to 42 feet, the shorter lengths being caused by meeting with some obstructions, probably stone or pieces of old cribs which could not be penetrated deeper.

Immediately on top of the piles after cutting off, corrugated steel bars, 2 inches square, were laid, and concrete deposited in continuous footings 5 feet thick, forming the base of the pier system supporting the whole building.

These footings are not independent, but are all tied together transversely with reinforcing steel which binds the whole mass of piles together.

These explanations are given to show that the pile foundations on which depended the stability of the structure has been done with the utmost care, and is as strong as it was possible to make it in a location where solid rock was not available.

On account of the nature of the material, and according to the general experience in buildings submitted to extreme loading, it was expected that a compression in foundations of one to one and a half inches would take place under full load, which, of course, would produce cracks, which are fully to be expected in a concrete building.

As Engineer in charge of the construction, in order that I might be able to satisfy myself as to the amount of compression which might take place, I arranged to have a net of elevations at fixed points taken for comparison later with several levels taken on same points.

SESSIONAL PAPER No. 23.

In table No. 1 are given elevations deduced in July, 1904, before the building received any grain, and also the determination of the same points on October 22nd, 1907, after the house had been in operation four years.

I need not analyse these figures in detail. They plainly show that the compression during that time has been much less than expected and they are a positive and absolute proof that no undue settlement has taken place. In comparing the two columns of elevations in table No. 1 taking into account, the personal factor in reading, holding the rod, etc., which allows of unavoidable slight variations in levelling, it can be seen that the compression in foundation has varied from nothing to 1-8 or at most 1-4 inch, which is remarkably low in this kind of structure.

No doubt, some compression took place during construction, and a set of elevations entirely independent from those given in table No. 1 are given in table No. 2, which give a very gratifying check.

Iron bolts were set into the base of some of the concrete piers, and levels taken in 1903, during construction by Mr. J. Lamoureux, Assistant Engineer on the work.

The location of these points is shown in diagram No. 1 and during my visit to Montreal, on October 22nd, 1907, I determined again these elevations, starting from the same initial point as used in the 1903 determination. The result as given in table No. 2 shows the compression to have been very slight even during construction and much less than expected.

The total weight on the foundations with full bins was calculated to be about 48,000 tons, the empty, building being one-half that amount or 24,000 tons. At one time the storage of grain amounted to about 65 per cent, of the total capacity of the elevator. The foundations, therefore, considered as a whole, have been submitted to 82.5 per cent. of the maximum possible load over the whole area covered by the building. This area is very large and may be considered in sections.

The Superintendent of the elevator informs me that the bins in different sections have all been filled at different times, without paying any particular attention to mode of loading. Each part, one after the other, has therefore been submitted to the extreme maximum load, and this is the most severe test a building can endure. Under these conditions the strains in foundation, which have not yet been submitted and before full compression has taken place, are unequal and bound to produce cracks.

In a letter dated June 10th, 1904 addressed to the Harbour Commissioners, in regard to the taking over of the elevator from the Contractors, I said the following in reference to the method of loading: "It is very important that the first loading be done carefully and systematically." "The distribution of grain should be gradual and uniform as much as possible, all over the area covered by the elevator, until all the bins have been practically filled, in order that the usual compression in foundations, under maximum loading takes place in an even and gradual manner."

"Otherwise, if a section of the house is fully loaded and the rest practically empty, it will create unequal compression and will produce cracks."

"When the elevator has been fully loaded in the manner suggested and that full compression has taken place, then the mode of loading may be done in the most convenient way."

Probably it was impossible to secure enough grain to carry on the full loading in the manner suggested and it is eminently satisfactory to find that the structure has stood so well under an initial unbalanced maximum loading.

CRACKS IN WALLS.

Cracks have appeared at some points in the concrete, but they are not as numerous as expected. In all buildings of this character it is impossible to prevent the cracking of some of the walls or concrete members, due to slight settlement, or shrinkage or expansion and contraction.

In the may reinforced concrete structures, which I have visited, cracks have shown, especially in elevator buildings which are submitted to extreme loads. They cannot be avoided and with the heavy steel reinforcements used in the different members, cracks do not materially affect the strength of the building as all the strains in tension are taken by the steel encased in the concrete for that purpose.

The cracks noticed in the curved curtain walls at the corners do not affect the building in any way as these curtain walls are not an essential part of the building for strength in supporting a load. As can be seen by sketch No. 2, figures 1 and 2, these curtain walls do not stop at wharf level but are carried right to the footings supported on piles and their bearing power is not impaired by whatever partial load they may have to support. These cracks appeared in the beginning; and since the elevator has been in operation they do not seem to have materially increased. Certainly they are about the same as they were two years ago. These curtain walls were moulded in one piece and it is possible that on account of their shape, the cracks which appeared are due more to shrinkage than to compression, however, probably to both causes combined.

Whatever the cause which may be assigned for their appearance, comparative elevations given, show conclusively that they are not caused by any undue settlement, and about all that is required would be that the cracks should be neatly painted for appearance sake and to keep any water or frost from getting into them and increasing their size.

I am informed that during the testing of the machinery, one of the contractor's foremen, who had been left behind to look after these tests attempted to fill these cracks with mortar. To do this he chipped off the corners on both sides in a very irregular manner and made them appear much worse than they were. Being unskilled at this kind of work the filling he put in, naturally did not hold.

A better way to fix these walls perhaps than that suggested above, would be to secure some kind of wire netting to the outside face, after picking it out as rough as possible, building a mould with close scantlings lined with galvanized sheet iron 3 or 4 inches from the face, and filling in the whole space with fine wet concrete right up to the top girder as shown by the red strip to fig 2 of sketch No. 2. Mr. McCabe would understand thoroughly how to do this work, under the best conditions, which would cost very little. It is my opinion that cracks would again probably appear, but not to such an extent and certainly would not be so unsightly.

GRAIN BINS.

As there has been much discussion as to the advisability of utilizing the inter-spaces left between the circular bins for storage, I went down myself about two years ago into some of the interstice bins which had been most frequently used to ascertain if some of the rods had been strained or if the wall had a tendency to show buckling under grain pressure. Everything was found in the same state as when built.

During my last visit, I arranged with one of our steel inspectors to examine again such of the interstice bins which were pointed out by the superintendent as having been loaded more frequently than the others, under the most adverse conditions while some of the surrounding circular bins were empty. Everything was found to be in perfect condition.

The superintendent informs me, moreover, that the machinery is in fine shape, and by what I have seen, he certainly deserves praise and great credit for the care shown in the general management of the elevator.

Generally, in all elevator buildings, where there is such a mass of various machinery and appliances required for the rapid handling of grain, accidents or breakdowns are of frequent occurrence.

In private elevators, such breakdowns are quietly repaired and are not heard of, but in public elevators, any breakdown is at once known and thought to be unusual with deductions made that the house is inefficient.

SESSIONAL PAPER No. 23.

I am glad to be able to state Mr. Nehin's experience who has had charge of operating four new elevators before he came to Montreal. He states most positively that the house in which he is now superintendent has given him the least trouble in the way of accidents and breakdowns.

MARINE TOWER DOCK.

The portion of the shore wharf immediately in front of the elevator, supporting the Marine tower, rests on crib and pile foundation. The entire front is made of close piles 14 ft. x 14 ft. square, driven practically to refusal, supporting the outside face of the dock.

The retaining walls of the shore wharf on both sides of the elevator, joining to Alexandra and to King Edward piers rests on cribs only, the same as the other shore wharves in the Harbour. During the construction of these walls and the addition of filling at the back, the cribs settled to some extent, and both ends of the marine tower dock were slightly affected, producing cracks.

This dock is not tied in any way to the elevator building and has entirely independent pile foundations.

Since completion it can be seen by the comparative elevations given in table No. 3 that the settlement, if any, is hardly perceptible and that the dock has not been disturbed.

IN FLOOR.

At the north end of the elevator, there is a small area of flooring which springs under the foot, indicating that probably the wire netting used as reinforcement is partially detached from the cinder concrete slab. Though it may stand forever like that, it might be advisable to cut out the concrete for an area of about 5 feet by 10 feet and put in a new slab, which I presume will only cost about \$25.00 to \$30.00. In cutting out it may be found that a much shorter slab than stated will prove sufficient.

In conclusion, regarding the stability of the elevator building, which is the main point under consideration, and basing my deductions only on my actual knowledge of the piling made in the foundations and the way this piling was put down under the supervision of most trusty and faithful inspectors, I must emphatically declare that as far as human knowledge goes, it would be beyond my comprehension if the foundation should show any sign of failing.

Of course it must also be borne in mind that slight gradual settlement which often occurs in heavy structures do not endanger their stability.

But in this building, the comparative figures given, show most conclusively that even the amount of usual compression is less than anticipated, and refute positively, all stories of undue settlement.

Cracks, however, in concrete buildings even with the best of artificial foundations will continue to appear, no matter what is done, under the combined influences of usual compression, shrinkage in the material itself or expansion and contraction under the extreme variations of temperature in this country. They do appear, sometimes in most unexpected places, and their appearance is hard to explain.

Heavy steel reinforcement for all vital parts is the best guarantee of safety and the present structure is heavily reinforced throughout.

I have the honor to be,

Sir,

Your obedient servant,

A. ST. LAURENT.

(The following tables, Nos. 1, 2 and 3, accompanied the above report.)

HARBOUR COMMISSIONERS' GRAIN ELEVATOR.

COMPARATIVE LEVELS—TABLE No. 1.

For location of points which are marked thus † on working floor close to each pier in Elevator refer to Diagram No. 1.

Starting point—top of flood wall, St. Sulpice Street opening—elevation 127.00.

Reference points marked thus †	Set of Elev. taken July, 1904, after completion and before receiving grain.	Set of Elev. taken Oct. 22nd, 1907.	Remarks.
Pier No. 1	119.355		
" 2	119.38	119.38	
" 3	119.38	119.37	
" 4	119.38	119.385	
" 5	119.38	119.37	
" 6	119.345	119.33	
" 7	119.355	119.35	
" 8	119.335	119.32	
" 9			No levels taken.
" 10	119.25		Original mark not found.
" 11	119.31	119.29	
" 12	119.275	119.26	
" 13	119.39	119.38	
" 14	119.36	119.364	
" 15	119.40	119.41	
" 16	119.33	119.327	
" 17	119.34	119.337	
" 18	119.37		Original mark could not be found
" 19	119.33		" " " "
" 20	119.30	119.30	
" 21	119.37	119.372	
" 22	119.36	119.362	
" 23	119.30	119.29	
" 24	119.32	119.315	
" 25	119.41	119.412	
" 26	119.30	119.295	
" 27	119.295		Original mark not found.
" 28	119.30		" " "
" 29	119.285	119.29	
" 30	119.301	19.29	
" 31	119.30	119.33	Not on original mark.
" 32	119.33	119.33	
" 33	119.355	119.35	
" 34	119.335	119.33	
" 35	119.385	119.387	
" 36	119.39	119.34	
" 37	119.335	119.33	
" 38	119.365	119.377	
" 39	119.385	119.374	
" 40	119.415	119.387	
" 41	119.335	119.387	Original mark not found. New point.
" 42	119.35	119.372	" " " "
" 43	119.345	119.357	
" 44	119.365	119.37	
" 45	119.325	119.327	

SESSIONAL PAPER No. 23.

HARBOUR COMMISSIONERS' GRAIN ELEVATOR.

COMPARATIVE LEVELS—TABLE No. 2.

Top of Flood Wall 127' 00"

Reference points iron bolts in concrete.	Elevations by Mr. Lamoureux in 1903 during construction.	Elevations on same points as determined October 22nd, 1907, or four years after.	REMARKS.
For	location of points	refer to diagram	No. 1.
A	118.595	118.57	Compression .025
B	118.63	118.61	" .02
C	118.53	118.48	" .05
D	118.72	118.675	" .45
E	118.72	118.682	" .038
G	119.55	119.545	" Nil.

HARBOUR COMMISSIONERS' GRAIN ELEVATOR.

MARINE TOWER DOCK.

COMPARATIVE LEVELS—TABLE No. 3.

Elevation Top of Flood Wall 127' 00"

Reference Points.	Elevations taken by Mr. Lamoureux October, 1903, after completion.	Elevations determined October 23rd, 1907, or four years after.	REMARKS.
1	118.88	118.87	
2	118.95	118.925	
3	118.98	118.99	
4	118.95	118.96	
5	119.02	119.00	
6	118.89	118.85	
7	118.73	118.65	

HARBOUR DREDGING.—Statement showing the number of days worked by each dredge and the quantity dredged at each place in the Harbour of Montreal in 1907.

NUMBER OF DREDGE.	PLACES AT WHICH DREDGING WAS DONE.	TIME OF SERVICE.		QUANTITIES DREDGED.		CHARACTER OF MATERIAL DREDGED.
		Days.	Total.	Cubic Yards.	Total Yards.	
Spoon Dredge No. 2	Basin Sections 12S to 14S.....	1		300		Blasted Rock.
	" " 17 and 18.....	1		300		Silt and deposit.
	" " 36 to 39.....	45½		40 075		Gravel, sand and stones
	Cribsteats Sections 36 and 37.....	51		33,300		" "
	Deepening at Coal Towers.....	5		1,50		Silt and deposit.
	Ship Channel, Sections 33 to 40.....	52		40,000		Stones, gravel, sand, hardpan, etc.
	Shoal, Sections 56 to 59.....	19	174½	19,500	138,825	Gravel, sand and stones.
Spoon Dredge No. 4...	Basin Sections 13N and 14N.....	3		1,050		Blasted Rock.
	" " 12S to 14S.....	93½		36,901		" "
	" " 15.....	4		2,700		Slit and deposit.
	" " 17 nad 18.....	6½		4,200		" "
	" " 20.....	2½		1,200		" "
	" " 36 to 39.....	14		11,100		Gravel, sand and stones.
	Cribsteats Sections 36 and 37.....	3½		1,385		Gravel, sand and stones.
	Shoal Sections 56 to 59.....	49	176	59,960	118,496	" "
Total Harbour Dredges.....			350½		257,321	
Government Elevator Dredge No. 1.....	Ship Channel in Harbour, Sections 21 to 37...	106	106	50,400	50,400	Boulders, stones, sand, hardpan, etc.
Grand Total.			456½		307,721	

GEO. SMART, Accountant.

SESSIONAL PAPER No. 23.

HARBOUR DREDGING.—Statement showing cost of Harbour Commissioners' dredging by different dredges, with their proportion of tug and scow service for 1907.

VESSELS.	Dredge Service. Cost.	Tug Service. Proportion of cost.	Scow service and sundries. Proportion of cost.	Dredge with tug and scow service. Cost.	Time of service Days.	Quantity dredged. Cubic Yards.	Average cost per cubic yard.	Proportion of materials dredged.	
								Earth.	Rock.
Dredge No. 2.	\$14,188.81	12,615.96	\$12,024.45	\$38,829.22	174½	138,825	\$.27 ⁹ / ₁₀₀	100%	.....
" No. 4.	18,195.61	12,724.41	12,127.81	43,047.83	176	118,496	.36 ⁸ / ₁₀₀	69%	31%
Govt. Dredge No. 1	3,436.64	1,463.03	.....	4,899.67	.....	50,400	.09 ⁷ / ₁₀₀	100%	.....
Totals and averages	35,821.06	\$26,803.40	\$24,152.26	\$86,776.72	.....	307,721	28 ¹ / ₁₀₀	.....	.....

GEO. SMART, Accountant.

6-7 EDWARD VII., A. 1908.

HARBOUR DREDGING.—Statement showing the number of days worked by each dredge, and the quantity dredged at each place in the Harbour of Montreal in 1907.
(The quantities are cubic yards scow measurement and the cost includes everything but derrick work.)

PLACES WHERE DREDGES WORKED.	VESSELS.	TIME OF SERVICE.		QUANTITY DREDGED.		COST PER CUBIC YARD. ^y	
		Days.	Total.	Cubic Yards.	Total Yards.	Each Dredge, Cents.	Average, Cents.
Basin, Sections 13n and 14n.....	Spoon Dredge No. 2	3	3	1,050	1,050	69 82-100	69 82-100
Basin, Sections 12s to 14s.....	Spoon Dredge No. 2..... " No. 4	1 93½	94½	300 36,901	37,201	74 16-100 61 94-100	62 04-100
Basin, Section 15.....	Spoon Dredge No. 4.....	4	4	2,700	2,700	36 20-100	36 20-100
Basin, Sections 17 and 18.....	Spoon Dredge No. 2..... " No. 4	1 6½	7½	300 4,200	4,500	74 16-100 37 82-100	40 24-100
Basin, Section 20.....	Spoon Dredge No. 4.....	2½	2½	1,200	1,200	50 91-100	50 91-100
Basin, Sections 36 and 37.....	Spoon Dredge No. 2..... " No. 4.....	45½ 14	59½	40 075 11,100	51,175	25 27-100 30 82-100	26 47-100
Crib Seats, Sections 36 and 37.....	Spoon Dredge No. 2..... " No. 4.....	51 3½	54½	33,300 1,385	34,685	34 08-100 63 34-100	35 25-100
Dredging at Coal Towers, Section 36.....	Spoon Dredge No. 2.....	5	5	1,350	1,350	82 40-100	82 40-100
Ship Channel, Sections 33 to 40.....	Spoon Dredge No. 2.....	52	52	44,000	44,000	26 30-100	26 30-100
Shoal, Sections 56 to 59.....	Spoon Dredge No. 2..... " No. 4.....	19 49	68	19,500 59,960	79,460	21 68-100 19 98-100	20 39-100

SESSIONAL PAPER No. 23.

Total by Harbour Dredges.....	350½	257,321	31 85-100
Ship Channel, Sections 21 to 37.....	106	50,400	.....
	106	50,400	.....
Grand Totals.....	456½	307,721	.....

GEO. SMART, Accountant.

HARBOUR DREDGING—Cost of Harbour Dredging Fleet in 1907.

(Including all charges for Tug, Scow and Derrick Service—Credits for work done outside of regular dredging not included).

NUMBER OF DREDGE	Days Service of Dredge.	COST OF DREDGES		COST OF TUGS		COST OF SCOWS, ETC.		COST OF DREDGE per day including Scow and Tug Service.	
		Per day of Dredge	Total	Per day of Dredge	Total	Per day of Dredge	Total	Per day	Total Cost
Spoon Dredge No. 2.....	174½	\$81.31	\$14,188.81	\$72.30	\$12,615.96	\$68.90	\$12,024.45	\$222.52	\$38,829.22
" No. 4.....	176	103.38	18,195.61	72.30	12,724.41	68.90	12,127.81	244.55	43,047.83
Total for Dredges.....	350½	\$92.39	32,384.42	\$72.30	\$25,340.37	\$68.90	\$24,152.26	\$233.60	\$81,877.05
Floating Derricks, employed in handling materials dredged.....									30,734.61
Total for Regular Harbour Fleet.....									\$112,611.66
Government Elevator Dredge No. 1 (Cost of Fuel and Sundry Repairs).....									3,436.64
" Tug "Portneuf".....									1,463.03
Grand Total.....									\$117,511.33

GEO. SMART, Accountant.

HARBOUR DREDGING.—Statement showing particulars of cost of working the different vessels employed in Harbour dredging in 1907.

VESSELS.	Repairs and Maintenance.	Fuel	Wages of Crews	Proportion of salaries of staff.	Cost	Less Credits	Net Cost	Total Cost	Days of Service	Cost per day
Dipper Dredge No. 2.....	\$7,264.40	\$1,897.50	\$4,941.18	\$445.73	\$14,548.81	\$360.00	\$14,188.81	.....	174½	\$81.31
" " No. 4.....	\$11,051.17	1,830.00	5,041.95	572.49	18,495.61	300.00	18,195.61	.....	176	103.38
Dipper Dredges—Totals.....	\$18,315.57	\$3,727.50	\$9,983.13	\$1,018.22	\$33,044.42	\$660.00	.....	\$32,384.42	350½	\$92.39
Floating Derrick No. 1.....	\$1,262.93	1,181.25	3,720.21	202.06	6,366.45	80.00	6,286.45	.....	180½	34.82
" " No. 3.....	3,493.91	412.50	1,366.01	171.45	5,443.87	405.00	5,038.87	.....	50	107.77
" " No. 4.....	1,868.63	927.50	3,044.57	190.81	6,031.51	1,080.00	4,951.51	.....	120	41.26
" " No. 5.....	2,193.59	847.50	3,408.47	211.54	6,661.10	540.00	6,121.10	.....	145½	42.07
" " No. 6.....	3,691.13	1,031.25	3,736.03	278.27	8,736.68	400.00	8,336.68	.....	149	55.95
Floating Derricks—Totals.....	12,510.19	4,400.00	15,275.29	1,054.13	33,239.61	2,505.00	.....	30,734.61	645	47.65
Tug Alphonse Racine.....	2,440.42	2,246.25	3,139.38	260.05	8,086.10	.....	8,086.10	.....	200	40.43
" " Robert Mackay.....	2,726.35	2,613.75	3,073.04	279.55	8,692.69	120.00	8,572.69	.....	197	43.51
" " Aberdeen.....	1,327.29	2,906.25	3,160.32	245.69	7,639.55	120.00	7,519.55	.....	197	38.17
" " Courier.....	681.91	277.50	1,287.99	74.63	2,322.03	1,160.00	1,162.03	.....	91	12.77
Tugs—Totals.....	7,175.97	8,043.75	10,660.73	859.92	26,740.37	1,400.00	.....	25,340.37	685	36.99
Scows and Sundry Plant.....	\$24,029.94	.....	.....	302.32	24,332.26	180.00	.....	\$24,152.26	.....	.....
Government Dredge No. 1.....	172.31	3,153.75	.....	110.58	3,436.64	.....	.....	3,436.64	.....	.....
" " Tug Portneuf.....	6.00	1,410.00	.....	47.03	1,463.03	.....	.....	1,463.03	.....	.....
Grand Totals.....	\$62,209.98	\$20,735.00	\$35,919.15	\$3,392.20	\$122,256.33	\$4,745.00	.....	\$117,511.33	.....	.....
Tug St. Peter, employed at Fire Protection service.....	\$1,328.43	\$1,650.00	\$4340.75	\$243.22	\$7,562.40	.....	.....	\$7,562.40	200	\$37.81

GEO. SMART, Accountant.

HARBOUR DREDGING.—Portion of Cost in 1907 Charged to Dredging Account.

PLACE WHERE DREDGED.	PLACE WHERE DEPOSITED.	AMOUNT TO DREDGING ACCOUNT.	TOTAL
Basin Sections 12s to 14s.	Crib seats, Section 35.	\$8,030.68	
	Sheds, Sections 14, 17 and 18.	4,861.52	
	Filling Wharf at Shop.	218.61	
	Wharf Repairs, Section 23.	437.22	\$13,548.03
Basin Sections 13 and 14.	Sheds, Sections 14, 17 and 18.	423.45	423.45
Basin Section 15.	" "	634.90	634.90
Basin Sections 17 and 18.	" "	1,149.07	1,149.07
Basin Section 20.	Crib seats, Section 35.	370.44	370.44
Basin Sections 36 and 37.	" "	9,531.06	\$9,531.06
Wharf crib seats, Section 37.	Breakwater, Section 35.	3,177.49	
	Railway Embankment, Sections 55 to 60.	4,489.45	
	Telephone Station, Section 75.	249.30	
	Mackay Pier (Guard Pier).	69.12	
Coal Towers, Section 36.	Spoil Bank, Sections 55 to 60.	629.30	7,985.36
Ship Channel, Sections 33 to 40.	Crib seats, Sections 35 and 36.		629.30
	Breakwater, Section 35.	3,914.28	
	Spoil Bank, Section 47.	2,357.14	
	" Sections 55 to 60.	742.55	
	Railway Embankment, Sections 55 to 60.	74.26	
	Breakwater, Sections 35 and 36.	105.64	
Shoal Sections 56 to 59.	Spoil Bank, Section 47.	57.10	7,193.87
	Spoil Bank, Section 55 to 60.	1,980.73	
	Railway Embankment, Sections 55 to 60.	2,109.07	
		8,218.64	
Ship Channel in Current, by Government Dredge No. 1	Total by Harbour Dredges.		12,365.54
	Filling behind Cribbs, Sections 35 and 36.	277.02	53,831.02
	Spoil Bank, Sections 63 and 64.	2,172.81	
Grand Total charged to Dredging Account.			2,449.83
			56,280.85

GEO. SMART, Accountant.

6-7 EDWARD VII., A. 1908.

HARBOUR DREDGING.—*Cost of Portion of Material charged to Place where the dredgings were used in 1907.*
(Half cost of Dredging and handling by derricks charged to dredging account, as per accompanying Statement).

PLACE WHERE DEPOSITED.	PLACE WHERE DREDGED	QUANTITY DEPOSITED		HALF COST CHARGED TO DEPOSITING
		CUBIC YARDS	TOTAL YARDS	
Filling Cribbs Section 35.....	Basin, Sections 12s and 14s..... Basin, Section 20..... Basin, Sections 36 and 39..... Ship Channel.....	22,051 1,200 51,175 21,106		
Breakwater Sections 35-6.....	Cribseats, Sections 36 and 37..... Ship Channel..... Shoal, Sections 56 and 59.....	13,800 17,925 560	95,532	\$21,846.46
Spoil Bank Section 47.....	Ship Channel..... Shoal, Sections 56 to 59.....	4,000 12,700	32,285	5,591.74
Spoil Bank Sections 55 and 60.....	Coal, Towers Section 36..... Ship Channel..... Shoal, Sections 56 and 59..... Wharf Scow.....	1,350 400 13,522 3,703	16,700	2,723.29
Ry. Embankment Section 37.....	Cribseats, Sections 36 and 37..... Ship Channel..... Shoal, Sections 56 and 59.....	19,503 569 52,678	18,975	3,213.58
New Steel Sheds.....			72,750	12,813.73
	Basin, Sections 14 and 13..... Basin, Sections 12s and 14s..... Basin, Section 15..... Basin, Sections 17 and 18..... Bickerdike Pier (Rehanded).....	1,050 13,350 2,700 4,500 21,075		
Wharf at Machine Shop.....	Basin, Sections 12s and 14s.....	600	2,675	11,617.59
Mackay Pier.....	Cribseats, Sections 36 and 37.....	300	600	218.61
Harbour Repairs.....	Basin, Sections 12s and 14s.....	1,200	300	69.12
Signal Service.....	Cribseats, Sections 36 and 37.....	1,082	1,200	437.22
			1,082	249.30

SESSIONAL PAPER No. 23.

Totals by Derricks and dump scows.....	From:— Harbour Dredging.....	257,321		
	From Wharf Scow.....	3,703		
	Bickerdike Pier.....	21,075	282,099	\$58,780.64
Cribwork Sections 35 and 37	From Dredge No. 1	5,700		
Spoil Bank Sections 63-4 from Dump scows.....	Ship Channel.....	44,700	50,400	2,449.84
	Grand Totals.....		332,499	\$61,230.48

NOTE:—Of the above quantity 68,885 cubic yards was deposited from dump scows and 263,614 by floating derricks.

GEO. SMART, *Accountant.*

HARBOUR DREDGING.—Comparative cost from 1875 to 1907, inclusive. (The quantities are scow measurement, and the cost includes handling by floating derricks.)

YEARS.	CUBIC YARDS DREDGED.	TOTAL COST DOLLARS.	COST PER CUBIC YD. CENTS.	KIND OF DREDGES EMPLOYED.
1875...	151,719	68,979	45	
1876...	156,082	55,462	35 ^{5.0} ₁₀₀	
1877...	173,499	45,103	26	
1878...	211,731	48,748	23	
1879...	189,609	41,006	21 ^{6.3} ₁₀₀	
1880...	186,430	46,914	25 ^{1.6} ₁₀₀	
1881...	170,764	54,128	31 ^{6.9} ₁₀₀	
1882	187,339	53,598	28 ^{6.0} ₁₀₀	Spoon dredges and stone-lifters.
	9,429	13,254	\$1.40 ^{6.0} ₁₀₀	Elevator dredges.
	196,768	66,852	33 ^{9.6} ₁₀₀	Totals and average.
1883	36,358	17,956	49 ^{3.8} ₁₀₀	Spoon dredges and stone-lifters.
	6,990	19,385	\$2.77 ^{3.0} ₁₀₀	Elevator dredges-lifting rock and boulders and clearing up.
	43,348	37,341	86 ^{1.4} ₁₀₀	Totals and average.
1884...	125,648	49,468	39 ^{3.7} ₁₀₀	Spoon dredges and stone-lifters.
1885...	69,494	28,563	41 ^{1.0} ₁₀₀	" " "
1886...	57,728	25,772	44	" " "
1887...	36,993	23,259	62	" " "
1888	73,150	36,690	50 ^{1.6} ₁₀₀	" " "
	2,077	1,333	64 ^{1.8} ₁₀₀	Elevator dredges.
	75,227	38,023	50 ^{5.2} ₁₀₀	Totals and average.
1889	205,283	54,574	26 ^{5.8} ₁₀₀	Spoon dredges and stone-lifter.
	9,420	2,996	31 ^{8.0} ₁₀₀	Elevator dredge.
	214,703	57,570	26 ^{8.1} ₁₀₀	Totals and average.
1890...	186,670	53,674	28 ^{6.0} ₁₀₀	Spoon dredges and stone-lifter.
1891	259,267	49,571	19 ^{1.9} ₁₀₀	Spoon dredges.
	43,290	14,232	32 ^{8.7} ₁₀₀	Elevator dredge.
	302,557	63,803	21 ⁸ ₁₀₀	Totals and average.
1892...	361,947	93,595	25 ^{5.8} ₁₀₀	Spoon dredges.
1893...	235,280	93,050	39 ^{5.5} ₁₀₀	" "
1894...	312,430	98,858	31 ^{6.4} ₁₀₀	" "
1895...	496,528	99,400	20 ² ₁₀₀	" "
1896...	401,938	103,317	25 ^{7.0} ₁₀₀	" "
1897...	284,844	68,211	23 ^{9.5} ₁₀₀	" "
1898...	456,458	61,012	13 ^{3.7} ₁₀₀	" "
1899...	963,131	100,163	10 ^{7.7} ₁₀₀	" "
1900...	1,323,871	163,541	12 ^{2.5} ₁₀₀	" "
1901...	1,359,221	190,242	14	" "
1902...	1,179,726	217,986	18 ^{4.8} ₁₀₀	" "
1903...	854,510	226,736	26 ^{5.3} ₁₀₀	" "
1904...	810,723	247,914	30 ^{5.8} ₁₀₀	" "
1905...	324,187	141,059	43 ^{5.1} ₁₀₀	" "
1906...	246,525	113,749	45 ^{9.4} ₁₀₀	" "
1907...	257,321	112,611	43 ^{7.0} ₁₀₀	" "

Interest and depreciation are not included in cost as given here.

Includes depreciation and every expense except interest.

GEO. SMART, Accountant.

SESSIONAL PAPER No. 23.

STATEMENT showing expenditures by the Engineering Dept. for the year ended 31st December, 1907.

EXPENDITURE ON CAPITAL ACCOUNT.

New Steel Sheds, Sections 12 to 18.

P. Lyall & Sons:—

January Estimates, for month of December, 1906.....	\$ 6,106.11	
February " " January, 1907.....	27,939.81	
March " " February, "	28,416.56	
April " " March, "	46,439.95	
May " " April, "	276,842.96	
June " " May, "	63,142.95	
July " " June, "	65,048.89	
August " " July, "	124,888.77	
September " " August, "	74,307.38	
October " " September, "	170,818.17	
November " " October, "	191,622.22	
December " " November, "	147,232.80	
Total paid to Messrs. P. Lyall & Sons.....	\$1,222,806.57	
General Charges during the year, for salaries, filling material and various materials.....	46,797.39	
	<hr/>	\$1,269,603.96
Deduct, scoria blocks provided for paving sheds, used for paving wharves in 1907.....	47,529.00	
	<hr/>	\$1,222,074.96
Add interest on construction expenditure, charged by Secretary Treasurer in 1907.....	55,401.20	
Total Expenditure on sheds in 1907.....		\$1,277,476.16
Elevator Conveyor Equipment.....		40,273.60
Grain Elevator No. 1.....		2,180.00
Harbour Improvements, paving of wharves, dredging, blasting, etc		167,679.37
Harbour Railway, new work and improvements.....		48,098.43
Railway Embankment, Sections 55 to 60.....		14,047.40
Windmill Point Wharf.....		4,199.59
New Concrete Wharf, Sections 35 to 37.....		120,405.19
Spoil Bank, Sections 47 to 60.....		8,109.69
Harbour Dredging, portion charged to deepening	10,530.80	
Ship Channel Dredging, " "	9,643.70	
Dredging Shoal, Sec. 56, 59 " "	12,365.54	
	<hr/>	32,540.04
Laporte Bridge, Victoria Pier.....		8,404.44
Plant Account, new work in 1907.....	30,169.87	
Less written off for depreciation.....	8,450.00	
	<hr/>	21,719.87
Mackay Pier (Guard Pier), filling material.....		69.12
Harbour of Montreal.....		143.37
Dry Dock, drafting plans.....		176.00
Dominion Coal Tracks, Section 36.....		187.64
	<hr/>	
Total Expenditure on Capital Account.....		\$1,745,709.91

EXPENDITURE ON MAINTENANCE ACCOUNT.

Harbour repairs and maintenance of tracks.....	\$124,804.51	
Electric lighting of wharves.....	7,597.68	
Harbour Surveys.....	1,382.97	
Buoys and Beacons.....	388.21	
	<hr/>	
Total Expenditure on Maintenance Account.....		134,173.37
Total Expenditure by Engineering Department in 1907.....		<hr/>
		\$1,879,883.28

GEO. SMART, Accountant.

LIST OF HARBOUR COMMISSIONERS' DREDGING PLANT, 1907.

DESCRIPTION. OF VESSEL.	HULL.			ENGINES.				Depth to which Dredge can work.	Capacity of Bucket.	REMARKS
	Length.	Breadth.	Depth.	When Built.	Kind of Engine.	No. of cylinders.	Dia. of cylinders.	Length of Stroke.	Pres- sure of Steam.	
DREDGES.	Ft. in. over all	Ft. in. Beam.	Ft. in. over all				Inches.	Inches.		
Boom Spoon Dredge No. 2	90.0	36.0	10.3	1892	Horizontal	2	16	18	128	Wooden hull.
" " No. 4	90.0	36.0	10.9	1900	non-condensing	2	16	18	140	Steel hull.
DERRICKS.										
Clam Shell Derrick, No. 1	76.0	27.6	8.0	1899		2	12	14	110	Wooden hull.
" " No. 3	76.0	27.6	8.0	1900		2	12	14	110	" "
" " No. 4	75.0	26.10	7.6	1892	Horizontal non-	2	12	14	110	" "
" " No. 5	75.0	26.10	7.6	1892	condensing.	2	12	14	110	" "
" " No. 6	75.0	26.10	7.6	1892		2	21	14	110	" "
DRILLING AND BLASTING BOAT.	80.0	27.0	5.6	1895					100	Three 5 in. steam drills
Tug Boats.			Hold.							Rebuilt 1903
Tug St. Peter.	74.8	16.1	8.6	1875	Vertical	1	20	22	135	Wooden hull.
" Courier.	36.9	9.3	6.2	1900	non-condensing	1	10	12	125	Composite hull.
" Aberdeen.	79.3	18.3	9.0	1895		1	16	24	125	Steel hull.
" " " "						1	32			" "
" Robt. Mackay.	81.9	17.6	10.0	1899	Vertical	1	16	24	140	" "
" Alphonse Racine.	90.0	18.6	12.1	1905	condensing.	1	32		150	" "
						1	16			" "
						1	32			" "
TESTING BOAT.			Overall	1897	Capacity.					{ Two wooden scows braced 16 ft. apart.
Scows.										All wood.
1 Flat deck Scow No. 17	75.0	20.2	6.0	1876	67½ cubic yds.					" "
1 " " No. 18	75.4	20.4	6.3	1876	67½ " "					" "
1 " " No. 19	75.6	20.3	6.3	1878	67½ " "					" "
1 " " No. 20	75.6	20.3	6.3	1878	67½ " "					" "
2 " " Nos. 21 & 22	85.0	25.0	7.5	1891	150 " "					" "
2 " " Nos. 23 & 24	85.0	25.0	6.9	1891	150 " "					" "
2 " " Nos. 25 to 29	85.0	25.0	6.9	1892	150 " "					" "
5 " " Nos. 31 to 35	85.0	25.0	6.9	1893	150 " "					" "
5 " " Nos. 36 & 37	106.0	26.10	9.6	1899	200 " "					" "
2 Dump Scows No. 38	106.0	26.10	9.6	1900	200 " "					" "
2 Flat Deck " Nos. 39 & 40	85.0	25.0	6.9	1903	150 " "					" "
2 " " Nos. 41 & 42	87.0	25.0	7.6	1904	150 " "					" "

GEO. SMART, Accountant.

APPENDIX 2.

REPORT OF THE QUEBEC HARBOUR COMMISSIONERS FOR THE YEAR ENDING DECEMBER 31, 1907.

To the Honourable,
L. P. BRODEUR, M. P.,
Minister of Marine and Fisheries, etc.,
OTTAWA

Sir;—

In compliance with the requirements of the Quebec Harbour Commissioners Act 1899, I have the honour to report as follows on the doings of the Quebec Harbour Commissioners for the year 1907.

CHIEF ENGINEER'S REPORT.

The annexed report (Marked A) from the Chief Engineer, Mr. St. Geo. Boswell gives information in regard to all matters coming under his care in connection with the Commissioners properties, the various additions and repairs made to them, and the work of strengthening and deepening the Dock Wall under contract with Messrs. M. P. & J. T. Davis.

WHARFINGER'S REPORT.

The annexed report (Marked B) from the Wharfinger, Mr. P. Flynn gives the usual information in regard to the traffic in the Louise Docks during the year 1907.

HARBOUR MASTER'S REPORT.

The annexed report (Marked C.) from the Harbour Master, Mr. J. C. Sullivan, gives information in regard to the opening and closing of navigation, formation of ice etc.

PREMISES LEASED.

Renewals for one year of premises leased have been granted to Messrs. E. M. Lennon & Co., Whitehead & Turner, T. Davidson & Co., Madden & Co., Canadian Import Co., Canadian Pacific Railway Co., Nérée Gilbert, Julien Lapointe, Quebec Coal Co., Jos. Gingras, J. S. Thom and, J. B. E. Letellier. Atkinson's wharf front was rented to Mr. Henri Menier and store No. 6, East India Wharf to Mr. J. J. Murphy.

REPAIRS TO PROPERTIES.

Careful attention has been paid to the various properties of the Commissioners to maintain and bring them up to a first-class condition.

STRENGTHENING AND DEEPENING.

DOCK WALLS.

A supplementary contract for the balance of the work in the Outer Basin, involving an expenditure of about \$200,000.00 has been entered into with Messrs. M. P. & J. T. Davis and good progress with this contract has been made during the year 1907. It is expected that this work will be completed in 1908 and thus the whole of the Dock frontage will be available for the trade of the Port for the season of 1909.

6-7 EDWARD VII., A. 1908.

SECURING CROSS WALL.

This work which the Commissioners carry on by day's work during the winter months is progressing steadily, and it is hoped that it will be completed during the winter of 1908.

GRAVING DOCK ACCOMMODATION.

The Commissioners have continued pressing on the attention of the Dominion Government the necessity of providing increased Graving Dock accommodation in the Harbour of Quebec, capable of meeting the present and future requirement of the St. Lawrence trade.

On this subject the Commissioners have forwarded to the Honourable, the acting Minister of Public Works and the other members of the Federal Government, a resolution urging the immediate construction of such a Graving Dock, and that as it would be national in its character serving the whole shipping trade of the Dominion of Canada, it should be of the largest dimensions with an entrance of 100 feet, which would give the necessary accommodation to Steamships now and in the future using the St. Lawrence.

Since this resolution was forwarded, the Commissioners have kept the urgency of this matter before the Government, and trust to hear of immediate and favourable action being taken.

HARBOUR IMPROVEMENTS.

For the purpose of providing improvements and equipment required in the Harbour, the Commissioners have been authorized by the Act 6-7 Edward VII, Chapter 36 to borrow and issue Bonds for the sum of \$800,000.00.

BREAKWATER EXTENSION.

At the instance of the Commissioners the Dominion Government added 200 feet to their breakwater extension-shed. This addition will allow three of the largest steamers berthing at the breakwater and extension at the same time, and will greatly facilitate the trade of the port. Under letter from Department of Public Works of date Nov. 14th, the Commissioners were appointed as the Department's agent for the management of the breakwater extension and shed.

BY-LAWS.

By-Laws amending the Louise Docks railway regulations, and as to the passage of vessels from and into the Inner Basin were passed on the 11th of July, and forwarded to the Department of Marine and Fisheries for the approval of His Excellency the Governor-General-in-Council.

ELEVATOR AND BRICK BUILDING.

The Grain Elevator and Brick Building on the Embankment, the property of the Quebec Terminal Co., have been purchased from them by the Commissioners.

POLICE PROTECTION AT DOCKS.

The Commissioners are very pleased to note that their urgent representations have been attended to, and that police protection is now supplied at the docks.

SESSIONAL PAPER No. 23.

One of the Commissioners' buildings at the Cross Wall has been fitted up by them as a police station. A detail of constables is now stationed there, thus giving at all times, much needed police protection there, to the shipping and travelling public.

COLD STORAGE PLANT.

The balance of \$20,000.00 to the Quebec Cold Storage Co., on the purchase of their plant and buildings fell due and was paid by the Commissioners on the 1st June last.

ELECTION BY THE SHIPPING INTEREST AND BOARD OF TRADE.

At the meeting held on the 8th of August, a letter was received from the Secretary of the Board of Trade, Quebec, notifying that Mr. Geo. Tanguay, M. P. P., had been re-elected as the Board's representative on the Commission for the ensuing term of three years, and at same meeting notifications of the re-election of Mr. Et. Dussault as the representative of the Board of Trade of Levis and of the election of Messrs Felix Carbray and William M. Dobell, as representatives of the Shipping Interest were received.

CHANGES IN PERSONNEL OF THE COMMISSION.

Mr. Roger LaRue was appointed by the Dominion Government to the vacancy on the Board caused by the death of the late Mr. N. Rioux and Mr. John S. Thom was appointed by the same authority to fill the vacancy caused by the resignation of Mr. Harold Kennedy.

The Commissioners desire here to express their sense of the valuable services rendered to the Board and to the shipping interests of the port by Mr. Kennedy during his long term of office.

DEATHS OF MR. RIOUX AND MR. FELIX CARBRAY

The Commissioners have to record with feelings of the profoundest regret the death during the year of two of their oldest and most esteemed members, the late Mr. N. Rioux who passed away on the 1st January 1907, and the late Mr. Felix Carbray on the 20th of December.

During their long term of office these gentlemen, by their intimate knowledge with all matters connected with the shipping and commercial interests of this Port, had rendered the Commissioners and the Community at large, most valuable services, and their personal characters have endeared them to their colleagues on the Board.

EXPENDITURE ON CAPITAL ACCOUNT.

The expenditure on Capital Account during the year has been \$145,766.93.

Particulars of this expenditure will be found in a statement accompanying this report.

The Commissioners have received advances of \$117,080.75 from the Dominion Government during 1907 in connection with the work of deepening and strengthening the Dock Walls.

REVENUE AND EXPENDITURE.

The revenue of the Commissioners for the year 1907 has been \$106,623.19, an increase of \$5,723.57, over that of 1906, and the expenditure \$87,369.38, leaving a surplus of \$19,253.81 over the working expenses and interest on \$350,000.00 of first preference bonds.

6-7 EDWARD VII., A. 1908

ACTING CHAIRMAN.

During the absence in Europe of the chairman, Mr. J. B. Laliberté, Mr. William M. Macpherson was the presiding officer, having been unanimously elected by the Board as acting chairman.

ICE CUTTING.

During the winter of 1906-07, 80, 925 blocks of ice have been cut for local use.

Care has been taken that all this ice cut for domestic purposes is perfectly pure and taken from localities in the Harbour that have been selected, after an analysis of the ice had been made.

To this report are annexed the various statements conveying the information yearly forwarded to your Department, in connection with the Harbour, as 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.

SESSIONAL PAPER No. 23.

A.

HARBOUR ENGINEER'S OFFICE.

QUEBEC, January 2nd., 1908.

JAMES WOODS, Esq.,
Secretary-Treasurer
Harbour Commission.

Sir,—

I have the honour to submit herewith the following, with reference to the various works in connection with the maintenance and improvement of the Harbour accommodation, carried out by this Department during the past year.

CONTRACT WORK.

The new cribwork Quay Front, to the Louise embankment in the Wet Dock, has been completed, with the exception of a portion of the back filling and some minor work, such as deck planking, mooring posts, fenders, etc. In the Tidal Harbour five substructure cribwork blocks have been sunk in position, along the Embankment Quay Front, making a finished length of foundation in the Tidal Harbour of 810 feet.

Of the above length of 810 feet, 324 feet form part of the contract of July 26th, 1905, and the balance, 486 feet, part of the contract of March 26th, 1907, between the Harbour Commissioners and Messrs M. P. & J. T. Davis.

CROSSWALL STRENGTHENING.

This work was continued during the winter of 1906-07, when 42 tie rods were placed in position, making, with the 14 placed in position the previous winter, a total of 56 rods now completed. It is expected that the balance of these tie rods will be put in place this coming winter.

GENERAL WORK.

In order to restore the Embankment carriage roadway to its original width opposite the Immigration building, which it has been found necessary to do, owing to the increase of vehicular traffic, it has been decided to have the baggage platform now situated thereon, removed; consequently a new and more commodious platform, measuring 300 feet in length by 30 feet in width, has been erected just east of the United States building. The old baggage platform will be removed and the new platform put in use as soon as the necessary railway connections have been completed. A part of these Railway connections has been laid down, but has not been completed, pending the removal of some of the out-buildings connected with the Immigration building.

A railway line running parallel to the main line has been partly completed; this line is required in order to relieve the main line of a part of the freight traffic, and will, when finished, connect with the sidings serving the various freight sheds and berths in the Tidal Harbour and Wet Dock. To make room for this track, the wing of the brick flour store was taken down, and the railway car weigh-house removed to a site south of its former one.

Partial repairs have been made to the Tidal Harbour face of the breakwater, and to the northern cribwork.

Tenders for the timber and deals, required for the work of putting the northern cribwork into a good state of repair, have been called for, so that this work can be undertaken next season.

6-7 EDWARD VII., A. 1908.

The range light at the north east corner of the breakwater has been placed on the new metallic tower, referred to as under construction, in last year's report, the old tower has been removed, and the railway tracks, along the river front of the breakwater and extension connected together.

The Bridge Engineer's dwelling, situated at the north end of Dalhousie street, has been rebuilt and enlarged, and the adjoining store repaired. Customs bond rooms have been placed in the Freight Sheds Nos. 18-19 and 20.

A receiving shed has been erected in connection with the cold store, and a freezing room installed in the main building where the temperature can be maintained at zero.

The store room, on the ground flat of the building No. 10 has been newly floored and is now used as a landing shed for the S. S. Savoy.

A police station has been fitted up in the building at the Southern end of the Cross Wall, known as Fraser's and has been occupied by the City Police since the latter part of June last.

The usual repairs and renewals, required to keep them in good order, have been made to the railway lines, roadways, buildings, and wharves of the Commission.

The Cross Wall draw bridge was operated for the first time, the past season, on the 16th of April, and for the last time on the 6th. of December.

The water was retained in the Wet Dock for the first time on April 27th., and for the last time on December 5th., on which date the gates were allowed to remain open, and were secured for the winter.

I have the honour to be, Sir,

Yours obedient servant,

ST. GEO. BOSWELL,

Chief Engineer.

B.

QUEBEC, January 2nd, 1908.

JAMES WOODS, ESQ.,
Secretary Treasurer,
Quebec Harbour Commissioners,
Quebec.

Dear Sir,—

I have the honour to submit the following with reference to the traffic of the St. Charles Docks and wharves, showing the number of vessels, their registered tonnage, amount and description of cargo landed and shipped from these Docks during season of 1907.

INWARDS—235 Vessels, 1,009,229 tons register.

44,627	tons general cargo.
2,274	" Cement.
5,730	" Salt.
640	" Grain.
3,036	" Molasses
1,250	" Sugar.
1,319	" Earthenware
3,816	" Bricks
117,627	" Coal (Bituminous)
2,888	" Coal (in bags)
734	" Coke.

SESSIONAL PAPER No. 23.

OUTWARDS—67 Vessels, 249,030 tons register.

19,169 tons	general cargo
4,693 "	pulp and paper.
1,822 "	asbestos.
350 "	oil.
11,275 "	P. S. lumber.
3,922 "	P. S. timber.

PROPELLERS AND BARGES.

Landed	21,002 tons	Bituminous Coal.
"	25,632 "	Anthracite Coal.

LOWER PORT STEAMERS.

Landed	523 tons	general cargo.
Shipped	1,493 "	" " "

GRAIN LANDED BY PROPELLERS AND BARGES.

199,572 bushels	corn.
177,884 "	oats.

TIES LANDED BY SCHOONERS AND BATEAUX.

151,430 ties were landed during the season.

VESSELS IN DISTRESS USING THE DOCKS.

S. S. "DEVONA," on passage from Montreal to London was damaged by ice, returned to Quebec and moored in the Louise Basin, discharged a part of her cargo after which she received temporary repairs, reloaded and proceeded to sea.

S.S. "CHS. KNUDSEN" on her last trip down went ashore at the Brandy Pots, had to come back and came into Louise Basin where she received temporary repairs, and then proceeded to New York for a general repair.

During the past season the different, ocean mail steamers landed 14,600 passengers at the Immigration Station, Louise Docks, who were forwarded to their future homes by the different Railway Companies. No record has been kept of Cabin passengers.

There are wintering in the Louise Docks, lumber, coal, railway ties, timber, etc., etc.

During the year, spaces were rented at low rates for storage of coal landed and removed from the water front.

The surface traffic has required the employment of 13,050 cars, being an increase of 4,831 cars over last year.

There are stored in the different freight sheds, salt, cement, etc., etc., which the owners are obliged to remove before the opening of navigation, VIZ:—

450 tons	of Cement.
1,116 "	Coal
732 "	Salt.
358 "	Bricks.
325	Square of lumber.

Dominion Coal Co., have 700 tons coal stored on space rented to them, and the Nova Scotia Steel and Coal Co., 8,000 tons coal on their space.

6-7 EDWARD VII., A. 1908.

The Docks are occupied during the winter by a large number of vessels of various tonnages where they find safe quarters until the opening of navigation.

I have the honour to be Sir,

Your most obedient servant,

P. FLYNN,

Wharfinger.

C.

QUEBEC, January, 2nd, 1908.

JAMES WOODS, Esq.,

Secretary-Treasurer,

Quebec Harbour Commissioners,

Quebec.

Sir,—

I have the honour to submit the following with reference to the harbour, for the year 1907.

Navigation was open in the harbour all winter.

Tugs were working in the Louise Docks up to the 8th December.

Several small sailing craft arrived from lower St. Lawrence on the 2nd or April.

Schooner J. E. W. H. Heppell with passengers etc., arrived from the Lower St. Lawrence on the 4th of April.

Schooners and other sailing craft left for the Lower St. Lawrence on the 7th of April.

S.S. King Edward, first outward steamer with passengers and freight, left the Harbour for the North Shore of the Gulf of St. Lawrence on the 7th of April.

The Ice bridge connecting the Island of Orleans with the North Shore broke up on the 11th of April.

S. S. Druid and S. S. Lord Strathcona came out of the Levis Graving Dock on the 11th of April.

S. S. King Edward, first passenger and freight steamer, from the lower St. Lawrence, arrived in the harbour on the 15th of April.

The ice in the tidal harbour broke up on the 15th of April.

The St. Charles Ice bridge broke up on the 18th of April.

The ice in the Wet Dock broke up on the 22nd of April.

S. S. Savoy, left the harbour for the Island of Anticosti, Gulf St. Lawrence with passengers and freight on the 18th of April and returned on the 23rd of April.

Government tender S. S. Challenger left for Grosse Isle Station on the 24th of April.

S.S. Marine, first ocean steamer with general cargo arrived in the Harbour on the 26th of April.

S.S. Fornebo, first steamer with coal cargo arrived in the harbour on the 1st of May.

The Allan Line S.S. Ionian, first passenger steamer from sea arrived on the 4th of May.

Navigation between Quebec and Montreal was open on the 2nd of May.

All pontoons were placed in the harbour on the 3rd., of May.

First passenger steamer of the Richelieu & Ontario Navigation Company from Montreal S. S. St. Irenée arrived in the harbour on the 4th of May, and made her return trip on the same evening.

The first Royal Mail and passenger steamer, Allan line S. S. Virginian arrived in the harbour with passengers and mails on the 6th of May.

SESSIONAL PAPER No. 23.

First Richelieu & Ontario Navigation Co., S. S. Chicoutimi left the harbour for the Saguenay on the 11th of May and made her return trip on the 13th of May.

During the past season seven warships arrived and anchored in the Harbour viz;—H.M.S. "Good Hope" "Hampshire" "Argyle" "Roxburgh" Italian "Verese" German "Bremen" and American training ship "Cordoral".

No ballast was discharged in the harbour during the past season.

In addition to the routine work of the harbour and the office four hundred and seventy ocean sea-going vessels have been berthed in the Louise Docks, Breakwater and Point-à-Carcy wharves.

This does not include a large number of steam barges schooners etc., etc.

The last passenger steamer of the Richelieu & Ontario Navigation Co., for the Saguenay, S.S. Tadousac with passengers and freight, left on the 16th of November, and returned on the 18th of November.

The last passenger and Mail Steamer S. S. Lake Erie left on the 25th of November for the sea.

Last Richelieu & Ontario Navigation Company S. S. St. Irenée with passengers and freight left the harbour for Montreal on the 27th of November.

Last Steamer S. S. Fritz with coal cargo arrived in the Harbour on the 1st Dec., and left for sea on the 5th of December.

The ice in the Wet Dock formed on the 6th of December.

The last arrival from sea, S.S. Dunelm with cargo, arrived in the harbour on the 9th December and left for Montreal on the 11th December.

The ice in the Tidal Basin formed on the 12th of December.

Up to the 30th December the ice bridge connecting the Island of Orleans and the North Shore had not formed.

Notices have been posted in suitable localities warning parties from discharging rubbish of any kind in the river and every precaution is being taken to prevent any violation of the regulations of the Commissioners in that respect.

I have the honour to be, Sir,

Your obedient servant,

JAS. C. SULLIVAN,

Harbour Master.

6-7 EDWARD VII., A. 1908.

QUEBEC HARBOUR COMMISSIONERS.

EXPENDITURE on capital account during the year 1907.

	\$	cts.	\$	cts.
Office Furniture.....				120.00
Cold Storage Warehouse.....				1,106.47
Deepening and Strengthening Dock Quay Walls				
Contingencies.....		3,275.00		
Cross Wall "Bolting".....		11,643.60		
M. P. and J. T. Davis				
Contract No. 1.....		60,507.32		
Contract No. 2.....		41,178.12		
			116,604.04	
Atkinson's Wharf Store No. 11.....				170.00
St. Charles' Docks.....				2,766.42
Quebec Terminal Co., shareholders, on account purchase of elevator and brick building.....				5,000.00
Shareholders' Cold Storage and Warehouse Company:				
Balance on building and plant.....				20,000.00
			\$	145,766.93

HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, January 2nd, 1908.

JAS. WOODS,
Secretary-Treasurer.

SESSIONAL PAPER No. 23.

QUEBEC HARBOUR COMMISSION.

COMPARATIVE STATEMENT of revenue of the Quebec Harbour Commissioners for the years 1906 and 1907.

	1906		1907		Difference in 1907.	
	\$	cts.	\$	cts.	\$	cts.
Tonnage Dues	12,100.26		11,035.37		1,064.89	Decrease.
Import "	5,803.40		6,124.77		321.37	Increase.
Export "	2,804.23		3,056.46		252.23	"
Harbour "	2,517.06		2,997.60		480.54	"
Earning of Docks, Wharves and Stores.....	71,263.86		73,157.32		1,893.46	"
Cold Storage.....	5,227.58		9,079.71		3,852.13	Increase.
Beach and Deep Water Lots.....	1,161.73		1,149.96		11.77	Decrease.
Sundries.....	21.50		22.00		50	Increase.
	100,899.62		106,623.19		5,723.57	Increase.

HARBOUR COMMISSIONERS' OFFICE,
 QUEBEC, January 2nd, 1908.

JAS. WOODS,
Secretary-Treasurer.

STATEMENT of Revenue and Expenditures for the year ending December 31, 1907.

1907.	Dr.		1907.	Cr.	
Dec. 31	To tonnage dues.....	\$11,035.37	Dec. 31	By Administration and Engineering staff salaries and fees.....	\$12,163.94
	To import dues.....	6,124.77		Legal expenditure.....	575.61
	To export dues.....	3,056.46		Notarial expenditure.....	206.25
	To harbour dues.....	2,997.60		Miscellaneous expenses, printing stationery, Harbour Master, general labour and other expenses.....	5,456.42
	To Property Earnings— St. Charles' docks, wharves and stores under lease.....	59,311.84		Property expenditure, taxes, insurance, repairs and the maintenance of the docks, wharves and stores.....	43,951.26
	Department of the Interior for Immigration grounds.....	13,845.48		Commissioners' dredge, maintenance of dredging.....	327.10
	Cold store and Warehouse No. 1..			Cold storage expenses.....	7,796.78
	Beach and deep water lots.....	73,157.32		Employees' insurance.....	560.00
	Sundries.....	9,079.71		La Banque Nationale "Interest" Beach and deep water lots.....	1,258.02
		1,149.96		Sundries.....	182.25
		22.00		Twelve months' interest to the 1st January, 1908, on \$350,000.00 of Quebec Harbour Bonds.....	16.75
				Six months' interest to the 1st January, 1908, due Quebec Terminal Co. shareholders.....	14,000.00
				Excess of earnings over the working expenses and interest on \$350,000.00 of Quebec Harbour Bonds.....	875.00
					19,253.81
					\$106,623.19

HARBOUR COMMISSION OFFICE,
QUEBEC, January 2, 1908.JAS. WOOD, *Secretary-Treasurer.*

SESSIONAL PAPER No. 23.

BALANCE SHEET OF 31st DECEMBER, 1907.

1907.	Dr.		1907.	Cr.	
Dec. 31	To Office furniture..... Amount at debit of grantees' beach and deep water lots..... Amount at debit "sundries", rents, wharfage, etc..... Unsettled claims against Dominion Government..... Cold storage accounts..... St. Charles docks and wharves... Reynar's wharf..... Wellington's wharf..... East India's wharf..... Grand Trunk's wharf..... Atkinson's wharf..... Cold storage plant..... Elevator and brick building..... Dock walls strengthening and deepening— M. P. & I. T. Davis..... Contract No. 1..... Contract No. 2..... Sundries..... Commissioners' Dredge..... Deck scow..... Pile driver..... Material on hand..... Cash on hand..... Jackscrews' account..... Anchor account..... Tools' account..... Bills Receivable..... Suspense account.....	\$4,332.12 39,217.45 13,894.23 306,256.39 4,722.95 4,102,623.29 9,918.29 86,945.39 48,896.64 15,740.26 55,274.95 26,563.41 40,000.00 330,565.23 10,714.49 2,830.38 527.66 5,476.38 2,781.04 394.87 264.38 5,347.68 770.62 5,899.44 \$5,119,957.54	Dec. 31	By Quebec Harbour Debentures.... Dominion Government strengthening and deepening dock walls Quebec Harbour Bonds..... Capital..... 6 mos. interest..... Quebec Terminal Co..... Capital..... 6 mos. interest..... Receiver General..... La Banque Nationale..... Beach and deep water lots..... Profit and loss.....	\$3,612,802.42 327,940.46 350,000.00 3,000.00 35,000.00 875.00 35,875.00 43,380.00 36,696.36 54,523.73 655,739.57 \$5,119,957.54

HARBOUR COMMISSIONERS' OFFICE

JAS. WOODS, *Secretary-Treasurer.*

QUEBEC, January 2, 1908.

We hereby certify that we have examined the books and vouchers of the Quebec Harbour Commissioners to the 31st December, 1907, and that the balance sheet is correct

J. B. LEBRUN, } *Auditors.*
ALEX. J. MESSERVEY, }

SESSIONAL PAPER No. 23.

Material "on hand".....	5,476.38
Jackscrews.....	394.87
Anchors.....	264.38
Tools.....	5,347.68
Bills Receivable.....	770.62
Suspense account.....	2,688.75
Office furniture.....	4,332.12
	<hr/>
	\$5,119,957.54

MEMO.—The arrears of interest due to the Dominion Government is not included in this statement.
HARBOUR COMMISSIONERS' OFFICE,
QUEBEC, 2nd January, 1908.

We hereby certify that we have examined the statement of assets and liabilities of the Quebec Harbour Commissioners, and we find same in all particulars the true position of the Trust on the 31st December, 1907.

JAS. WOODS,
Secretary-Treasurer.

J. B. LEBRUN,
ALEX. J. MESSERVEY,
Auditors.

6-7 EDWARD VII., A. 1908.

QUEBEC, February, 22nd, 1908.

TO THE CHAIRMAN AND COMMISSIONERS,
Quebec Harbour Commissioners,
Quebec.

Gentlemen,—

We beg most respectfully, to report that we have examined the books and vouchers of the Commissioners for the year ending 1907, and that we have found same correct and in good order.

The Secretary-Treasurer gave us all facilities in making the audit.

We have the honour to be,
Gentlemen,
Your most obedient servants,

J. B. LEBUND,
ALEX. J. MESSERVY,
Auditors.

APPENDIX No. 3.

THREE RIVERS HARBOUR COMMISSIONERS' REPORT FOR THE YEAR
1907.

COMMISSIONERS:

P. A. DROLET, Esq., *Chairman.*

JOS. L. FORTIN, Esq.,

EDMOND DUFRESNE, Esq.,

P. A. GOVIN, Esq.,

F. S. TOURIGNY, Esq.,

GEO. BALCER, *Secretary.*

The most extraordinary and rather unpleasant feature of last year's transaction is, no doubt, the sudden and unexpected falling off in the Ocean traffic of our Port. The volume of trade and the value of *direct* export were reduced to mere trifles, and the number of vessels did not reach by half, the average of arrivals for the last ten or fifteen years. Only 30 steamers with but 56,120 tons, as against the already reduced number of 49 S. S. in 1906; 60 S. S. in 1905 and 106 S. S. in 1903, registered in our port; and not a single vessel arrived in either of the out-ports of Lake St. Peter, nor in Batiscan. Out of this scanty number even more than half carried coal. We have to go back to the seventy's to register such poor result.

Two facts, however, account for, and partly condone this serious falling off in that particular direction.

1. The persistent depression and the low prices prevailing in the Lumber market of Great Britain and, as a fortunate offset, the larger demand and remunerative prices for the same staple in the United States.

2. The unusual high level of the St. Lawrence during the whole season of navigation.

Through the first cause trade merely changed direction; by the second the shipping altered its operation.

With an average of 5 feet over the ordinary level it became possible for steamers to take their full cargo in Montreal, owners taking advantage of this favourable condition in the river. St. Lawrence received from outside, particularly from our section and port, by rail and by barges, part of this freight, instead of as in ordinary times, completing their cargoes at Three Rivers, or at Quebec so that the unusually high water-level, while it materially facilitated transportation was responsible for much of the decrease in the shipping of the port.

At all events, only 8 steamers carrying but 2½ million feet of lumber, left *direct* for Great Britain and one with a little over 100,000 ft. for Cuba. On the other hand some 10 million feet were sent to Montreal or Quebec in bateaux for transshipment, so that actually, about 12½ million feet formed our last year's export to the British market, against 40 and 50 million in former years. Of pulp and paper shipped to the old country no record whatever is kept for our port.

Fortunately the progress of our industries, of our agriculture and other enterprises was only partly affected by those momentary drawbacks. Everywhere, in mills and factories, in fields and forests reign the greatest activity. Foreign capital continues to seek investments. One of the largest cotton factories in the country is in course of construction in our city and will be in operation at the beginning of next season.

6-7 EDWARD VII., A. 1908.

Our import of coal is now nearing 100,000 tons, valued about \$350,000. Sulphur amounts to 7,799 tons and \$280,000; Pig iron, 3,912 tons and about \$65,000. Other material and raw products for our industries continue to come, as usual, in a roundabout way.

While thus our ocean traffic is lingering, traffic with the United States is becoming daily more important. The number of canal boats and steam barges is now not far from a thousand, and *imports* as well as *exports* constantly increase. The latter nearly doubled during the last two years: from \$1,147,000 in 1905, they reached \$1,748,000 in 1906, and \$2,340,000 in 1907. Thus it has more than compensated the difference caused by last year's loss in our export trade to Great Britain.

The quantity of lumber shipped to the United States during last season exceeded 25 million feet valued at about \$450,000. Pulpwood, of which some 88,000 cords left our wharves by boats realized \$800,000; wood pulp \$200,000; paper \$200,000; asbestos \$213,000; aluminum \$167,000.

The season of 1907, with all its drawbacks was after all, a fairly prosperous one for this port.

Three Rivers, February 29th, 1907.

GEORGES BALCER,
Secretary.

STATEMENT of number and tonnage of steamers entered inward and outward of the port and outports of Three Rivers, for the year 1907.

OCEAN TRAFFIC.

Return of Vessels Inward.	No.	Tons.	Return of Vessels Outward.	No.	Tons.
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PORT OF THREE RIVERS.

Nationality.	No.	Tons.	Cleared for, via.	No.	Tons.
British.....	11	20,780	Inland Ports.....	21	38,145
Norwegian.....	16	30,761	British Ports.....	8	16,147
Swedish.....	1	1,081	Cuba.....	1	1,828
Danish.....	2	3,497			
	30	56,120		30	56,120

UNITED STATES TRAFFIC.

	No.	Tons.
Port of Three Rivers, United States steam barges.....	35	23,282
“ “ canal Boats.....	835	83,447
Outports of Three Rivers, United States canal boats.....	120	11,250
	990	117,979

INLAND TRAFFIC.

Bateaux not registered.....	67	
Schooners and barges.....	147	21,680
Tugs and steamboats.....	150	20,562
	364	42,242

SESSIONAL PAPER No. 23.

RECAPITULATION.

Ocean traffic	30	56,120
United States traffic	990	117,979
Local traffic.....	364	42,242
Grand Total.....	1,384	216,261

Exclusive of Richelieu & Ontario Navigation Co.'s Steamers, Local Craft and Market Boats.

Harbour Commissioner's Office,
Three Rivers.

GEORGE BALGER,
Secretary-Treasurer.

HARBOUR COMMISSIONER'S OF THREE RIVERS
RECEIPTS AND DISBURSEMENTS FOR THE YEAR 1907.

RECEIPTS.		DISBURSEMENTS.	
COMMISSIONERS' OFFICE.		ADMINISTRATION.	
Tonnage dues.....	\$724.07	Current expenses.....	\$497.90
Harbour dues inwards.....	161.02	Salaries & commissions.....	3,334.35
" outwards.....	521.32	Rent.....	240.00
Commutation.....	1,303.32	Printing and stationery.....	79.70
Rent of wharf and moorage.....	392.75	Refunds.....	38.46
	<u>\$3,102.16</u>		<u>\$4,190.41</u>
Custom House.		Repairs and general harbour expenses...	1,258.76
Tonnage dues.....	\$3,297.41	Interest on debentures.....	9,395.95
Harbour dues inwards.....	6,829.54	Sinking funds.....	1,895.95
" outwards.....	3,200.44		
Moorage.....	483.42	Total expenses on revenue.....	<u>\$16,740.12</u>
	<u>\$13,810.81</u>		
Total collections.....	\$16,912.97	DISBURSEMENTS ON CAPITAL.	
Proceeds from:		Construction: Paumeton-corporation property	1,417.65
Material supplied.....	\$546.92	Deposit in bank December 31, 1907.....	\$6,111.35
Debentures sold and in hand.....	2,500.92	Cash and collection.....	2,988.26
Deposit in bank and cash, January 1st,			
1907.....	8,413.13	Claim on debentures.....	9,099.61
	<u>11,460.05</u>		<u>1,115.64</u>
	<u>\$28,373.02</u>		<u>\$28,373.02</u>

HARBOUR COMMISSIONERS OFFICE:
January 16th, 1908.

GEORGE BALCER,
Secretary-Treasurer.

APPENDIX No. 4.

RÉPORT OF THE HARBOUR COMMISSIONERS OF BELLEVILLE FOR
THE YEAR ENDING DECEMBER 31, 1907.

BELLEVILLE, 31st, December 1907.

TO THE HONOURABLE,
THE MINISTER OF MARINE AND FISHERIES,
Ottawa, Canada.

Sir,—
The undersigned Harbour Master of the City of Belleville begs to submit the following Report for the year 1907.

Navigation opened in Belleville Harbour on April 11th and closed December 2nd.

Import dues on 640,750 ft. Lumber.....	\$	32.08
" 451,000 Lath.....		11.27
" 18,370 Tons Coal.....		1,837.00
" 1,512 Tons Mchdse.....		151.20
" 297 Tons Clay.		178.2
Total.....	\$	2 049.37
Disbursements.....		23.45
	\$	2,025.92
Export Dues on 962½ Tons Mchdse.....		96.22
" 1,019 Tons Cheese.....		101.87
" 2,052 Bushels Grain.....		2.58
" 24,699 Logs and Cedars.....		148.67
" 95,000 ft. of Lumber.....		4.75
" 29½ Tons of Iron.....		2.92
" 100,000 Shingles.....		3.00
		360.01

There was a slight increase in imports and a drop in exports. Our saw logs are done on the River Moira. We hope coal and other things will fetch it up to the standard.

Dues collected during the season are as follows:—

Total amount from imports.....	\$	2,049.37
" exports		360.01
		2,409.38
Disbursements.....		23.45
Total.....	\$	2,385.93

All of which is respectfully submitted,

I have the honour to be, Sir,

Your obedient servant,

SYD. VANDERWOOD,

Harbour Master.

APPENDIX No. 5.

REPORT OF THE HARBOUR COMMISSIONERS OF NORTH SYDNEY,
C.B., FOR THE YEAR ENDING DECEMBER 31, 1907.

NORTH SYDNEY, C.B., February 6, 1908.

COL. F. GOURDEAU,
Deputy Minister Marine and Fisheries.
Ottawa,

Sir,—

The Harbour Commissioners beg to hand you herewith enclosed statement of receipts and expenditures for the year ending Dec. 31st, 1907, also list of shipping that entered at the Ports of the Sydneys during 1907, and quantity of coal shipped.

Your obedient servant,

WM. HACKETT,
Secretary.

NORTH SYDNEY, C. B., January 30, 1908.

Coal Shipments:

	Tons.
Dominion Coal Co., Ltd., from their pier, Sydney.....	1,399,275
Nova Scotia Steel Co., Ltd., North Sydney.....	353,236
Iron Ore received.....	126,820

WM. HACKETT,
Secretary.

List of shipping registered tonnage and number of men carried arriving at the ports of the Sydneys during 1907, from 1st January until 31st December.

This includes all British and foreign steamers from foreign ports all British and foreign steamers engaged in the coal and coastwise trades and sailing vessels of all descriptions including Canadian, and all foreign vessels, total vessels 1728 having a tonnage of 1,209,646, carrying crews of 55,787 men.

	No.	Tonnage.
Ocean Steamers.....	755	1,111,249
Coastwise Steamers.....	214	61,447
Barks.....	6	4,194
Barkentines.....	10	1,875
Brigantines.....	10	1,470
Schooners.....	742	36,950
		<hr/>
		1,209,646

WM. HACKETT,
Secretary.

SESSIONAL PAPER No. 23.

HARBOUR COMMISSIONERS' Statement of Receipts and Expenditures for the year ending
December 31, 1907.

1907.	Receipts.	1907.	Expenditures.
Jan. 1	Amount on hand.....\$1,515.38	Feb. 27	P. J. McDonald.....\$66.66
May 31	Received harbour dues ... 416.40	" 27	Joseph Shean..... 100.00
June 30	" " 553.90	Mar. 9	L. Annesty, truckage..... 25
July 31	" " 720.09	Apr. 27	Paid acct. Bertram property 209.40
Aug. 31	" " 558.12	May 1	M. W. Lawlor..... 200.00
Sept. 30	" " 447.75	" 11	Telegram......38
Oct. 31	" " 307.57	" 28	P. J. McDonald..... 100.00
Nov. 30	" " 417.17	" 31	Acct. Bertram property... 304.45
Dec. 31	" " 243.13	June 3	J. J. Dooley..... 22.95
		" 3	P. J. McDonald..... 10.00
		July 2	Acct. Bertram property... 314.15
		" 13	No. Sydney Herald printing 4.50
		Aug. 3	Paid labour per Hr. master's order..... 19.00
		" 29	P. J. McDonald..... 100.00
		" 31	Labour per Harbour Master's order..... 32.00
		Sept. 7	Labour per Harbour Master's order..... 14.25
		" 7	Acct. Bertram property... 330.60
		" 7	M. W. Lawlor..... 230.00
		Oct. 22	P. J. McDonald..... 10.00
		Nov. 12	Acct. Bertram property... 320.95
		Dec. 21	M. W. Lawlor..... 70.00
		" 21	Labor breakwater..... 30.00
		" 21	P. J. McDonald..... 213.34
		" 31	Joseph McPherson..... 183.20
		" 31	Joseph Shean..... 500.00
		" 31	Wm. Hackett..... 600.00
		" 31	Rent..... 75.00
			Amount on hand..... 1,118.43
	<u>\$5,179.51</u>		<u>\$5,179.51</u>
	Amount on hand.....\$1,118.43		

P. J. McDONALD,
M. W. LAWLOR,
WM. HACKETT,
Harbour Commissioners.

NORTH SYDNEY, C.B.,
February 1st., 1908.

APPENDIX No. 6.

TORONTO HARBOUR.

SECRETARY OF THE HARBOUR TRUST IN ACCOUNT WITH THE COMMISSIONERS
FOR THE YEAR ENDING 31st DECEMBER, 1907.

GENERAL BALANCE SHEET.

Wharf Property.....	\$43,073.72	Balance to Cr. of Profit & Loss	\$66,897 77
Office Furniture.....	537.88		
Can. Per. Bonds.....	14,000.00		
Cash in Bank.....	9,266.69		
Cash on hand.....	19.48		
	<hr/>		<hr/>
	\$66,897.77		\$66,897 77

We have examined the Books and Vouchers and have compared the Balance Sheet with the said Books and Vouchers, and we certify the same to be correct and to represent a true statement of the affairs of the Trust at this date, Dec. 31st, 1907.

F. S. SPENCE,
Chairman

J. T. MATHEWS,
Vice-Chairman

W. H. PEARSON,
T. L. CHURCH, ALD.,
P. B. WHYTOCK,

S. BRUCE HARMAN,
SIDNEY H. JONES,
Auditors.

*Harbour
Commissioners
for the year 1907.*

COLIN W. POSTLEWAITE,
Harbour Master.

Toronto Jan. 4th, 1908.

PROFIT AND LOSS.

DR.			CR.
Dredging.....	\$ 3,659 95	Balance from Ledger.....	\$ 63,483 84
Salaries.....	2,540 00	Canadian Pacific Railway.....	4,000 00
Office Expenses and Rent.....	876 32	Harbour Dues.....	7,030 98
General Repairs.....	750 31	Interest on Bonds.....	557 20
Charges, Commissioners' Fees, etc.	300 00	Interest on Deposits.....	216 50
Solicitor's Fees.....	92 62		
Furniture Account, written off....	50 00		
Printing and Stationery.....	46 85		
Deputation to Ottawa.....	25 00		
Removing Wreck.....	25 00		
Inspecting Harbour.....	10 00		
Lights, Buoys, and Beacons.....	9 70		
Insurance on Furniture.....	5 00		
Balance to Credit, Profit & Loss...	66,897 77		
	<hr/>		<hr/>
	\$ 75,288 52		\$ 75,288 52

Audited and found correct.

S. BRUCE HARMAN,
SYDNEY H. JONES,

Auditors.

SESSIONAL PAPER No. 23.

RECEIPTS AND EXPENDITURE.

RECEIPTS.		EXPENDITURE.	
Cash in Bank, Jan. 1st, 1907.....	\$ 5,906 00	Dredging.....	\$ 3,650 95
Cash in Hand, Jan. 1st, 1907.....	11 24	Salaries.....	2,540 00
Harbour Dues.....	7,030 98	Offices Expenses and Rent.....	886 32
Canadian Pacific Railway Co.....	4,000 00	General Repairs.....	750 31
Interest on Bonds.....	557 20	Charges, Commissioners' fees, etc.....	300 00
Interest on Deposits.....	216 50	Lights, Buoys and Beacons.....	109 70
City Allowance for Buoys.....	100 00	"Underwood" Typewriter.....	95 00
Sale of old Typewriter.....	10 00	Solicitors' Fees.....	92 62
		Printing and Stationery.....	46 85
		Deputation to Ottawa.....	25 00
		Removing Wreck.....	25 00
		Inspection of Harbour.....	10 00
		Insurance on Furniture.....	5 00
		Cash in Bank.....	9,266 69
		Cash in Hand.....	19 48
	<u>\$ 17,831 92</u>		<u>\$ 17,831 92</u>

Audited and found correct.

S. BRUCE HARMAN,
SYDNEY H. JONES,

Auditors.

COMPARATIVE STATEMENT.

GOODS ARRIVED AT THE PORT OF TORONTO DURING THE YEAR 1907.

DESCRIPTION OF GOODS.	1906	1907
General Merchandise.....	tons 48,138	59,945
Coal.....	" 162,502	155,915
Lake Stone.....	toise 3,157	4,530
Fruit.....	bbls. 576	4,545
".....	crates 45,530	32,769
".....	baskets 244,924	202,581
".....	bags 523	271
Ice.....	tons 6,317	5,823
Bricks.....	7,741	30,000
Grain.....	bushels 14,700	8,200
Horses, Carriages and Cattle.....	254	188
Lumber.....	feet B. M. 917,000	
Oil in bulk.....	bbls 15,694	68,317

FIFTY-SEVENTH ANNUAL REPORT.

To the Commissioners of the Harbour of Toronto—

GENTLEMEN:

I have the honour to submit my report for the year 1907.

The Harbour was clear of ice on the 28th March, having been frozen over for 69 days, or 13 days less than during the winter of 1905-6. This winter has so far been a mild one and the harbour is still free of ice.

The first vessel to arrive with cargoes was the "Macassa," on the first of April; Captain Henderson, to whom the historical "Harbour Master's Hat" was given.

The last arrival was the SS. "Canadian," Captain Hagan, with a cargo of pig iron from Port Arthur on the 15th Dec.

The number of vessels arriving at this port during the season was 3661, or 255 more than for 1906. Below is a comparative statement of arrivals and tonnage. viz:

	1906	1907	In-crease.	De-crease.	Tonnage.	
Propellers, loaded,	457	565	108		1906	1907
Propellers, light...	31	—		31	203,878 Tons.	242,953 Tons.
Steam, loaded....	2,513	2,614	101		1,267,304 "	1,349,979 "
Steam, light.....	2	1		1		
Sailing, loaded....	395	472	77		53,641 "	47,442 "
Sailing, light.....	8	9	1			
	3,406	3,661	287	32	1,524,827 Tons.	1,640,374 Tons.

The year commenced with a cash balance of \$5,917.24. The receipts for the year amount to \$11,914.68, making a total of \$17,831.92. The expenses for the year amount to \$8,645.75, leaving a balance in cash of \$9,286.17, an increase of \$3,368.93.

The Coal receipts for the year are as follows, viz.: Anthracite Coal, 115,299 tons, Bituminous Coal, 40,616 tons, in all 155,915 tons or 6,587 tons less than last year, the shortage being occasioned by the difficulty vessels met with in obtaining cargoes at the American lake ports.

The total quantity of coal imported into Toronto by rail and vessel as per Government Returns, is as follows, viz.: Anthracite Coal, 643,862 tons; Bituminous Coal, 659,093 tons, in all 1,302, 955 tons.

The highest water for the year was 26½ inches above zero on June 11th. The lowest water was 7½ inches above zero, on Jan. 1st. The average for the year is 18½ inches above zero, or 5½ inches higher than in 1906.

Dredging was done by Contractor Mr. Frank Simpson at about the same prices as last year, at the Western Channel and at several of the wharves of the city. In all 14,255 cubic yards of material were removed at a cost of \$3,659.95, or about 5000 cubic yards less than last year.

The Light-houses were lighted at the Queen's Wharf for the first time in the season on April 1st, and were discontinued on the 14th Dec.

The Harbour Buoys were placed out on March 27, and taken up for the winter on Dec. 7.

Captain Hall, who was appointed Deputy Harbour Master in October, 1896, and who had given faithful service to the Commissioners for eleven years, died, after a protracted illness, on the 12th of April. The vacancy was filled by the appointment of Mr. John M. Allan on the 28th June, who had been for several years in the employ of the Harbour Commissioners as check clerk and Inspector on the dredge

SESSIONAL PAPER No. 23.

while at work in the harbour. I am pleased to be able to state that the appointment has been satisfactory in all respects.

Alderman T. L. Church accompanied the City Council to interview the Government at Ottawa as representative of the Harbour Trust, on Feb. 12. The object of the deputation was to urge upon the Government the necessity of deepening the Western Channel, instituting a Life-saving Station in this harbour, and of making other improvements of which Toronto Harbour stood in need.

Upon the recommendation of the Engineer, Mr. C. H. Rust, some repairs have been done to the premises at the Queen's Wharf, which being chiefly of wood had begun to show signs of decay. The work has been done under the inspection of the Deputy Harbour Master and the Engineer, chiefly by day labour and considerable progress has been made. It remains for the west end of the wharf to be renewed in concrete, which is a necessary undertaking in the spring.—

The government proposes to construct a new channel at the western entrance, somewhat south of the present one, where water of greater depth can be obtained for navigation without having to remove rock, as would be the case were the present channel deepened sufficiently to admit of vessels drawing 18 or 20 feet of water, and the Government Engineer has taken soundings and measurements with this object.

There are 8 vessels wintering in the harbour this season, viz.: 12 Passengers Steamers, 11 Propellers, 12 Sailing Craft, 7 Steam Tugs, 6 Steam Yachts, 10 Ferry Steamers, 30 Sailing Yachts, and 6 Dredges with their scows, in all about 21,949 tons Register.

Mr. J. G. Sing, C.E., Government Engineer in Charge, reports as follows under date January 8th, 1908, viz.: Dredging operations have been carried on during the past year in the Eastern Channel and the approaches thereto, and a depth in the channel between the piers, of 19 feet, and a depth of 20 feet in the approaches, has been provided. The approach to the channel from the lake is bell-mouthed, being 1000 feet wide at the outer end, narrowing down to the width of the channel between the piers, viz., 400 feet.

"A large staff of men is at present engaged in stripping the northerly 1,400 feet of the easterly pier, Eastern Channel, with the view of concreting the same during the coming season.

"Plans and specifications for the proposed new Western Channel have been prepared and forwarded to the Department at Ottawa. The new channel will be constructed to the southward of the present channel and will be 400 feet wide, having concrete piers on each side and providing a depth of not less than 18 feet. Tenders will probably be called for shortly."

Mr. R. F. Stupart, Director, Meteorological Observatory, Toronto, reports as follows under date Jan. 9th, 1908, viz.: "The display of storm signals for the season was resumed in April and continued until, and inclusive of the 9th Dec., 1907. During this period 27 gales occurred on the lakes, against 21 in the preceding season.

Although the same number of gales occurred during October and November as in 1906, namely, ten, the gales this present Autumn were not, as a rule, of great intensity, nor were they attended by any degree of cold or snow.

"Wrecks and casualties to vessels were remarkable for their absence, and, no doubt, the Meteorological Service was a factor in effecting this satisfactory state of affairs, judging from the frequent enquiries by telephone and telegraph received from Mariners from the different lake ports as to the weather out-look, together with the display of storm signals in advance of gales."

The precipitation for the year was as follows, viz.: Rain, 25.56 inches; Snow, reduced to water, 5.20; in all 30.76 inches, being a quarter of an inch less than for 1906.

I am, Gentlemen, Your Obedient Servant.

COLIN WM. POSTLETHWAITE,

Harbour Master.

COMPARATIVE STATEMENT.

RECEIPTS AND EXPENDITURES FOR THE YEARS 1905-1906-1907.

RECEIPTS.			
	1905	1906	1907
C. P. Railway Co.....	\$ 4,000 00	\$ 4,000 00	\$ 4,000 00
Harbour Dues.....	7,369 97	6,888 96	7,030 96
Interest on Bonds.....	557 20	557 20	557 20
Interest on Deposits.....	70 15	145 50	216 50
Water Works Department.....	100 00	100 00	100 00
	<u>\$12,097 32</u>	<u>\$11,691 66</u>	<u>\$11,904 66</u>
EXPENDITURE.			
	1905	1906	1907
Solicitors' Fees.....	\$ 10 00	\$ 122 00	\$ 92 62
Deputation to Ottawa.....	.....	25 00	25 00
Fire Insurance.....	.....	17 50	5 00
Commissioners' and Auditors' Fees.....	580 00	300 00	300 00
Lights, Buoys and Beacons.....	141 50	324 91	109 70
General Repairs.....	260 45	2,302 32	750 31
Printing and Stationery.....	39 05	62 20	46 85
Dredging.....	5,573 86	4,753 61	3,659 95
Office Expenses and Rent.....	594 03	596 35	886 32
Salaries.....	2,539 92	2,540 00	2,540 00
	<u>\$ 9,738 81</u>	<u>\$11,043 89</u>	<u>\$ 8,415 75</u>

SESSIONAL PAPER No. 23.

APPENDIX No. 7.

REPORT OF THE HARBOUR COMMISSIONERS OF THE TOWN OF
PICTOU, N. S., FOR THE YEAR ENDING 31st DECEMBER 1907.

PICTOU, NOVA SCOTIA,
January 13, 1908.

F. GOURDEAU, Esq.,
Deputy Minister of Marine & Fisheries,
Ottawa.

DEAR SIR,—

I beg to enclose, herewith account of Pictou Harbour Commissioners for the year 1907, and also Collector of Customs Statement of "Harbour Dues" account.

Your obedient servant,
HENRY G. IVES,
*Secretary Pictou Harbour
Commissioners.*

PICTOU, N. S., December 31st, 1907.

PICTOU HARBOUR COMMISSIONERS, in account with Henry G. Ives, Secretary.

February 21..	To	Commissioners' Expenses.....	\$	10 00	
May 1..	"	Barry Bros., account for poles.....		4 00	
May 15..	"	Bushing Channel to East River.....		12 00	
May 16..	"	Repairs to Buoy.....		5 00	
May 17..	"	Painting Buoys.....		5 00	
May 18..	"	Taking Soundings East River.....		8 00	
June 11..	"	Repairs Public Wharf, Pictou.....		17 20	
June 29..	"	Bushing West River.....		8 00	
August 6..	"	Joseph Graham, Deputy Harbour Master.....		25 00	
November 14..	"	Bushing East River.....		26 50	
November 28..	"	Taking in Harbour Buoys.....		35 00	
December 5..	"	Balance Bushing Channel to East River (Contract)...		6 00	
December 13..	"	Putting Out Harbour Buoys.....		30 00	
December 10..	"	Secretary's Salary.....		100 00	
December 31..	"	Balance in Bank of Nova Scotia.....		854 09	
					\$ 1,145 79
1907					
January 1..	By	Balance per Account.....	\$	830 28	
December 31..	"	Deposited by Collector of Customs.....		315 51	
					\$1,145 79
					\$ 1,145 79
1908					
January 1..	By	Balance in Bank of Nova Scotia.....			\$ 854 09

HENRY G. IVES,
Secretary.

6-7 EDWARD VII., A. 1908.

Pictou, N. S., 4th January 1908.

Statement of "Harbour Dues" account, for Port of Pictou, N. S., for the year ending 31st, December, A. D. 1907.

Balance in Bank of Nova Scotia, 31 December, 1907.....	\$		\$ 125 00
Harbour Dues Collected for Year ending 31 December, 1907.....			615 51
Total.....			<u>\$ 740 51</u>

Disbursements.

Paid Salary of Harbour Master for Year 1907.....	\$300 00	
Placed to Credit of Harbour Commissioners.....	515 51	
Balance in Bank of Nova Scotia, December 31st, 1907.....	125 00	
	\$ 740 51	\$ 740 51

Pictou, N. S., 4th January, 1908.

R. P. FRASER,
Collector of Customs.

SESSIONAL PAPER No. 23.

APPENDIX No. 8.

REPORT OF THE PORT WARDEN AT HALIFAX, N.S., FOR THE YEAR
ENDING DECEMBER 31, 1907.

HALIFAX, N.S., January 1, 1908

F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR:—

I have the honour to submit my report for the six months ended June 30th, 1907, accompanied by a statement of the receipts and expenditure during that period.

Surveys have been held on sixteen steamers and six sailing vessels which arrived at this port in a damaged condition during the half year. The necessary repairs have been made to the vessels and those of them bound to other ports with their cargoes proceeded to their destinations where all of them have arrived safely.

The United States schooner "Edwin R. Hunt," referred to in my report of the 31st December last as having sailed from this port on 21st November bound to Philadelphia, Pa., with a cargo of plaster rock, and not having arrived at her destination at time of writing was blown off the coast, and after drifting about the West Indies for some considerable time finally reached her port of destination and delivered her cargo safely.

There were no shipments of Live Stock at this port during the past six months.

I have the honour to be, Sir,

Your obedient servant,

DAVID HUNTER,
Port Warden.

N. B.—See also report of Capt. Neil Hall, appointed by O. I. C., 10th July, 1907.

RECEIPTS AND EXPENDITURE OF THE PORT WARDEN, HALIFAX, N.S., FROM 31st
JANUARY TO 30th JUNE.

Dr.		Cr.	
To amount of fees received.	\$ 1,526 25	By paid Assistants, office expenses, etc.	\$ 983 27
		By amount reverting to Port Warden.	542 98
	\$ 1,526 25		\$ 1,526 25

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 six months ended June 30th 1907.

DAVID HUNTER,
Port Warden.

F. GOURDEAU, Esq.,

Deputy Minister of Marine and Fisheries,
Ottawa,

Sir:—

I have the honor to submit my report from the 23rd. July (the date of entering on the duties of the office) to December 31st., 1907, accompanied by a statement of the receipts and expenditures during that period.

Surveys have been held on six steamers and seven sailing vessels, which arrived at this port in a damaged condition. The necessary repairs were made to the vessels, and those of them bound to other ports with their cargoes proceeded to their destination, where they arrived safely.

The Italian barque "Affezione" of Terre del Greco, from Weymouth, N.-S., bound to Buenos Ayres with a cargo of lumber, put into this port on November 12th. The cargo has been discharged, and the vessel is still in port awaiting instructions from the owners in regard to the necessary repairs.

I have the honor to be, Sir,

Your most obedient servant,

NEIL HALL,
Port Warden.

RECEIPTS AND EXPENDITURES OF THE PORT WARDEN, AT HALIFAX, N.S.,
from JULY 23rd., to DECEMBER 31st., 1907.

To amount received as fees	\$ 1,141 45	\$ 1,141 45
<i>Contra</i>		
By paid Assistants, Office Expenses, etc.....	550 05	
By Amount reverting to Port Warden.....	591 40	
		\$ 1,141 45

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., from July 23rd., to December 31st, 1907.

NEIL HALL,
Port Warden.

APPENDIX No. 9.

REPORT OF THE PORT WARDEN AT VICTORIA, B.C., FOR THE YEAR
ENDING DECEMBER 31, 1906.

VICTORIA, B. C., January 4th, 1907.

The Deputy Minister of Marine and Fisheries,
Ottawa.

SIR:—

I have the honour of submitting my report as Port Warden for the Ports of Victoria and Esquimalt, B. C., for the year ending on the 31st of December, 1907.

Amount of Fees received for surveys on the hatches of 29 Vessels.	\$145 00
Amount received for surveys on cargoes, etc.....	361 00
Total amount of Fees received.....	<u>\$506 00</u>

I have the honour to be, Sir,

Your obedient servant,

CHAS. E. CLARKE,

Port Warden.

APPENDIX No. 10.

REPORT OF THE PORT WARDEN OF NANAIMO, B.C., FOR THE YEAR
ENDING DECEMBER 31, 1907.

NANAIMO, B.C., January 2nd, 1908.

COL. GOURDEAU, Esq.,
Deputy Minister of Marine, and Fisheries,
Ottawa.

SIR:—

I have the honour to submit my annual report as Port Warden, for the Port of Nanaimo and Departure Bay.

Amount collected during the year 1907 for surveys on vessels was twenty-nine dollars and Fifty cents (\$29.50)

I am, Sir,

Your obedient servant,

J. S. KNARSTON,

Port Warden.

APPENDIX No. 11.

REPORT OF THE PORT WARDEN AT PICTOU, N.S., FOR THE YEAR
ENDING DECEMBER 31, 1907.

PICTOU, N.S., January 2, 1908.

F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit my annual report for the year ending December 31, 1907.

S. S. <i>Begland</i> , hatches, May 27th.....	\$ 8.00
S. S. <i>Unique</i> , hatches, June 6th.....	8.00
S. S. <i>Norward</i> , seaworthy, June 11th.....	8.00
Schooner <i>Regina B.</i> , seaworthy, July 29th.....	8.00
S. S. <i>Beatrice</i> , seaworthy, December 13th....	16.00
	<hr/>
	\$ 48.00

Expenses, etc., \$10 00

W. C. MUNROE,
Port Warden.

APPENDIX No. 12.

REPORT OF THE PORT WARDEN AT PORT HAWKESBURY, N.S. FOR
THE YEAR ENDING DECEMBER 31, 1907.

PORT HAWKESBURY, January 4, 1908

F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

I have the honour to submit my annual report of the doings of this office with a statement of fees collected by me and also the attendant expenses during the year ending 31st Dec. 1907.

4 Surveys on Schooner <i>Nicanco</i>	\$ 56 00	
2 " " <i>Annie D.</i>	15 00	
2 " <i>Barque Royal</i>	15 00	
4 " Schooner <i>Elva M.</i>	38 00	
2 " <i>Steamer Sea Bird</i>	28 00	
	<hr/>	\$ 152 00
Paid William Duff, shipwright'.....	30 00	
" J. J. Hennesey, master mariner.....	5 00	
" W. H. Paint, Loyds' agent.....	20 00	
" Capt. H. Hebb, insurance agent.....	10 00	
" Capt. Dickson, insurance agent.....	5 00	
" Nicholas Martin, shipwright.....	10 00	
	<hr/>	80 00
Balance reverting to Port Warden.....		72 00
		<hr/>
		\$ 152 00

I hereby certify the above is correct as to the amount collected by me as Port Warden at this port sworn to before me,

William Duff, J. P.

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

D. W. HENESEY.

SESSIONAL PAPER No. 23.

APPENDIX No. 13.

REPORT OF THE PORT WARDEN FOR PRINCE EDWARD ISLAND FOR
THE YEAR ENDING DECEMBER 31, 1907.

PORT WARDEN'S OFFICE, P.E. ISLAND, December 31, 1907

SIR;—

I have the honor to submit my Annual Report of the business of my office during the past year.

I wish to call the attention of the Department that a large trade is carried on in the shipment of potatoes from the Island to foreign and Dominion Ports, and in these cases none of the vessels is provided with shifting boards, and these vessels often put in to ports with cargoes shifted, and damaging the cargo seriously endangering the lives of those on board.

I would therefore respectfully suggest that those vessels should be provided with shifting boards.

I have the honour to be, Sir.

Your obedient servant,

H. P. WELSH,

COL. GOURDEAU,

Department of Marine and Fisheries,
Ottawa.

RECEIPTS AND EXPENDITURES.

Date.	Receipts.	Amount.	Date.	Expenditure.	Amount.
1907	To fees derived from:		1907	By expense of office.....	\$ 3 50
	Grain Laden Vessels.....	\$ 25 00		Com. to Deputies.....	10 00
	Survey on Hatches.....	3 00		Balance.....	29 50
	Other Surveys.....	15 00			
		\$ 43 00			\$ 43 00

D. P. WELSH,

Port Warden.

Charlottetown, P. E. Island,
December 31st, 1907.

APPENDIX 14.

REPORT OF THE PORT WARDEN AT NORTH SYDNEY, N.S., FOR THE
YEAR ENDING DECEMBER 31, 1907,

NORTH SYDNEY, N.S., Dec. 30th, 1907.

LIEUT.-COL. F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR;—I have the honour to send you my annual report for the year 1907.

Vessels surveyed 1907:

2	Surveys, Schooner <i>Thelma</i>	\$ 16 00
2	" Schooner <i>Edith</i>	16 00
2	" Schooner <i>Jenny May</i>	16 00
1	" <i>Minnie T.</i>	8 00
1	" S. S. <i>Beatrice</i>	8 00
2	" Schooner <i>M. J. Taylor</i>	16 00
2	" <i>Bonny Brier Bush</i>	16 00
2	" <i>Argosy</i>	16 00
3	" <i>Barque Guldnegor</i>	24 00
2	" Schooner <i>Jenny Myrtle</i>	16 00
3	" <i>Brig. Francis Rene</i>	24 00
2	" Schooner <i>Omega</i>	16 00
2	" Schooner <i>J. H. Ernest</i>	16 00
2	" Schooner <i>Manetto</i>	16 00
2	" Schooner <i>Bessie Jennex</i>	16 00
2	" Schooner <i>Lena</i>	16 00
Survey and certificate, S. S. <i>Agnes</i>		10 00
" S. S. <i>Poro</i>		10 00
" <i>Dora</i>		10 00
" <i>Falco</i>		10 00

\$ 296 00

W. H. KELLY, *Port Warden*.

APPENDIX 15.

PORT WARDEN'S REPORT FOR CHATHAM, N. B., FOR 1907.

CHATHAM, N.B., Jan. 14th, 1908.

LIEUT.-COL. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR;—I have the honour to forward you my report for the year 1907.

At the request of Capt. James W. Phipps, Master of the schooner *Rothesay* of Weymouth, N.S., 280 tons, loaded with sulphur from New York. Robt. J. Walls, Harbor Master and shipwright, Capt. Alex. McLean Master Mariner, and I proceeded on board said schooner lying at the Dominion Pulp Co.'s Wharf, opposite Chatham, for the purpose of holding a survey. Capt. Phipps informed us that he had been caught in gale on the 8th October.

We found mainsail, foresail, staysail, and jib wholly destroyed, main boom and gaff broken, three blocks lost, traveller of forestaysail broken, futlock shrouds on foremast broken, main, fore, jib and stay sail sheets carried away, main peak halyards badly chafed, seven mast hoops broken.

We also found said vessel had been strained about the deck and waterways, and deck and waterways considerably chafed.

We recommended that the sails destroyed and spars broken be replaced with new ones, and the other damages made good and the decks be caulked.

On examination we found the vessel not leaking.

Dues \$10.00.

GEORGE L. TAIT, *Port Warden*.

SESSIONAL PAPER No. 23.

APPENDIX 16.

REPORT OF THE PORT WARDEN AT YARMOUTH, N.S., FOR THE YEAR
ENDING DECEMBER 31, 1907.

YARMOUTH, N.S., January 2, 1908.

To the Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I now make my report as Port Warden at Yarmouth, N.S., for the year ending December 31, 1907.

I have been called on seventeen times to hold surveys on steamers and schooners, damaged by collision and by getting ashore.

Steamer <i>Orinoco</i> , on Seal Island ledge	CONDEMNED.
Schooner <i>Hattie D.</i> , on Chelogue Point	CONDEMNED.
All of the others were repaired at Yarmouth.	

Gross Amount.....		\$ 475 50
Paid out for Assistance.....	245 50	245 50
Net Amount.....	\$ 229 50	

I have the honour to remain

Your obedient servant,

Jan. 2nd, 1908.

EBEN SCOTT,
Port Warden.

On this second day of January, A.D. 1908, before me, the undersigned, personally came and appeared Ebenezer Scott above named and made oath that the above accounts or reports to which he has subscribed his name are correct and true.

EDGAR N. CLEMENTS,

Notary Public.

Yarmouth, N.S.

APPENDIX 17.

REPORT OF THE PORT WARDEN AT MONTREAL FOR THE YEAR
ENDING DECEMBER 31, 1907.

MONTREAL, January 16, 1908.

Honourable L. P. BRODEUR,
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 Wardens Office, 45 Vic., Chap. 45, to transmit herewith documents as follows:—

1. Port Warden's Annual Report for the year 1907.
2. Audited statement of Receipts and Expenditure of the Port Warden Office for the year ending December 31st, 1907.
3. Statement of investments of Port Warden Surplus Funds.

I have the honour to be, Sir,

Your obedient servant,

GEO. HADRILL,
Secretary.

MONTREAL, 23rd December, 1907.

To the President and Council
of the Board of Trade.
Montreal.

GENTLEMEN:—

I have the honor to submit the Annual Report of the business of the Port Warden's Office with the statements of exports, receipts and expenditure for the year 1907.

The opening of navigation was somewhat late owing to the accumulation of ice at Cap Rouge, which did not move out until the morning of the second of May, when the Steamers "Marina" and "Hibernian" left Quebec, arriving at this port the same evening.

The first vessel to enter the Gulf of St. Lawrence by the Straits of Belle Isle this season was the S. S. "Pelican" from Great Britain, to be engaged in the trade on the Great Lakes; she passed through the Straits on 19th June, reporting very little ice.

On 13th May, at 7 p. m., the longshoremen, taking advantage of the accumulation of vessels in the port, went out on strike and remained out eight days, returning to work on 21st May. The result of the strike, at this time was a congested condition of the wharves from which it took some time to recover.

This fall has been unusually mild and open, very little snow, and ice on the river very late in forming; the season has the record for the latest arrival of a vessel from sea, viz, the S. S. "Dunelm" from Middlesboro, Eng., with a cargo of pig iron, which arrived on 13th December at 4.30 p. m.

The last ocean vessel to leave the port this season was the Elder Dempster & Co's S. S. "Andoni," which sailed hence at daylight on 29th November.

SESSIONAL PAPER No. 23.

The non-arrival of any foreign going sailing vessels in the port this season is remarkable, but the molasses and sugar cargoes inward and the lumber for the River Plate and elsewhere, of which they were the carriers in the past, is now entirely monopolized by steamships.

The depth of water in the ship channel between this port and Batiscan this season has been unusually high, and no difficulty has been experienced by any vessel loading at this port for lack of water, as all were able to load to the full draft desired; the lowest depth recorded in the ship channel during the season was 30' 8" on 21s September.

The only mishap on the St. Lawrence between Quebec and this port, to record this season, was the stranding of the Canadian Pacific Railway Co's S. S. "Montreal," which ran aground in Lake St. Peter on the night of the 29th October, striking the cribwork or concrete base of Light House Tower with her port bow and sustaining considerable damage; she had to be taken to the Dry Dock at Quebec for repairs.

There were 378 over sea or foreign going steamships (no sailing vessels) reported at this office with a tonnage of 1,348,552 tons, against 396 vessels and 1,361,418 tons last season, a decrease of 18 vessels and 12,866 tons.

The business to the lower ports this season consisted of: entered 321 vessels of all classes with a tonnage of 531,189 tons, against 376 vessels of 590,935 tons last year, a decrease of 55 vessels and 59,746 tons. Clearances of vessels loaded for the lower ports this season consisted of 93 vessels of all classes with a tonnage of 61,350 tons, against 101 vessels of 62,967 tons last season, a decrease of 8 vessels and 1,617 tons.

While in comparison with last year there has been an increase in the export of grain, flour and apples from this port, there has been a general decrease in other articles.

The total importation of coal via the St. Lawrence River this season was 1,555,504 tons, as compared with 1,665,454 tons last year, a decrease of 99,950 tons; this shortage was due to the ice blockade on the Cape Breton coast, which prevented vessels from getting in or out of the coal ports.

The shipments of various kinds for the past season manifested and reported at this office are as per attached statement.

All of which is respectfully submitted.

ARCHIBALD REID,
Port Warden of the Harbour of Montreal.

6-7 EDWARD VII., A. 1908.

COMPARATIVE Statement of Shipments, 1906 and 1907, as per manifests reported at the Port Warden's Office.

Description.	1906.	1907.	1907.	
			Increase.	Decrease.
Wheat.....Bush.	14,530,617	21,267,639	6,737,022	
Buckwheat....."	108,583	48,528		60,055
Peas....."	144,547	172,878	28,331	
Barley....."	913,634	817,790		95,844
Rye....."	134,314	128,403		5,911
Oats....."	3,112,624	3,854,599	741,975	
Corn....."	4,465,268	4,748,967	283,699	
Flaxseed....."	2,939,442	1,391,785		1,547,657
Total.....	26,349,029	32,430,589	7,791,027 1,709,467	1,709,467
Total increase for the year 1907.....			6,081,560	
Flour and meal.....Bbbs.	830,220	1,002,868	172,648	
Ashes....."	536	430		106
Apples....."	380,472	593,317	212,845	
Cheese.....Boxes	2,223,944	1,961,069		262,875
Butter.....Pkgs.	356,065	66,873		289,192
Eggs....."	66,439	28,173		38,266
Box meats....."	297,563	274,074		23,489
Lard....."	475,128	436,283		38,845
Pulp.....Tons	9,175	3,814		5,361
Paper....."	14,443	14,317		126
Sundries....."	55,850	49,903		5,947
Hay....."	35,451	7,255		28,196
Oil cake....."	18,803	17,950		853
Minerals....."	10,815	14,937	4,122	
Lumber.....Ft.B.M.	141,673,081	111,819,895		29,853,186
Cattle.....Head	128,233	96,759		31,474
Horses....."	642	188		454
Sheep....."	11,096	11,384	288	
Dead meats.....Qrtrs.		1,635	1,635	

STATEMENT of Oversea or Foreign-going Vessels.

Description.	1906.		1907.	
	No.	Tons.	No.	Tons.
Steamers.....	394	1,360,279	378	1,348,552
Barques.....	2	1,139		
Brigs and schooners.....				
	396	1,361,418	378	1,348,552

Decrease of 18 vessels and 12,866 tons.

SESSIONAL PAPER No. 23.

STATEMENT of Lower Port Arrivals.

Description.	1906.		1907.	
	No.	Tons.	No.	Tons.
Steamers.....	356	588,620	296	528,486
Brigs and schooners.....	20	2,315	25	2,703
	376	590,935	321	531,189

Decrease of 55 vessels and 59,746 tons.

CLEARANCES for Lower Ports.

Description.	1906.		1907.	
	No.	Tons.	No.	Tons.
Steamers.....	82	60,790	74	59,315
Brigs and schooners.....	19	2,177	19	2,035
	101	62,967	93	61,350

Decrease of 8 vessels and 1,617 tons.

Revenue, 1906.....	\$11,679.33
" 1907.....	10,303.04
Decrease.....	\$ 1,376.29

SESSIONAL PAPER No. 23.

STATEMENT of the Investments of the Surplus Funds of the Port Warden's Office at Montreal, and for interest accruing therefrom for the year ended December 31, 1907.

Date.		Amount.	Per cent for 12 months.	Interest.
Feb. 16, 1880..	Expended \$2,380.34 in purchase of Dominion Government Stock.....	\$ 2,300 00	3½	\$ 80 50
Aug. 16, 1880..	Expended \$7,284.11 in purchase of City of Montreal Registered Stock.....	7,000 00	5	350 00
Feb. 18, 1884..	Expended \$5,031.34 in purchase of City of Montreal Registered Stock (Coupons Bond Nos. 1720, 1721, 1722, 1723, and 1724 for \$1,000 each).....	5,000 00	4	200 00
March 14, 1887	Expended \$10,320.75 in purchase of City of Montreal Consolidated Fund Stock	10,000 00	4	400 00
Jan. 6 1906 ..	Expended \$10,000.00 in purchase of Montreal Harbour Bonds.....	10,000 00	4	400 00
Jan. 23, 1907..	Expended \$4,000.00 in purchase of Montreal Harbour Bonds.....	4,000 00	4%, 164 days.	71 70
	Loans to Montreal Board of Trade Building Fund.....	70,000 00	4%, 12 months	2,800 00
	Total Investments.....	\$ 108,300 00	Total..	\$ 4,302 20

C. B. ESDAILE,
Treasurer Montreal Board of Trade.

GEO. HADRILL,
Secretary Montreal Board of Trade.

MONTREAL, January 6, 1908.

APPENDIX 18.

REPORT OF THE PORT WARDEN AT QUEBEC FOR THE YEAR ENDING
DECEMBER 31, 1907.

PORT WARDEN'S OFFICE, QUEBEC, Dec., 1907.

F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR;—

As requested by the 30th Section of the Port Warden rules, I beg respectfully to submit the following annual statement of the business transacted in this office during the year ending the 31st December, 1907, as follows: thirty steamers were surveyed for clearance outward after taking part cargo on board at this Port having previously shipped part cargo of grain and other goods at Montreal. Twenty-eight steamers were surveyed, their hatches opened and cargos examined, on their arrival from sea.

Four steamers and one barge were surveyed on account of collision damages.

Four steamers and one barge were surveyed on account of grounding and stranding in the River St. Lawrence below and above Quebec.

Two steamers were surveyed and their value estimated for general average purpose. Five surveys were held on damaged goods in stores and on wharves.

The receipts and disbursements of this office were as follows.

Receipts from all sources.....	\$ 646 50
Expenses.....	421 50
Balance Net Receipts.....	\$ 225 00

Besides the above, there were several vessels damaged by stranding and otherwise that did not come under the Port Warden Rules.

One steamer took live stock at Quebec during the season, amounting in all to 516 cattle, on which, if fees had been collected as in former years, would have amounted to \$7.74, as shown by accompanying statement.

With much respect,

I am your obedient servant,

W. SIMONS,
Naval Architect,
Port Warden.

Quebec, December, 1907.

QUEBEC, December, 1907.

Return of cattle shipped at the Port of Quebec during the season of 1907, with the name of steamer and amount of fees, if collected as in former years.

Year.	Name of Vessel.	Number of Cattle.	Amount for Cattle.
1907			
July 27.....	S. S. <i>Devona</i>	516	\$ 7 74
		516	\$ 7 74

Quebec, December, 1907.

W. SIMONS,
Port Warden,
Acting Inspector of live stock and fittings.

SESSIONAL PAPER No. 23.

APPENDIX 19.

REPORT OF THE PORT WARDEN AT VANCOUVER, B.C., FOR THE YEAR
ENDING DECEMBER 31, 1907.

VANCOUVER, B.C., January 14th, 1908.

COL. F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR:—

I have the honour of submitting to you my annual report as Port Warden of the Port of Vancouver, B. C., for the year ending 31st December, 1907.

Amount of fees received for surveys of hatches and cargoes.....\$594.00

I have the honour to be, Sir,

Your obedient servant,

MALCOLM McLEOD,

Port Warden.

APPENDIX 20.

REPORT OF THE PORT WARDEN AT SYDNEY, N.S., FOR THE YEAR
ENDING DECEMBER 31, 1907.

SYDNEY, N.S., January 18, 1908.

F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

Sir,—Herewith, I beg to hand you annual report of port warden's record of shipping at International Pier, N.S., for the year ending December 31, 1906.

All of which is respectfully submitted.

Your obedient servant,

NELSON H. TOWNSEND,

Port Warden.

Date.		Vessel's Name.	Master's Name.	Register Tonnage.	Cargo.
1907					
June	3..S.S.	Memnon.....	Purdon.....	2,046	General.....
"	3..	Bangor.....	Brown.....	2,201	Deals.....
"	4..	Nile.....	Brown.....	1,265	".....
"	10..	Glenmount.....	Muir.....	1,246	Sheet rails.....
"	11..	Bangore Head.....	Finley.....	1,619	Timber.....
"	12..	W. Gothard.....	Gorthop.....	1,790	Deals.....
"	15..	Irene.....	Smith.....	1,070	".....
"	21..	Shicklestad.....	Anelsen.....	1,116	".....
"	22..	Chicklase.....	Harrison.....	1,547	".....
"	24..	Valring.....	Wilhelmsen.....	1,366	Grain and General..
"		St. Andrews.....	Naven.....	1,893	Pulp wood.....
"	27..	Egremont Castle.....	Moodie.....	1,834	Phosphate rock and grain.....
"	28..	Beneta.....	Drean.....	1,839	Deals.....
"	30..	Stormont.....	Fraser.....	1,230	Sheet rails.....
July	2..	Prob.....	Hird.....	1,593	Deals.....
"	3..	Jokoto.....	Ommanney.....	1,969	General.....
"	5..	Canada Cape.....	Symons.....	2,794	General.....
"	8..	Almeriana.....	Hanks.....	1,824	Deals.....
"	16..	Montana.....	Morgan.....	2,611	Railroad sleepers.....
"	25..	Monarch.....	Clare.....	4,776	General.....
"	28..	Glenmount.....	Muir.....	1,246	Sheet rails.....
"	29..	Bangor.....	Brown.....	2,201	Deals.....
August	5..	Yoruba.....	Davies.....	1,913	Lumber.....
"	11..	Stormount.....	McMaster.....	1,230	Steel rails.....
"	12..	Emanuel.....	Pohlsson.....	1,081	Deals.....
"	19..	Tapton.....	Traubs.....	2,300	Hard pine.....
"	29..	Atlanta.....	Burroughs.....	2,186	General.....
"	31..	Hollinside.....	Williams.....	1,713	Deals.....
Sept.	3..	Andoni.....	Hempson.....	2,034	Railroad ties.....
"	5..	Troutpool.....	Goldsworthy.....	2,110	Deals.....
"	7..	Glenmount.....	Muir.....	1,246	Steel rails.....
"	9..	Chatton.....	Leish.....	2,321	Timber.....
"	13..	Dahomey.....	Dutton.....	1,826	Lumber.....
"	16..	Lord Iveagh.....	Hempden.....	2,136	Deals.....
"	17..	Stormount.....	McMaster.....	1,231	Steel rails.....
"	27..	Bangor.....	Brown.....	2,201	Deals.....
Oct.	7..	Marietta de Georgia.....	Johnson.....	623	Deals.....
"	9..	Raven.....	Olsen.....	795	Pitch.....
"	12..	Regina.....	Madden.....	1,280	Steel rails.....
"	13..	Monarch.....	Clare.....	4,776	General.....
"	15..	Adansi.....	O'Toole.....	1,643	Deals.....
"		Memnon.....	Purdon.....	2,046	Steel rails.....
"	22..	Bergenhus.....	Kahrs.....	2,344	Grain and lumber..
"	26..	Parkwood.....	Butcher.....	1,102	Deals.....
"	27..	Montana.....	Edwards.....	2,612	Lumber.....
"		Ulabrand.....	Krishiansea.....	1,269	Pitch.....
"	28..	Hirundo.....	Lovensen.....	1,343	Lumber.....
"	29..	Nancy Lee.....	Murchie.....	1,802	Pulp.....
"	30..	Dahomey.....	Murphy.....	1,825	General and lumber
Dec.	3..	Montenegro.....	Owens.....	2,856	General.....
"	12..	Yoruba.....	Davies.....	1,913	Coal.....
Totals.....				948 33	Tons.....

I certify that the above is a true and correct record of the shipping at the Port of International

SESSIONAL PAPER No. 23.

		DRAFT.						
Place from.	Place to.	Forward.		Aft.		Free Board.		Amount.
		ft.	in.	ft.	in.	ft.	in.	
Montreal, Que.....	Cape Town, S. A.....	17	3	23	6	10	1½	\$ 8 00
Chatham, N. B.....	Belfast, Ireland.....	21	10	22	4	6	7	8 00
Campbellton, N. B.....	Barry Docks, Eng.....	17	8	17	10	3	9	8 00
Sydney, N. S.....	Quebec, Que.....	18	8	19	9	4	1	8 00
Quebec, Que.....	Plymouth, Eng.....	20	10	22	5	7	6½	8 00
Pugwash, N. S.....	Manchester, Eng.....	20	0	20	9	3	10½	8 00
Matane, Que.....	Bristol, Eng.....	17	8			Mean draft		8 00
Campbellton, N. B.....	Brow Head, Eng.....	18	2			Mean draft		8 00
Gaspe, Que.....	Belfast, Ire.....	18	6	20	6	4	0	8 00
Montreal, Que.....	Hamburg, Germany....	21	0			Mean draft		8 00
Chatham, N. B.....	Portland, U. S. A.....	18	5			Mean draft		8 00
Fernandina, Fla.	Shettin, Germany.....	23	1	23	1	9	1	8 00
St. Catherines, Que....	Glasgow, Scotland.....	20	1	20	1	4	0	8 00
Sydney, N. S.....	Quebec, Que.....	18	8	19	9	4	1	8 00
Newcastle, N. B.....	Manchester, Eng.....	19	6	20	5	3	0	8 00
Gaspe, Que.....	Nassau, B. I.....	18	8	21	2	6	6½	8 00
Montreal, Que.....	Cape Town, S. A.....	21	6	23	6	8	8	8 00
St. John, N. B.....	Manchester, Eng.....	21	4	22	11	7	8	8 00
Port Daniels, Que.....	Vera Cruz, Mo.....	18	6	21	0	10	3	8 00
Montreal, Que.....	Cape Town, S. A.....	26	5	26	10	7	11½	8 00
Sydney, N. S.....	Quebec, Que.....	18	8	19	9	4	1	8 00
Newcastle, N. B.....	Manchester, Eng.....	22	3	22	5	9	5	8 00
Campbellton, N. B.....	Buenos Ayres, Arg.....	17	2	19	7	9	10½	8 00
Sydney, N. S.....	Quebec, Que.....	18	8	19	9	4	1	8 00
English Bay, Que.....	Great Yarmouth, Eng..			Mean draft		16	11	8 00
Pensacola, Fla.....	Leith, Scotland.....	22	8½	22	8½	5	0	8 00
Montreal, Que.....	Cape Town, S. A.....	21	0	21	0	8	0	8 00
Pugwash, N. S.....	Kinale, Eng.....	19	6	20	8	8	0	8 00
Bonaventure, Que.....	Jampico, Mo.....	19	6	19	6	7	2	8 00
New Mills, N. B.....	Brow Head, Eng.....	21	6	21	6	3	8	8 00
Sydney, N. S.....	Quebec, Que.....	19	9	18	8	4	1	8 00
Pensacola, Fla.....	Barrow-in-Furness, Eng.	21	8	23	7	5	0½	8 00
Barrachois, Que.....	Cape Frances, Cuba ..	20	10	20	7	7	3	8 00
Newcastle, N. B.....	Liverpool, Eng.....	11	0	22	0	6	9½	8 00
Sydney, N. S.....	Quebec, Que.....	18	6	19	6	4	1	8 00
Newcastle, N. B.....	Dublin and Belfast, Ire.	20	10	20	10	10	11	8 00
Campbellton, N.B.....	White Haven, Eng.....	15	0½			Mean draft		8 00
Sydney, N. S.....	New York, U, S. A.....	16	0	16	10	2	7	8 00
Sydney, N.S.....	Quebec, Que.....	13	9	154	8	8	8	8 00
Montreal, Que.....	Cape Town, S. A.....	25	1	22	7	9	9	8 00
Campbellton, N. B.....	Buenos Ayres, Arg.....	20	2½	19	1½	2	5	8 00
Sydney, N. S.....	Quebec, Que.....	23	4½	24	0½	6	8½	8 00
Quebec, Que.....	London, Eng.....	21	2	23	3	5	5½	8 00
Chatham, N. B.....	Brow Head, Eng.....	14	9	16	10	4	8	8 00
Rimouski, Que.....	Buenos Ayres, Arg.....	21	3	23	8	7	8	8 00
Sydney, N. S.....	Antwerp, Belgium.....	18	9			Mean draft		8 00
Dalhousie, N. B.....	Rosario.....	19	6			Mean draft		8 00
Chicoutimi, Que.....	Manchester, Eng.....	19	5	20	4	5	5	8 00
Gaspe, Que.....	Nassau Baha Id.....	18	0	20	0	9	0	8 00
Montreal, Que.....	Cape Town, S. A.....	23	0½	23	0½	6	1	8 00
Sydney, N. S.....	Mexico, Mo.....	23	0	22	2	6	3½	8 00
								\$408 00

Pier, Sydney, N. S., for the year ending the 31st day of December, 1907.

NELSON H. TOWNSEND,
Port Warden.

APPENDIX 21.

REPORT OF THE PORT WARDEN AT ST. ANDREWS, N.B., FOR THE
YEAR ENDING DECEMBER 31, 1907.

To LIEUT.-COL. GOURDEAU,

Deputy Minister of Marine and Fisheries,

SIR;—

I have the honour to submit my annual report for the year ending 31 Dec. 1907.

March 18—To survey on hatches, 3-mast Sch. <i>Greta</i>	\$2.50
To survey on vessel's hull, with certificate.....	8.00
To assistance	5.00
March 25—To 2nd survey on Vessel's hull, with Certificate.....	5.00
To assistance	3.00
March 27—To survey on hatches, Sch. <i>Sam Slick</i>	2.50
	<hr/>
	\$26.00

The Sch. *Greta* parted her cables and drifted on to Minister's Island bar and strained considerably. I ordered that the vessel be re-caulked.

All dues collected for the year 1907.

JOHN WREN,

Port Warden.

St. Andrews, N. B., Jan. 24th, 1908.

APPENDIX 22.

REPORT OF THE PORT WARDEN AT WESTPORT, N.S., FOR THE YEAR
ENDING DECEMBER 31, 1907.

MARCH 19th, 1908.

COL. F. GOURDEAU,

Deputy Minister of Marine and Fisheries,

Ottawa,

SIR;—

I now make my report as Port Warden for Westport, N.S., for the year ended Dec. 31st, 1907. I was not called upon during the year consequently I had nothing to do. The S. S. Westport III, ran ashore coming in from St. John, N.B. Damage amounted to about \$15.00.

I remain your obedient servant,

GEO. WELSH,

Port Warden.

SESSIONAL PAPER No. 23.

APPENDIX 23.

REPORT OF THE PILOTAGE DISTRICT OF MONTREAL FOR THE YEAR
ENDING DECEMBER 31, 1907.

21st December, 1907.

The Deputy Minister of Marine and Fisheries,
Ottawa.

REPORT ON MONTREAL PILOTAGE.

Sir,—

I have the honour to present a report of the working of the Montreal Pilotage for the year 1907

The offices in Montreal are situated on the water front at No. 223 Commissioners street. Captain James J. Riley is the superintendent; Mr. Omer Michaud is the assistant; Mr. Louis Pinoteau is the messenger.

The offices in Quebec are on Dalhousie street, opposite the Quebec Pilot's office and the Boatman's landing. Mr. Ulric Thibaudeau is the officer in charge.

At the close of the year 1906, the number of Branch Pilots on the roll for active service was fifty (50). On the 11th of January, 1907, Mr. Narcisse Perrault having reached the age of seventy (70) was superannuated, and on the 1st of April, 1907, Mr. J. Delavoie Frenette was promoted in his stead.

On the 11th of January, 1907, Mr. Joseph Edouard Pleau was dismissed for inebriety, and on the 20th of April, 1907, Mr. Fortunat Hamelin was promoted in his stead.

On the 1st of May, 1907, Mr. Nestor Arcand was found to be physically unfit for duty, and was placed on the pension list, and on the 3rd of July, 1907, Mr. Cyriac Gauthier was promoted in his stead, so that the number of Branch Pilots in active service has been maintained at fifty (50), and so remains at this date.

■ The amount earned by the Branch Pilots during the year 1907 was seventy-three thousand, eight hundred and sixty dollars and fifty-five cents (\$73,860.55) (see Appendix 3) which shows the names of the Branch Pilots, their age, place of residence, date of branch, number of pilotages during the season to Montreal and intermediate ports, total number of trips, earnings on Montreal trips and on trips to intermediate ports, total amount of earnings and how employed—that is to say, whether on Special Service or Tour-de-Rôle.

The largest amount earned during 1907 by any one Branch Pilot was twenty-eight hundred and fifty-three dollars and twelve cents (\$2,850.12), and the smallest was two hundred and thirty-five dollars and seven cents (\$235.07).

The number of Branch Pilots on special service at the close of the season was thirty-nine (39) and on Tour-de-Rôle, eleven (11). The amount earned by the thirty-nine (39) Special Service men was sixty-eight thousand, five hundred and thirty-six dollars and ninety-two cents (\$68,536.92), and by the eleven (11) Tour-de-Rôle men, five thousand, three hundred and twenty-three dollars and sixty-five cents (\$5,323.65), an average of one thousand, eight hundred and ninety-three dollars and eighty-six cents (\$1,893.86) for Special Service Pilots, and of four hundred and eighty-three dollars and ninety-seven cents (\$483.97) for Tour-de-Rôle Pilots.

The standard of conduct on the part of the Pilots has been good and well maintained. Mr. Joseph Edouard Pleau was dismissed for inebriety, and Mr. Constant Toupin lost the work of the "Elder Dempster Co." for the same reason.

There have not been any charges of inefficiency against the Pilots, except in the case of Mr. C. Lyderic Bouillé, who was found in default for the stranding of S.S. "Montreal" of the C. P. R. Line, in Lake St. Peter, and who was mulcted in the sum of seventy-five dollars, to be paid in three (3) equal instalments.

(Appendix 2) shows the names of the ten (10) selected Apprentice Pilots, and a summary of their work on ocean vessels during the season 1907. Mr. J. B. Angers, who is No. 1 on this list, was passed during the year 1906, and Mr. D. J. Perrault, who is No. 2 on the list, was passed by a Board of Examiners convened for that purpose during this present month. These two men are to continue on the roll of Selected Apprentices until they are branched.

(Appendix 3) shows the full number of Apprentices in the order of their seniority.

(Appendix 4) shows the names of the persons who are receiving pensions from the Pilots' Superannuation Fund, and the amounts they each get every three months. There have been three names added to this list since the date of my last year's report.

The Pilots' Superannuation Fund is in the custody and under the administration of the Finance Department in Ottawa; this office serves as a disbursing agency only and renders an accounting for all monies received.

(Appendix 5) shows the number of vessels reported at this office, their total tonnage, number of masters and crews, and the number of inward passengers.

(Appendix 6) shows the changes that have been made in the By-laws of the Pilotage District of Montreal under authority of the Department, dated December 18th, 1907.

All respectfully submitted by your obedient servant,

JAMES J. RILEY,

Superintendent of Pilots.

SESSIONAL PAPER No. 23.

APPENDIX 1.

MONTREAL PILOTAGE OFFICE.

SELECTED APPRENTICE PILOTS FOR AND ABOVE THE HARBOUR OF QUEBEC.

Summary of the work of the ten Selected Apprentice Pilots for and above the Harbour of Quebec, showing the number of trips made with Branch Pilots on Ocean Steamers during the year 1907.

1. J. B. Angers, 2 trips. (Passed last year.)
2. D. J. Perrault, 3 trips. (Passed December 6th, 1907.)
3. F. X. Rivard, 14 trips. (Off duty, sick since July.)
4. Joseph Mayrand, 38 trips.
5. Napoléon Lachance, 51 trips.
6. Henri Bouillé, 44 trips.
7. Théode Perron, 38 trips.
8. Bona Dussault, all season on steamer "Imperial," by permission.
9. J. Arthur Arcand, all season on steamer "Vercheres," by permission.
10. Jules Brière, 44 trips.

APPENDIX 2.

Full list of Montreal Apprentice Pilots for and above the Harbour of Quebec, with particulars regarding them.

No.	Name of Apprentice.	Age.	Residence.	Date of License.
1	Angers, J. B.....	27	Ste. Anne de la Pérade, Que....	August 16, 1899.
2	Perrault, David J.....	27	Deschambault, P. Q.....	August 16, 1899.
3	Rivard, F. X.....	27	Grondines, P. Q.....	August 16, 1899.
4	Mayrand, Joseph.....	26	Lachevretière, P. Q.....	August 16, 1899.
5	Lachance, Napoléon.....	24	442 King St., Quebec.....	December 4, 1900.
6	Bouillé, Henri.....	23	Deschambault, P. Q.....	December 4, 1900.
7	Perron, Théode.....	24	Deschambault, P. Q.....	December 4, 1900.
8	Dussault, Bona.....	26	St. Marc des Carrières.....	December 4, 1900.
9	Arcand, Jos. Arthur.....	24	Champlain, P. Q.....	December 4, 1900.
10	Brière, Jules.....	21	Portneuf, P. Q.....	December 30, '03.
11	deVillers, Napoléon.....	21	Lotbinière, P. Q.....	December 30, '02.
12	Marchand, Armand.....	20	Three-Rivers, P. Q.....	December 30, '03.
13	Gosselin, Achille.....	22	Deschambault, P. Q.....	December 30, '03.
14	Paquette, Donat.....	23	Grondines, P. Q.....	December 30, '03.
15	Lacroix, Edmond.....	21	Contracœur, P. Q.....	December 30, '03.
16	Houde, Thomas.....	22	St. Antoine, de Tilly, Que....	December 30, '03.
17	Marchand, Cyprien.....	21	1563 St. André St., Montreal...	December 30, '03.
18	Lacouture, Ludovic.....	25	St. Ours, P. Q.....	December 30, '03.
19	Naud, Emilien.....	21	Deschambault, P. Q.....	December 30, '03.
20	Perrault, Jos. Etienne.....	29	Deschambault, P. Q.....	November 1, 1906.
21	Perron, Oscar.....	19	Deschambault, P. Q.....	Waiting certificate
22	deVillers, Jos. Edmond.....	19	St. Louis de Lotbinière.....	Waiting certificate

JAMES J. RILEY,

Superintendent of Pilots.

MONTREAL, December 17th, 1907.

APPENDIX 3.—BRANCH PILOTS FOR AND

STATEMENT showing the number of Branch Pilots, for and above the Harbour of Quebec, during Special Service

No.	Name of Pilot.	Age.	Residence.	Date of Branch.	Remarks.
1	Naud, Onésime....	66	Deschambault, Que...	Mar. 16, '70...	
2	Beaudet, Prudent...	67	36 Ste. Famille, Que...	Oct. 10, '70...	
3	Brunet, Célestin....	64	112 Desery St., Mont..	Feb. 28, '72...	
4	Groleau, Ulric.....	60	Grondines, P. Q.....	Oct. 30, '72...	
5	Auger, Cléophas....	61	Pointe Lévis, P. Q....	Sept. 22, '74...	Member of Committee
6	Labranche, Ferdin'd	60	Portneuf, P. Q.....	April 8, '75...	
7	Bouillé, Louis, Z. . .	58	Deschambault, P. Q....	Jan. 16, '78...	Secretary Committee.
8	Gauthier, Laurent...	56	Deschambault, P. Q....	Dec. 10, '79...	
9	Nault, Delavoie....	54	Deschambault, P. Q....	Dec. 10, '79...	
10	Gauthier, Wilbrod..	54	Deschambault, P. Q....	Dec. 10, '79...	President Committee.
11	Dufresne, Georges...	58	Deschambault, P. Q....	Dec. 10, '80...	
12	Arcand, Norbert....	54	Champlain, P. Q.....	Dec. 10, '80...	Member of Committee
13	Bouillé, Tancrede....	53	Deschambault, P. Q....	Dec. 10, '80...	
14	Dussault, Joseph, G.	51	Dechambault, P. Q....	Feb. 20, '84...	
15	Raymond, Wilfrid..	52	Deschambault, P. Q....	April 20, '88...	
16	Hurteau, Joseph P..	47	26 Duluth st., Montreal	Mar. 20, '89...	
17	Perrault, Edouard...	58	Deschambault, P. Q....	March 20, '89...	
18	Bouillé, C. Lydérie..	50	Three Rivers, P. Q....	March 20, '89...	Member of Committee
19	Dussault, Honoré...	54	Ste. Pétronille, P. Q...	July 16, '89...	
20	Brière, Arthur.....	50	Portneuf, P. Q.....	April 28, '91...	
21	Perrault, Alexis....	45	Deschambault, P. Q....	April 28, '91...	
22	Dufresne, Côme....	47	Deschambault, P. Q....	June 23, '91...	
23	Nadeau, J. B.....—	48	Lévis, P. Q.....	April 11, '93...	
24	Naud, Aubert.....	54	Deschambault, P. Q....	July 11, '93...	
25	Dussault, Napoléon.	45	Deschambault, P. Q....	April 3, '94...	
26	Arcand, Barthélémi	45	Deschambault, P. Q....	April 3, '94...	
27	Bellisle, Prudent...	45	Deschambault, P. Q....	April 3, '94...	
28	Arcand, Georges....	43	Deschambault, P. Q....	April 3, '94...	
29	Toupin, Constant...	41	Three Rivers, P. Q....	April 3, '94...	
30	Perrault, Georges...	42	Deschambault, P. Q....	Sept. 11, '94...	
31	Bouillé, Narcisse....	48	Deschambault, P. Q....	Oct. 9, '94...	
32	Léveillé, Joseph....	44	Batisean, P. Q.....	June 18, '95...	
33	Perron, Séverre....	49	115 Chr. Colomb, Mont.	April 14, '96...	
34	Angers, Albéric....	33	Ste. Anne de la Pérade.	March 14, '98...	
35	Belisle, Arthur.....	45	Deschambault, P. Q....	Sept. 20, '98...	
36	Hamelin, G. Théo....	33	Grondines, P. Q.....	Sept. 20, '98...	
37	Perrault, Amthyme...	39	Deschambault, P. Q....	May 1, 1900...	
38	Raymond, J. N.....	38	Deschambault, P. Q....	Oct. 4, 1900...	
39	Bourassa, J. Henri...	30	Lévis, P. Q.....	April 16, '01...	
40	Paquin, E. Azarias..	35	18 du Pont st., Quebec.	June 13, '02...	
41	Labranche, J. Mel..	33	Portneuf, P. Q.....	June 13, '02...	
42	Paquet, Damien....	33	Grondines, P. Q.....	Feb. 4, '03...	
43	Gariépy, J. Arthur..	29	Lachevrotière, P. Q...	April 20, '03...	

SESSIONAL PAPER No. 23.

ABOVE THE HARBOUR OF QUEBEC

the year 1907, their Age, Residence, Number of Pilotage, Earnings, and whether employed on or Tour-de-Rôle.

Number of trips to Montreal.		Number of trips to Intermediate Ports.		Total No. of Trips.	Earnings to Montreal.	Earnings to intermediate Ports.	Total Earnings.	Employed on Special Service or Tour-de-Rôle.
In.	Out.	In.	Out.					
3	1	2	2	8	\$ 172 09	\$ 118 71	\$ 290 80	Tour-de-Rôle.
19	16	.....	.....	35	1,972 20	.....	1,972 20	C. P. R. Atlantic
1	7	5	8	21	256 63	355 54	612 17	Nova Scotia Steel & Coal Co.
3	3	1	1	8	203 25	56 51	259 76	Tour-de-Rôle.
20	16	.....	.....	36	2,051 10	.....	2,051 10	Donaldson Line.
20	18	.....	.....	38	2,119 35	.....	2,119 35	C. P. R. Atlantic.
16	17	.....	.....	33	1,899 47	.....	1,899 47	C. P. R. Atlantic.
27	19	.....	.....	46	2,853 12	.....	2,853 12	Allan Line.
23	23	.....	.....	46	2,449 65	.....	2,449 65	Dominion Coal Co.
25	25	.....	.....	46	2,822 08	.....	2,822 08	Allan Line.
15	15	.....	.....	30	931 03	.....	931 03	Quebec S. S. Co.
22	22	.....	.....	44	2,344 03	.....	2,344 03	Dominion Coal Co.
22	24	.....	1	47	2,690 38	44 63	2,735 01	Allan Line.
17	16	2	1	36	1,572 75	95 80	1,668 55	Dominion Coal Co.
15	15	.....	.....	30	1,699 31	.....	1,699 31	Thomson Line.
17	16	2	2	37	1,652 73	119 59	1,772 32	Dominion Coal Co.
14	14	.....	.....	28	1,513 44	.....	1,513 44	Manchester Line'
16	12	.....	.....	28	1,586 95	.....	1,586 95	C. P. R. Atlantic.
4	5	.....	2	11	369 34	69 13	438 47	Manchester Line.
17	16	.....	3	36	1,550 44	101 07	1,651 51	Head Line.
18	20	.....	.....	38	2,396 29	.....	2,396 29	Dominion Line.
20	24	.....	1	45	2,003 80	33 40	2,037 20	Hamburg American first, then later Elder Dempster Co.
6	1	1	1	9	199 75	35 32	235 07	Tour-de-Rôle.
17	27	.....	.....	44	2,462 68	.....	2,462 68	Allan Line.
13	14	.....	.....	27	1,558 04	.....	1,558 04	Thomson Line.
11	12	.....	.....	23	838 75	.....	858 75	Intercolonial Coal Mfg. Co.
16	16	2	2	36	1,576 34	126 73	1,703 07	Dominion Coal Co.
18	17	.....	.....	35	1,349 46	.....	1,349 46	Acadia Coal Co.
6	2	.....	.....	8	384 60	.....	384 60	Elder Dempster Co. first, then later Tour-de-Rôle.
19	19	.....	.....	38	2,311 84	.....	2,311 84	Leyland & Dominion Line.
7	5	1	1	14	416 06	48 13	464 19	Tour-de-Rôle.
13	14	.....	.....	27	1,582 18	.....	1,582 18	Thomson Line.
17	17	1	1	36	1,651 09	60 47	1,711 56	Dominion Coal Co.
21	19	.....	.....	40	2,455 70	.....	2,455 70	Dominion Line.
5	2	2	1	10	218 47	62 53	281 00	Tour-de-Rôle.
17	17	2	2	38	1,668 88	131 69	1,800 57	Dominion Coal Co.
5	5	.....	.....	10	440 82	.....	440 82	Tour-de-Rôle.
5	4	.....	.....	9	316 70	.....	316 70	Tour-de-Rôle.
21	19	1	1	42	1,793 42	65 91	1,839 33	Dominion Coal Co.
20	15	8	7	50	1,513 26	469 71	1,982 97	Nova Scotia Steel & Coal Co.
10	8	1	1	20	825 87	74 38	900 25	The Crown Boats Line Co.
5	3	.....	.....	8	332 60	.....	332 60	Tour-de-Rôle.
16	15	3	3	37	1,453 81	184 90	1,638 71	Dominion Coal Co.

6-7 EDWARD VII., A. 1908.

BRANCH PILOTS FOR AND ABOVE THE

STATEMENT showing the number of Branch Pilots, for and above the Harbour of Quebec, during
Special Service

No.	Name of Pilot.	Age.	Residence.	Date of Branch.	Remarks.
44	Gagnon, Albert....	31	Three Rivers, P. Q...	Nov. 30, '03..	.....
45	Frenette, J. Oswald	31	Portneuf, P. Q..W....	March 26, '06..	.....
46	Hamelin, Chs. B....	27	Champlain, P. Q.....	June 8, '06..	.....
47	Perron, Tancrede...	30	Deschambault, P. Q...	Dec. 1, '06 ..	.....
48	Frenette, J. Dela....	30	Portneuf, P. Q.....	April 1, '07..	.....
49	Hamelin, Fortunât .	30	Deschambault, P. Q...	April 20, '07..	.....
50	Gauthier, J. Cyriac..	27	1235 Sanguinet st., Montreal.....	July 3, '07..	.....

Perrault, Narcisse, was superannuated on the 11th day of January, 1907, and replaced by J. Dela-Pleau, Joseph Edouard, was dismissed on the 11th day of January, 1907, and replaced by For-Arcand, Nestor, was superannuated on the 1st day of May, 1907, and replaced by J. Gto. Cryiac

MONTREAL PILOTAGE OFFICE, December 17th, 1907.

SESSIONAL PAPER No. 23.

HARBOUR OF QUEBEC—*Continued.*

the year 1907, their Age, Residence, Number of Pilotage, Earnings, and whether employed on or Tour-de-Rôle.

Number of trips to Montreal.		Number of trips to intermediate Ports.		Total No. of Trips.	Earnings to Montreal.	Earnings to intermediate Ports.	Total Earnings.	Employed on Special Service or Tour-de-Rôle.
In.	Out.	In.	Out.					
10	12	.....	.....	22	857 72	.....	857 72	Inverness Ry. & Coal Co.
17	18	.....	.....	35	1,471 14	.....	1,471 14	Dominion Coal Co.
16	20	2	1	39	1,298 02	93 34	1,391 36	Tour-de-Rôle, first, then later, Hamburg American Line.
16	20	.....	.....	36	2,055 58	.....	2,055 58	Donaldson Line.
15	15	.....	.....	30	1,052 76	.....	1,052 76	Dobell Line.
17	22	.....	.....	39	1,191 65	.....	1,191 65	Tour-de-Rôle.
15	20	.....	1	36	1,112 94	13 50	1,126 44	Tour-de-Rôle.
					\$71,499 56	\$2,360 99	\$73,860 55	

voie Frenette, April 1st, 1907.
 tunât Hamelin, April 20th, 1907.
 Gauthier, July 3rd, 1907.

JAMES RILEY,

Superintendent of Pilots.

APPENDIX 4.

LIST OF PENSIONERS OF THE MONTREAL DECAYED PILOTS FUND.

Amount payable each quarter.

No.	Name.	Residence.	Amount.
1	Widow David L. Bouillé.....	Deschambault, P. Q.....	\$ 29 33
2	" Athanase Dufresne.....	Deschambault, P. Q.....	37 33
3	" Victor Gagnon.....	Champlain, P. Q.....	37 33
4	" Alexis Gauthier.....	Deschambault, P. Q.....	32 00
5	" Octave J. Hamelin.....	Deschambault, P. Q.....	37 33
6	" Joseph Léveillé.....	Hospice Auclair, Montreal.....	37 33
7	" Adolphe Lisé.....	16 Drummond St., Montreal.....	37 33
8	" David Mathieu.....	73 Fabre St., Montreal.....	32 00
9	" Edouard Naud.....	Sorel, P. Q.....	32 00
10	" Jean Nault.....	Deschambault, P. Q.....	32 00
11	" Elzéar Bellisle.....	Deschambault, P. Q.....	37 33
12	" Zéphirin Bouillé.....	Deschambault, P. Q.....	37 33
13	" Cyrille Bélisle.....	82 Visitation St., Montreal.....	29 33
14	" Joseph Pleau.....	Ste. Anne de la Pérade, P. Q.....	37 33
15	" Joseph Toupin.....	Champlain, P. Q.....	32 00
16	Heirs Josaphat Sauvageau, care of F. X. Gauthier, tutor.....	Deschambault, P. Q.....	29 33
17	Deceased Pilot Jean Arcand.....	Deschambault, P. Q.....	75 00
18	" Cyrille Bellisle.....	Deschambault, P. Q.....	75 00
19	" L. A. Bouillé.....	Deschambault, P. Q.....	75 00
20	" Philippe Belanger.....	Lotbinière, P. Q.....	75 00
21	" Joseph Chandonnet.....	Lévis, P. Q.....	75 00
22	" François, Desjordy.....	Lavaltrie, P. Q.....	75 00
23	" Pierre Gagnon.....	Three-Rivers, P. Q.....	75 00
24	" Louis Mayrand.....	Ste. Anne de la Pérade, P. Q.....	75 00
25	" Augustin Naud.....	St. Marc des Carrières, P. Q.....	75 00
26	" Liboire Perrault.....	Deschambault, P. Q.....	75 00
27	" Trefflé Toupin.....	Lac Bouchette, P. Q.....	75 00
28	" Alfred Frenette.....	Portneuf, P. Q.....	75 00
29	" Gédéon Groleau.....	Grondines, P. Q.....	75 00
30	" Alfred St. Amant.....	Deschambault, P. Q.....	75 00
31	" Néré Bellisle.....	Deschambault, P. Q.....	75 00
32	" Narcisse Perault.....	Deschambault, P. Q.....	75 00
33	" Nestor Arcand.....	Deschambault, P. Q.....	75 00

JAMES J. RILEY,

Superintendent of Pilots.

APPENDIX 5.

Number of Vessels reported to this office	749
Total tonnage of these vessels.....	1,932,236
The number of masters and crews was.....	449,02
Number of passengers brought.....	75,650

JAMES J. RILEY,

Superintendent of Pilots.

SESSIONAL PAPER No. 23.

APPENDIX 6.

Alterations and additions to By-laws of the Montreal Pilotage District, authorized by the Department, under date December 18th, 1907.

Add to By-law 12: "And that the number of trips made by each of the Selected Apprentices, with Branch Pilots, shall not be less than (50) fifty in each season of navigation."

Add to By-law 8: "Let the voyages to sea count at any time during the apprenticeship, but that the number of sea voyages be not less than three (3), each one to be made in a separate winter."

Alter By-law 43. The number of Pilots shall be (50) fifty instead of (55) fifty-five, as at present, and also the French edition is to be altered to read (50) fifty, instead of (25) twenty-five, as at present.

Instructions regarding number of Selected Apprentices:

"The number of Selected Apprentices will be made (7) seven, instead of (10) ten, as at present; but this alteration will not be made until three of the present (10) ten have been promoted.

JAMES J. RILEY,

Superintendent of Pilots.

APPENDIX 24.

REPORT OF THE PILOTAGE AUTHORITY OF QUEBEC FOR THE YEAR
ENDING DECEMBER 31, 1907.

QUEBEC, December 31st, 1907.

To the Honourable Minister of Marine and Fisheries,
Ottawa.

Sir,—

I have the honour to enclose you a report of the Corporation of Pilots for and below the Harbour of Quebec for the year 1907.

Four pilots have been put on the pension list, namely:—

Mr. Joseph Larochelle, No. 50, licensed October 23rd, 1879, pensioned June 19th, 1907.

Mr. Hubert Raymond, licensed February 20th, 1863, pensioned April 1st, 1907.

Mr. Ls. Ed. Morin, No. 1, licensed March 7th, 1882, pensioned September 1st, 1907, having served a long and honourable term.

Mr. Pierre Gobeil, No. 27, licensed April 4th, 1871, pensioned November 1st, 1907.

Previous to the opening of navigation, all the Pilots have been examined by Dr. Page for eyesight. One pilot, Mr. Elzéar Desrosiers, has not yet passed, but he is under Dr. Page's treatment, and has not piloted this season.

SERVICE OF THE PILOTAGE STATION AT FATHER POINT.

At the end of April, one of the Directors left with pilots for Father Point, whose duty is to see that there are pilots enough on the station to supply the incoming ships and keep the log-book and bill of board of pilots on duty.

Mr. Prudent Marmen, No. 69, was suspended from the list of Pilots for the remainder of the season, and he is not to pilot ships till I receive instructions from the Department.

Mr. Moise Godbout, No. 73, suspended for one month for the reason that he was unable to take his turn.

We were fully advised by the agent, Mr. J. U. Gregory, of all defects in buoys or lights between Father Point and Quebec, and I may say that all pilots did their best to report immediately on their arrival any defect in the river.

Humbly submitted.

ALFRED LAROCHELLE,

Superintendent of Quebec Pilots.

SESSIONAL PAPER No. 23.

BRANCH PILOTS FOR AND BELOW THE HARBOUR OF QUEBEC ACCORDING TO SENIORITY.

No.	Name.	Pilotages Effectuated.	Age	Residence.
1	Louis Edmond Morin, pension 1st September.....	.....	69	Quebec.
2	Edmond Larochelle, Sag. Tour-de-Rôle.....	11	64	St. Michel, Bellechasse,
3	Adelne Pouliot, Tour-de-Rôle.....	9	68	St. Laurent, Orleans.
4	Bart. Pepin dit Lachance, Dominion Coal.....	27	62	St. John, Orleans.
5	Frs.-Xav. Delisle, Office Keeper Light.....	.....	62	Quebec.
6	D. Eugène Boulanger, Sag. T. R.....	9	64	Montmagny.
7	Charles Normand, Dominion Coal.....	27	61	Quebec.
8	Napoléon Rioux, T. R.....	8	62	Quebec.
9	Ray. Baquet dit Lamontagne, C. P. R. Line.....	38	62	Notre Dame
10	Frs.-Xav. Lamarre, Sag. C. T. R.....	9	61	St. Valier.
11	Moise Pouliot, T. R.....	12	59	St. John, Orleans.
12	Paul Gobeil, T. R.....	9	61	St. John, Orleans.
13	Chs. Alarie Raymond, director.....	.....	59	Quebec.
14	Victor Vézina, Thomson Line.....	33	62	Quebec.
15	L. B. O. Larochelle, Allan Line.....	36	60	St. Michel, Bellechasse.
16	Chs. Hermie A. Bernier, T. R.....	8	62	St. Michel, Bellechasse.
17	Louis Robert Demers, Capt. "Campana".....	28	61	Quebec.
18	Joseph G. Dupil, Turbines "Victorian," Allan Line.	42	60	Quebec.
19	Joseph Fortier, T. R.....	12	63	St. John, Orleans.
20	Nestor Lachance, Head Line.....	19	61	St. John, Orleans.
21	Joseph Lapointe, Sag. C. T. R.....	8	64	St. Laurent, Orleans.
22	Pierre Pepin dit Lachance, Dominion Coal.....	27	58	Montreal.
23	Isiode Noel, T. R.....	9	57	St. John, Orleans.
24	Alfred Larochelle, superannuated 1st June.....	2	57	St. Michel, Bellechasse.
25	Théophile Corriveau.....	28	60	Quebec.
26	Elzéar Godbout, T. R.....	10	59	Quebec.
27	Pierre Gobeil, pension.....	5	59	St. John, Orleans.
28	Théodule Pepin dit Lachance, Dominion Coal.....	27	62	Montreal.
29	Achille Trefflé Simard, Head Line.....	39	56	St. Joseph, Levis.
30	Narcisse Lavoie, Sag. C. T. R.....	10	58	St. Luce, Rimouski.
31	Joseph Emilie Couillard, T. R.....	9	56	Quebec.
32	Louis Albert Royer.....	9	62	Quebec.
33	Onésime Noel, Thomson Line.....	28	55	St. John, Orleans.
34	Napoléon Baillargeon, T. R.....	9	57	Quebec.
35	Frs. X. Demeules, Manchester Line.....	33	55	St. John, Orleans.
36	Louis Honoré Lapierre, Sag. T. R.....	11	57	Notre Dame, Levis.
37	Jos. Eugène Lachance, T. R.....	10	53	Quebec.
38	Théophile St.-Laurent Dominion Coal.....	33	56	Quebec.
39	Joseph Victor Gourdeau, T. R.....	12	60	St. Petronille, Orleans.
40	Louis Trefflé Delisle, T. R.....	12	53	Trois Pistoles.
41	J.-Bte. Couillard, T. R.....	11	56	Cap St. Ignace.
42	J. E. Bonaventure Lavoie, T. R.....	10	55	St. Anne.
43	Adjutor Baillargeon, Manchester Line.....	38	53	Quebec.
44	Samuel Rioux.....	2	54	Quebec.
45	Charles Octave Clavet, Dominion Coal.....	27	53	St. Michel, Bellechasse
46	Paul Lachance, Sag. C. T. R. (suspended to the 1st July, 1907).....	9	51	Quebec.
47	Arcadius Jouvin, Sag. C. T. R.....	11	49	St. Luce, Rimouski.
48	Paul Lachance, Allan Line.....	44	52	Quebec.
49	Joseph Pouliot, director.....	.....	51	St. John, Orleans.
50	Joseph Larochelle, pension.....	.....	50	St. Michel, Bellechasse.
51	Adjutor Lachance C. P. R. Line.....	36	49	Quebec.
52	Frs. Gaudreau, C. P. R. Line.....	36	56	Quebec.
53	Arthur Kœnig.....	11	56	L'Islet.
54	Eugène Anetil, Sag. Tour-de-Rôle.....	13	48	Quebec.
55	David Dumas, T. R.....	9	54	Notre Dame, Levis.
56	Joseph Lachance., Sag. T. R.....	8	53	St. Laurent, Orleans.
57	Alphonse Pouliot, director.....	.....	55	Château Richer.
58	Elzéar Normand, T. R.....	8	48	Cap St. Ignace.
59	Jean-Bte Bernier, Donaldson Line, Sag.....	35	48	L'Islet.

6-7 EDWARD VII., A. 1908.

BRANCH PILOTS FOR AND BELOW THE HARBOUR OF QUEBEC ACCORDING TO SENIORITY.—*Con.*

No.	Name.	Pilotages Effectuated.	Age	Residence.
60	Joseph Paquet.....	11	46	Quebec.
61	Jean A. Lachance, Sag. T. R.....	10	45	Quebec.
62	Arthur Baillargeon.....	9	50	Quebec.
63	Joseph Vézina, Dominion Line.....	29	46	Quebec.
64	Hermenegilde Guénard, Sag. T. R.....	10	49	Montmagny.
65	Elzéar Desrosiers (not yet passed).....		54	Quebec.
66	Joseph A. Irvine, captain of White Island light ship.....		51	Green Island.
67	Frédéric Bouffard, T. R.....	11	50	St. Laurent, Orleans.
68	Jules Asselin, Dominion Line.....	24	46	Quebec.
69	Prudent Marmen, suspended.....	5	48	Beauport.
70	Lucien Lachance, Thomson Line.....	30	46	Quebec.
71	Camille Bernier, Dominion Line.....	33	49	Quebec.
72	Moise Blouin, T. R.....	9	56	Quebec.
73	Moise Laurent Godbout, T. R.....	9	47	Quebec.
74	Alfred Gaudreau, T. R.....	9	54	Cap St. Ignace.
75	Alfred Raymond, Head Line.....	14	46	Quebec.
76	Philéas Lachance, Manchester Line, Sag.....	34	47	St. John, Orleans.
77	Joseph H. Talbot, director and president.....	6	45	Berthier.
78	Moise Arthur Lachance, T. R.....	9	44	Quebec.
79	Louis Frs. Thivierge, director.....		41	Quebec.
80	Joseph Emile Lachance, T. R.....	10	41	St. John, Orleans.
81	Alphonse Asselin, T. R.....	11	42	Quebec.
82	Edmond Larochelle, captain Lady Evelyne.....		St.	Michel.
83	Joseph Plante, T. R.....	9	41	St. Paul's Bay.
84	Alphonse Paquet, T. R.....	13	41	Quebec.
85	Adéard Bernier, C. P. R. Empress Line.....	38	46	Quebec.
86	Jean-Bte. Pouliot, Donaldson Line.....	35	37	St. John, Orleans.
87	Joseph Thivierge, Allan Line.....	30	38	Quebec.
88	Léonidas Lachance, Sag. T. R.....	9	37	St. John, Orleans.
89	Eudore, Langlois, Sag. T. R.....	9	45	Quebec.
90	Joseph Deslile, T. R.....	11	33	St. John, Orleans.
91	Jules Lachance, Dominion Coal.....	26	23	St. John, Orleans.
92	Auguste Santerre, Allan Line.....	33	24	St. Michel, Bellechasse.
93	Arthur Larochelle, T. R.....	9	26	St. Michel, Bellechasse.
94	Raoul Lachance, Elder Dempster Line.....	23	26	St. Joseph, Levis.
95	William Langlois, Dominion Co.....	29	27	Quebec.
96	Ernest Bernier, T. R.....	9	32	St. Michel, Bellechasse.
97	Arthur Baquet, T. R.....	9	24	Notre Dame, Levis.
98	Jules Lamarre, T. R.....	9	23	St. Valier.
99	George Larochelle, T. R.....	10	24	Quebec.
100	Adéard Delisle, T. R.....	10	27	Quebec.
101	Pierre L. Lachance, Dominion Coal.....	30	23	St. Michel, Bellechasse.
102	Alexandre Larochelle, Elder Dempster Line.....	25	23	St. Michel, Bellechasse.
103	Joseph A. Dupil, T. R.....	9	23	St. Jean Port Joli.
104	Arthur Paquet, T. R.....	9	31	St. John, Orleans.

OFFICERS OF THE BOARD:—

ALPHONSE POULIOT, Director.

CHARLES RAYMOND, Director.

JOSEPH POULIOT, Director.

LOUIS THIVERGE, Director.

JOSEPH H. TALBOT, President.

F. X. DIXON, Secretary-Treasurer.

PH. LAMONTAGNE, Assistant Secretary-Treas.

QUEBEC, December 31st, 1907.

Certified.

ALFRED LAROCHELLE,

Superintendent of Quebec Pilots.

SESSIONAL PAPER No. 23.

DECAYED PILOTS' FUND, QUEBEC.

QUEBEC, 30th December, 1907.

LT.-COL. F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

Sir,—I have the honour to transmit a detailed statement, in duplicate, of the moneys received and expended by the Decayed Pilots' Fund of Quebec for the past year; also a similar statement, in duplicate, of the moneys received and expended by the Corporation of Pilots; all of which have been revised and attested.

The total amount received by the Corporation of Pilots for pilotage was	\$ 120,639 72
The total expenditure, including the 7% deposited in the Fund	22,567 05
Leaving a net balance of	\$ 98,072 67
Giving each a net dividend of	1,035 00
Twenty-three foreign vessels paid in	1,477 89
And 808 British vessels paid in	119,161 83
	<u>\$ 120,639 72</u>

All of which is humbly submitted.

(Sgd.) F. X. DION,
Secretary-Treasurer.

F. X. Dion, in current account with the Corporation of Pilots of Quebec to December 31, 1907.

DR.

To balance of 1906.....	\$ 796 16
Reserve Fund.....	3,500 00
Customs, Montreal.....	10,365 25
" Three Rivers.....	891 54
" Sorel.....	1,685 48
" Chicoutimi.....	1,452 13
" St. Thomas.....	240 04
" Rimouski.....	193 45
" Escoumains.....	74 55
" Rivière du Loup.....	179 88
" Ste. Catherine.....	259 08
of 1906.....	\$ 120 27
Interest paid.....	27 80
1907.....	92 47
Lost time.....	153 90
rent, balance of 1906.....	\$ 298 00
Rent, 1907.....	896 00
Board at Father Point, balance 1906.....	1,194 00
1907.....	780 45
Pilotage collected at Quebec.....	1,954 00
	105,920 10
	<u>\$ 131,031 42</u>

CR.		
By expenses of pilots.....	\$ 758 08	
	2 75	
general expenses.....		755 33
indemnity to directors.....		982 22
legal advisers.....		600 00
insurance.....		200 00
insurance.....		41 70
pilotsage remitted.....		621 78
board at Father Point.....		2,187 75
salaries of employees.....		1,550 00
decayed pilots' fund.....		8,437 80
Rent:—Chouinard Estate.....		600 00
contribution and special dues.....		218 50
heating and lighting.....		77 50
pilots pensioned.....		10,000 00
interest paid on loans.....		180 00
reserve fund.....		2,000 00
dividends.....		102,015 00
balance.....		563 84
		\$ 131,031 421

(Sgd.) F. X. DION,
Secretary-Treasurer.

QUEBEC, 31st December, 1907.

N. B.—We, the undersigned, officially appointed to examine the books and accounts of the Corporation of Pilots of Quebec, certify to having carefully examined them and found them correct.

(Sgd.) R. BAQUET,
 ARTHUR BAILLARGEON,
Auditors.

(Sgd.) J. A. LABRECQUE,
Accountant.

SESSIONAL PAPER No. 23.

STATEMENT of the Moneys Received and Expended by the Corporation of Pilots
for the Decayed Pilot Fund of Québec, during the year 1907.

RECEIPTS.			
To Balance of 1906.....	\$ 7,347.86	Audet, Cyrille.....	216.00
Contribution of Pilots.....	8,437.80	Paquet, Paul.....	216.00
Interest on investments.....	4,707.75	Normand, George.....	216.00
" from Savings' Bank....	267.66	Couillard, Jas. Phil.....	216.00
St. Romuald Fabrick, remitted on loan.....	2,000.00	Chamberland, Ephrem.....	216.00
St. Valier Fabrick, remitted on loan.....	2,000.00	Delisle, Nazaire.....	216.00
Thomas Gray, remitted on loan	1,100.00	Brown, Charles.....	216.00
	\$25,861.07	Lachance, Numa, died Apr. 21, '07	102.55
		<i>Pensioned:</i>	
		Bouffard, Arthur, Oct. 24, 1906..	220.11
		Godbout, Laurent, Feb. 1, 1907..	162.00
		Tremblay, J. Bte, Feb. 1, 1907...	162.00
		Dugas, Georges, Feb. 1, 1907....	162.00
			\$3,400.66
EXPENDITURE.			
By Pensions.....	\$11,447.36	1 PILOT AT \$196.	
Relief.....	350.00	Chouinard, Thomas.....	\$ 196.00
Salaries.....	550.00	1 PILOT AT \$176.	
Loan to St. Prime Trustees....	7,000.00	Lapointe, Cyrille.....	\$ 176.00
Deposits in Savings Banks....	6,430.20	1 PILOT AT \$158.	
Balance on hand.....	83.51	Raymond, Leandre, died July 3, '07	\$ 106.28
	\$25,861.07	1 PILOT AT \$100.	
		Forbes, James, died March 2, 1907..	\$ 33.85
RELIEF.		WIDOWS.	
By Laurent Godbout, to 1st Feb. '07	\$50.00	27 WIDOWS AT \$116.	
George Dugas.....	50.00	Widow Bernier, J. Bte.....	\$ 116.00
J. Bte. Tremblay.....	50.00	" Bouffard, David, died,	
Elzear Desrosiers, 10 April to		March 3, 1907.....	39.23
10 December, 1907.....	133.34	" Dufresné, Jeremie.....	116.00
Samuel Rioux, from Sept. 1, '07	66.66	" Caron, Maximin.....	116.00
	\$350.00	" Damours, David.....	116.00
		" Delisle, Magloire, died	
		April 22, 1907.....	56.11
		" Despres, Auguste.....	116.00
		" Gobeil, Antoine.....	116.00
		" Langlois, Paul.....	116.00
		" Gobeil, Jean.....	116.00
		" Lapointe, Antoine.....	116.00
		" Pouliot, J. Bte.....	116.00
		" Menard, Regis.....	116.00
		" Paquet, Joseph.....	116.00
		" Pouliot, Jean.....	116.00
		" Dumas, Charles, ac.....	87.00
		" Dumas, François.....	116.00
		" Vaillancourt, Alex.....	116.00
		" Vezina, Charles.....	116.00
		" Adam, J. E.....	116.00
		" Baquet, Annibal.....	116.00
		" Demers, Victor.....	116.00
		" Pouliot, Joseph.....	116.00
		" Damours, Achille.....	116.00
		" Pelletier, Charles, died	
		January 18, 1907.....	21.51
		<i>Pensioned:</i>	
		Widow Langlois, Cyprien, Nov. 6 '07	114.11
		" Lachance, Numa, Apr. 21, '07	60.64
			\$2,814.60
PENSIONERS AT THE EXPENSE OF THE FUND.			
Amount paid to each during the year from November 1, 1906 to the 1st November, 1907, inclusive. The whole paid from January 1, 1907 to December 31, 1907.			
3 PILOTS AT \$300.00			
<i>Pensioned:</i>			
Raymond, Hubert. April 10, '07	\$ 168.00		
Larochelle, Joseph, June 19, '07..	109.23		
Morin, Ls., Ed, Sept. 1, 1907....	50.00		
	\$327.23		
17 PILOTS AT \$216.			
Genest, Edouard.....	\$216.00		
Brown, Joseph.....	216.00		
Pouliot, Joseph.....	216.00		
Gravel, Joseph.....	216.00		
Lachance, Moise.....	216.00		

6-7 EDWARD VII., A. 1908.

STATEMENT of the Moneys Received and Expended by the Corporation of Pilots
for the Decayed Pilot Fund of Quebec, during the year 1907.

11 WIDOWS AT \$112.			1 WIDOW AT \$80.		
Widow	Gourdeau, Theop.....	\$ 112.00	Widow	Turgeon, Edouard.....	80.00
"	Delisle, Jean.....	112.00			
"	Morency, Jos., died		2 WIDOWS AT \$68.		
	August 14, 1907.....	88.36			
"	Lachance, Joseph.....	112.00	Widow	Morency, Guil.....	68.00
"	Forgues, Narcisse.....	112.00	"	Dallaire, Napoleon.....	68.00
"	Delisle, F. W.....	112.00			
"	Lemieux, Pierre.....	112.00	136.00		
"	Ruellard, Pierre, Arr.....	28.00			
"	Ruellard, Pierre, Arr.....	112.00	3 WIDOWS AT \$64.		
"	Lamarre, Jean, Frs.....	112.00	Widow	Coté, Magloire.....	64.00
"	Patoine, J. Bte.....	112.00	"	Turgeon, Alfred.....	64.00
"	Curodeau, Naz., pensioned		"	Caron, Fabien, died Feb.	
	from Nov. 20, 1906.....	108.85		26, 1906.....	4.68
		<u>\$1,233.21</u>			
			132.68		
6 WIDOWS AT \$110.			CHILDREN.		
Widow	Doiron, Eustache.....	\$ 110.00	Child	Dugos, Jean.....	30.00
"	Demers, Ed., died Jan. 10,		"	Forbes, Isaac, 2.....	36.00
	1907.....	18.85	"	Giroux, Jean.....	30.00
"	Fortin, Nicholas.....	110.00	"	Langlois, Joseph.....	30.00
"	Després, Georges.....	110.00	"	Toupaint, Pierre.....	30.00
"	Sansterre, Adelard.....	110.00	"	Plante, Joseph.....	30.00
"	Paquet, Paul.....	110.00	"	Noel, François.....	30.00
		<u>\$ 568.85</u>	"	Chouinard, Charles.....	30.00
7 WIDOWS AT \$106.			"	Gobeil, Jean.....	30.00
Widow	Curodeau, Pierre, Arrears..	\$ 26.50	"	Babin, Damase.....	30.00
"	Curodeau, Pierre, ac.....	79.50	"	Descombes, Pierre.....	30.00
"	Bernier, Jos., F. X.....	106.00	"	Talbot, J. Bte.....	30.00
"	Pauliot, Paul.....	106.00	"	Larochelle, Laurence.....	30.00
"	Mercier, Magloire.....	106.00			
"	Langlois, Phileas.....	106.00	416.00		
"	Labrecque, Leon.....	106.00			
"	Pouliot, Napoléon.....	106.00	RECAPITULATION OF PENSIONS		
		<u>\$ 742.00</u>	3 Pilots at \$ 300.....		327.23
7 WIDOWS AT \$100.			17 " 216.....		3,400.66
Widow	Fournier, Amable.....	\$ 100.00	1 " 196.....		196.00
"	Glynn, Dennis.....	100.00	1 " 176.....		176.00
"	Noel, Henri.....	100.00	1 " 158.....		106.28
"	Ross, Pierre.....	100.00	1 " 100.....		33.85
"	Langelier, Fabien.....	100.00	24 Pilots.		
"	Dion, Alfred.....	100.00	27 Widows at \$ 116.....		2,814.60
"	Dion, Joseph.....	100.00	11 " 112.....		1,233.21
		<u>\$ 700.00</u>	6 " 110.....		568.85
4 WIDOWS AT \$96.			7 " 106.....		742.00
Widow	Levesque, Joseph.....	96.00	7 " 100.....		700.00
"	Pineau, Benj.....	96.00	4 " 96.....		384.00
"	Lachance, Ovide.....	96.00	1 " 80.....		80.00
"	Pelletier, David.....	96.00	2 " 68.....		136.00
		<u>384.00</u>	3 " 64.....		132.68
			68 Widows.		
			14 children at 30.....		416.00
			106 Pensioners.....		\$ 11,447.36

APPENDIX 25.

REPORT OF THE PILOTAGE AUTHORITY OF NEW WESTMINSTER, B.C.,
FOR THE YEAR ENDING DECEMBER 31, 1907.

NEW WESTMINSTER, B. C., February 16th, 1908.

F. GOURDEAU, Esq.,
Deputy Minister of Marine,
Ottawa.

Sir,

I herewith enclose you a report of the Pilotage Commissioners for the Port of New Westminster, B. C., for the year ending December 31, A. D. 1907.

Respectfully submitted.

F. P. MAXWELL,
Secretary.

Name of Pilot:

James W. Rogers, age 41, serving full district.

No. of vessels reported liable to pay pilotage.

	Inwards.	Outwards.
British sailing vessels.....	2	3
" steam vessels.....	3	5
Foreign steam vessels.....	5	6
" sailing vessels.....	2	2
	<hr/> 12	<hr/> 16

Nationality of above vessels reported inwards:

British.....	5
American.....	3
Norwegian.....	3
German.....	1
	<hr/> 12

Total amount received for pilotage services for the year, as follows:—

For British vessels.....	\$ 579 00
For Foreign vessels.....	390 00
	<hr/> \$ 969 00

Rates of Pilotage for the District are as follows:—

For vessels under sail.....	\$4.00	per foot.
For vessels under steam.....	1.50	"
For vessels in tow of a steamer.....	2.00	"

Respectfully submitted.

F. P. MAXWELL,
Secretary.

SESSIONAL PAPER No. 23.

APPENDIX 26.

REPORT OF THE PILOTAGE AUTHORITY OF PICTOU, N.S., FOR THE YEAR 1907.

TOTAL amount received for Pilotage dues.

Received from steamships.....	\$ 2,582 16	
" sailing ships.....	31 50	
	<hr/>	\$ 2,613 66
Of this amount		
Received from British ships.....	389 42	
" foreign ships.....	2,224 24	
	<hr/>	2,613 66

Certified.

A. B. BELANGER,
Master S. S. Campana.

EARNINGS of Pilots.

No.	Name.	Age.	
1	Wm. A. Cooke.....	69	428 24
2	Chas. Cooke.....	59	857 80
4	Angus Smith.....	50	953 01
6	Wm. McPherson.....	32	265 79
7	Willard Fraser.....		77 03
			<hr/>
			\$ 2,581 87

RECEIPTS.

Received pilotage as per statement.....	\$ 2,613 66
" from 5 pilot bonds.....	5 00
" " Capt. Belanger.....	40 00
Balance due Secretary.....	495 21
	<hr/>
	\$ 3,153 87

EXPENDITURES.

Paid pilots for pilotage.....	\$ 2,581 87
" secretary's salary.....	200 00
" balance due Secretary, 1906.....	372 00
	<hr/>
	\$ 3,153 87

DODD DWYER,
Secretary.

A. C. MACDONALD,
Chairman.
WILLIAM FRASER,
JAMES YORSTON,
JOSEPH F. FOSTER,
DAVID A. BARRY.

APPENDIX 27.

REPORT OF THE PILOTAGE AUTHORITY FOR LOUISBURG FOR THE
YEAR ENDING 31ST DECEMBER, 1907.

Col. F. GOURDEAU,

Deputy Minister of Marine and Fisheries,

Sir,—I have the honour to submit my annual report of the Pilotage Authority
of Louisburg for the year ending 31st December, 1907.

Q

Number of Ships.	Tonnage.	Amount paid.
104 British steamships.....	246,313	\$ 2,572 00
157 foreign steamships.....	230,202	2,779 00
14 British sail ships.....	1,850	120 50
7 foreign sail ships.....	514	50 00
		<hr/> 5,521 50
Taking orders to ships and docking ships.....		144 00
Taken away on ships when on duty.....		37 78
		<hr/> 5,703 28
To commission and other bills paid.....		1,236 48
		<hr/> \$ 4,466 80
Eight pilots' salary for year 1907.....	\$	4,466 80

Number of Pilots licensed, 8.

Rates of Pilotage for Port of Louisburg, N. S.:—

No.	Names of Pilots.	Age.	No.	Names of Pilots.	Age.
1	Pearce Pope.....	33	2	Thomas Wilcox.....	44
3	John Power.....	45	4	John E. Tutty.....	48
5	Wm. H. Townsend.....	60	6	Wm. Williams.....	37
7	Lewis Tutty.....	37	8	Edward Kelly.....	42

Number of boats kept ready for use by Pilots, 8.

Sailing vessels	80 tons and under	150 tons	\$5 inward, \$3 outward.
"	150	" 250	" 8 " \$5 "
"	250	" 400	" 9 " 7 "
"	over 400 tons,	1 per ton additional.	
Steam ships of	80 tons and under	500 tons	\$8 " 8 "
"	500	" 1000	" 10 " 6 "
"	1000	" 3000	" 12 " 8 "
Winter pilotage from December 1st to April 15th, 50% additional.			

THOS. TOWNSEND,

Secretary to Pilot Board.

LOUISBURG, N. S., Dec. 31st, 1907.

SESSIONAL PAPER No. 23.

APPENDIX 28.

REPORT OF THE VICTORIA AND ESQUIMAULT PILOTAGE AUTHORITY
FOR THE YEAR ENDING DECEMBER 31, 1907.

VICTORIA, B. C., Feb. 13, 1908.

F. GOURDEAU, Esq.,

Deputy Minister of Marine and Fisheries,
Ottawa.

Dear Sir,—Enclosed please find Annual Report for Victoria and Esquimalt Pilotage Authority, which I trust will be satisfactory.

I am, Sir,

Your obedient servant,

ANGUS B. McNEILL,

Secretary-Treasurer.

ANNUAL REPORT.

RECEIPTS.

Surplus, 1906.....	\$	403	13
British.....		5,619	25
Foreign.....		8,253	85
		<hr/>	\$ 14,276.23

EXPENDITURE.

Surplus, 1906, to pilots.....	403	13
Pilots' net earnings.....	12,199	63
Secretary—Salary.....	600	00
Rent, furnishings, etc.....	599	71
Surplus 1907 on hand.....	455	76
“Cape Corsa” unpaid.....	18	00
	<hr/>	\$ 14,276 23

SHIPS EMPLOYING A PILOT.

British:

Steamers.....	150
Tugs.....	0
Sailing vessels.....	15
	<hr/>
	165

Foreign:

Steamers.....	135
Tugs.....	0
Sailing vessels.....	7
	<hr/>
	142
	<hr/>
	307

SHIPS NOT EMPLOYING A PILOT.

British:

Steamers.....	2
Tugs.....	0
Sailing vessels.....	0
	<hr/>
	2

Foreign:

Steamers.....	99
Tugs.....	21
Sailing vessels.....	0
	<hr/>
	120
	<hr/>
	122

6-7 EDWARD VII., A. 1908.

License.	Name.	Age.	Limits of Service.
1st Class.....	Samuel W. Bucknam.....	58	Victoria and Esquimault
1st Class.....	John Newby.....	58	Pilotage District, and the
1st Class.....	William Cox.....	52	Gulf to other limits.
1st Class.....	John Thompson.....	59	
1st Class.....	Thos. Bebbington.....	61	

ANGUS B. McNEILL,

Secretary-Treasurer Victoria and Esquimault Pilotage District.

Approved: JOHN A. COX,

A. B. FRASER, Sr.,

Commissioners: WILLIAM GRANT,
JOSHUA KINGHAM,

WALTER S. FRASER,

Auditor.

APPENDIX 29.

REPORT OF THE PILOTAGE OF ST. ANNE, N. S., FOR THE YEAR ENDING
31st DECEMBER, 1907.

ST. ANNE, N. S., January 31st, 1908.

Deputy Minister of Marine and Fisheries, Ottawa.

Sir,—I now send you a return of all the vessels and their tonnage and country to which they belong, and the amount of pilotage paid during the year 1907, which I hope will be found correct.

Your obedient servant,

D. McAULAY, *Secretary to Pilotage Commissioners.*RETURN¹ for Vessels that paid pilotage at this port from January, 1907, to December 31st, 1907.

Date.	Vessel's Name.	British	Foreign	Tons.	Amount paid in.	Amount paid out	Total.
1907							
May.....	S.S. Aurora.....		Nor.	664	\$ 17 00	\$ 17 00	\$ 34 00
".....	Dagfred.....		Nor.	676	.....	17 00	17 00
".....	Flora.....		Nor.	634	17 00	17 00	34 00
June.....	Nora.....		Nor.	699	17 00	17 00	34 00
".....	Flora.....		Nor.	634	17 00	17 00	34 00
".....	Sylvia.....		Nor.	699	17 00	17 00	34 00
".....	Amythest.....	British	.....	872	19 00	19 00	38 00
".....	Dagfred.....		Nor.	676	17 00	17 00	34 00
July.....	Amythest.....	British	.....	872	19 00	19 00	38 00
".....	Dagfred.....		Nor.	676	17 00	17 00	34 00
".....	Nora.....		Nor.	699	17 00	17 00	34 00
".....	Sylvia.....		Nor.	699	17 00	17 00	34 00
August....	Nora.....		Nor.	699	17 00	17 00	34 00
".....	Sylvia.....		Nor.	699	17 00	17 00	34 00
".....	Sylvia.....		Nor.	699	17 00	17 00	34 00
September..	Amythest.....	British	.....	872	19 00	19 00	38 00
".....	Nora.....		Nor.	699	17 00	17 00	34 00
".....	Dagfred.....		Nor.	676	17 00	17 00	34 00
October....	Nora.....		Nor.	699	17 00	17 00	34 00
".....	Sylvia.....		Nor.	699	17 00	17 00	34 00
".....	Dagfred.....		Nor.	699	17 00	17 00	34 00
".....	Nora.....		Nor.	699	17 00	17 00	34 00
November...	Flora.....		Nor.	634	17 00	17 00	34 00
".....	Dagfred.....		Nor.	676	17 00	17 00	34 00
".....	Sylvia.....		Nor.	699	17 00	17 00	34 00
December..	Nora.....		Nor.	699	17 00	17 00	34 00
".....	Dagfred.....		Nor.	676	17 00	17 00	34 00
".....	Sylvia.....		Nor.	699	17 00	17 00	34 00
2,616				14,807			\$ 947 00

SESSIONAL PAPER No. 23.

APPENDIX 30.

REPORT OF NANAIMO PILOTAGE AUTHORITY FOR THE YEAR ENDING
DECEMBER 31, 1907.

NANAIMO, B.C., January 10, 1908.

The DEPUTY MINISTER OF MARINE AND FISHERIES,
Ottawa, Ont.

SIR,—By direction of Board of Pilot Commissioners, I have the honour to enclose you statement of the accounts of the Nanaimo Pilotage Authority for the year ending December 31st, 1907.

I have the honour to be, Sir,

Your obedient servant,

TULLY BOYCE,
Secretary.

LICENSED PILOTS.

Name.	Age.
Christensen, James.....	66
Butler, James Edgar.....	47
Owen, William David.....	41
Yates, Albert Francis.....	55
Gosse, Josiah.....	43
Foote, John Calvin.....	47
Butler, John William.....	37

RATES OF PILOTAGE.

\$1.00 per foot draught, and 1 cent per ton net register.

Special rates for mail steamers and tugs.

NANAIMO PILOTAGE AUTHORITY,
OFFICE OF THE SECRETARY,
NANAIMO, B.C., January 10th, 1908.

Statement of vessels which paid pilotage fees for the year ending December 31st, 1907.

BRITISH.

	Tonnage.	Pilotage	
Steamers.....	143	34,945	\$14 717.16
Sailing vessels.....	5	9,762	275.47

FOREIGN.

	Tonnage.	Pilotage.	
Steamers.....	440	376,309	\$17,364.25
Sailing vessels.....	26	33,146	1,152.97
Barges.....	5	6,088	150.48
Totals.....	619	767,450	\$33,660.33

6-7 EDWARD VII., A. 1908.

STATEMENT of Receipts and Expenditures for the year ending 1907.

To Pilotage dues collected as per enclosed statement.....	33,660.33	By Salary Secretary and Treasurer	600.00
		Rent, Janitor, Light, Fuel....	226.50
		Printing, Postage & Stationery	69.55
		Office Repairs.....	7.00
		Legal expenses.....	15.00
		Commission to collectors.....	612.96
		Pilot station expenses.....	2,987.02
		Travelling & personal expenses	2,560.00
		Refunds.....	98.15
		Pilot boat account.....	590.00
		Net earnings.....	25,894.15
	<u>\$33,660.33</u>		<u>\$ 33,660.33</u>

Approved;
Commissioners:

THOMAS O. CONNELL,
HARRY B. SHAW,
RICHARD GILMOUR

J. S. KNARSTON,
Chairman.
TULLY BOYCE,
Secretary.

APPENDIX 31.

REPORT OF THE PILOTAGE AUTHORITY OF PUGWASH FOR THE
YEAR ENDING DECEMBER 31, 1907.

To the Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I beg to report on behalf of the Commissioners of Pilots for the Ports of Pugwash and Port Philip ending December 31, 1907, as follows:—

No.	Names of Pilots.	Age.	No.	Names of Pilots.	Age.
1	Neil McHeiver.....	47	5	Andrew Seaman.....	65
2	Clarence Reid.....	54	6	Alfred Seaman.....	29
3	George Cooper.....	56	7	George Tuttle Kin.....	28
4	George Heather.....	65			

NAMES of Ships.

Names of Ships.	Date.	Nationality.	Tonnage.	Pilotage.	Pilot in Charge.
SS. Helmer March.....	May.....	Danish.....	1,349	\$ 55.71	A. E. Seaman.
" St. Gottherd.....	".....	British.....	1,790	80.55	Neil McHeiver.
" Harald.....	July.....	German.....	1,692	71.14	Neil McHeiver.
" Langford.....	".....	Norwegian....	1,634	73.53	Alfred E. Seaman.
" Vizcainia.....	August.....	British.....	1,370	61.65	George Heather
" Collingside.....	".....	".....	1,713	72.08	Neil McHeiver.
" Dageid.....	Nov.....	Norwegian....	789	36.00	Neil McHeiver.
			10,337	450.66	

SESSIONAL PAPER No. 23.

In addition to the above for piloting steam ships	450 66
Neil McHeiver has received from schooners	750
George King has received from schooners	30.07
Alfred E. Seaman has received from schooners	12.00
	\$500.23

German 1 Norwegian 2 British 3 Danish 1.

The sum of \$500.23 has been duly earned and paid to the Pilots so employed, and no accident on the part of Pilots has happened.

The above report is most respectfully submitted.

A number of schooners entered this Port that do not employ a licensed Pilot.

I am, Sir, your most humble and obedient servant,

ELIAS KING,

Secretary of Commissioners of Pilots.

APPENDIX 32.

REPORT OF THE VANCOUVER PILOTAGE DISTRICT FOR THE YEAR
ENDING 31st., DECEMBER, 1907.

VANCOUVER, B.C., 10th January, 1908.

The Honourable

The Minister of Marine & Fisheries,
Ottawa, Canada.

SIR,—I have the honor to enclose herewith statement of accounts, and of the affairs of the Vancouver Pilotage District for year just ended 1907.

At a meeting of the Commissioners held yesterday the accounts were audited and signed by the Chairman, and I was instructed to forward same to you.

I have the honour to be, Sir,

Your obedient servant,

C. GARDINER JOHNSON,

Secretary.

No. of License.	Name of Pilot.	Age.	Service in.	Remarks
1 ¹ 1st class.....	William Ettershank.....	65	{ Licensed to pilot vessels of any sizes or description within the limits of the Vancouver Pilotage District.	{ Active.
2 ¹ 1st class.....	George W. Robertson.....	57		{ " "
3 1st class.....	H. Robson Jones.....	52		{ " "
4 1st class.....	Donald Patterson.....	46		{ " "
5 ⁴ 3rd class.....	George W. Roberts.....	35		{ " "

NOTE.—Pilotage dues now in force are same as approved by Orders in Council 19th January and 19th February, 1907.

6-7 EDWARD VII., A. 1908.

Inwards.

11 British sailers.....	361.14
5 Foreign sailers.....	132.72
96 British sailers.....	5,730.26
225 Foreign steamers.....	4,586.26
	<hr/>
	\$ 10,810.38

Outwards.

11 British sailers.....	389.92
5 Foreign sailers.....	174.27
93 British steamers.....	6,329.29
224 Foreign steamers.....	4,542.37
	<hr/>
	\$ 11,435.85.
	<hr/>
	\$ 22,246.23

Remaining in port on 31st December, 1907.—*Empress of Japan*, \$82.39;
Governor Robie, \$30.31; *Moana*, \$166.42.

C. GARDINER JOHNSON,
Secretary.

Approved,
 RICHARD ALEXANDER,
Chairman.

Receipts.

Balance in Bank 5th January, 1907.....	\$ 667.92
Pilotage earnings for year, 1907.....	22,246.23
	<hr/>
	\$22,914.15

Disbursements.

Paid pilots 5th January, 1907.....	\$ 677.92
Paid pilots during year, 1907.....	14,438.07
Office expense account, 1907.....	1,026.50
Pilotage expense account, 1907.....	5,583.56
Balance in bank.....	1,198.10
	<hr/>
	\$ 22,914.15

C. GARDINER JOHNSON,
Secretary.

Approved,
 RICHARD ALEXANDER,
Chairman.

VANCOUVER, B.C., 1st January, 1908.

LEDGER BALANCE.

Assets.

Bank of Montreal.....	\$ 1,198.10	
Bank of Montreal savings department.....	\$ 714.66	
Interest, 1907.....	21.55	
	<hr/>	
	\$ 736.21	
	<hr/>	
		\$ 1,934.31

SESSIONAL PAPER No. 23.

Liabilities.

Reserve fund.....	\$	714.66	
Interest, 1907.....		21.55	
		<hr/>	\$ 736.21
Pilotage earnings undisbursed.....		1,198.10	
		<hr/>	\$ 1,934.31

C. GARDINER JOHNSON,
Secretary.

Approved,
RICHARD ALEXANDER,
Chairman.

APPENDIX 33.

REPORT OF THE PILOTAGE AUTHORITY OF BUCTOUCHE, N. B., FOR
THE YEAR 1907.

BUCTOUCHE, N. B., January 29, 1908.

F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

DEAR SIR,—I herewith transmit pilotage returns for the pilotage district of Buctouche for the year 1907, which I hope will be in good time and satisfactory.

Yours very truly,

JOHN C. ROSS, *Secretary,*
Buctouche Pilotage Authority.

PILOTAGE Returns, district of Buctouche, New Brunswick, for the year 1907.
Act 36 Vc., cap. 54, sec. 24.

1. Names and ages of pilots licensed:—Joseph Crossman, age 56 years; Joseph Bellisle, age 51 years; John Mooney, age 33 years; Francis R. Smith, age 33 years, Peter A. Smith, age 41 years; Joseph Duplessis, age 48 years.

2. The above pilots are licensed to undertake the pilotage of vessels of every description within and throughout the pilotage district of Buctouche.

3. Pilotage dues are charged as per section 12 of rules and regulations for the district, viz.: One dollar and fifty cents per foot draught of water, both inward and outward bound.

4. Total amount of pilotage dues collected during the year, \$172.25; of which \$125.75 was paid by 3 sailing vessels, foreign, and \$66.50 by 2 steam barges and 1 schooner, British.

5. The pilotage as above was paid to the pilots who performed their duties as such to the respective vessels.

6. Four new licenses were issued during the year, and \$4.00 paid for 100 new copies of rules and regulations of the district.

JOHN C. ROSS, *Secretary,*
Buctouche Pilotage Authority.

6-7 EDWARD VII., A. 1908.

APPENDIX 34.

REPORT FOR THE PILOTAGE AUTHORITY OF CARAQUET, N. B., FOR
THE YEAR ENDING 31st DECEMBER, 1907.

CARAQUET, 31st December, 1907.

COL. F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR'—I have the honor to transmit my annual report of the pilotage authority of Caraquet for the year ending 31st Dec. 1907.,

STATEMENT of the Pilotages received in the Pilotage District of Caraquet, N. B., durin the year 1907

Name of vessel	Nation- ality.	Reg.	Ton- nage.	Date of of arrival.	Pilot Inwards.	Date of of Sailing.	Pilot Outwards	Am't. of Pilotage
Otto.....	Russian....	bri'tne	229	May 10	Vibert.....	May 20	Vibert.....	\$40.80
* Sigyn.....	Swedish....	"	336	May 4	"	June 30	"	24.20
Alliance....	British....	Sch.	99	Aug 21	"	Aug. 23	"	23.20
Alliance....	"	" ..	99	Oct. 5	"	Nov. 7	"	23.00
								\$111.20

*This vessel called at Caraquet on her way to Shippigan since she went off pilotage.

PHILIP RIVE,
Secretary, in account with Pilotage Authority

DR.	1906.	CR.	
To License Larose Gavuin.....	\$1.00	By Stationery.....	\$1.00
“ Jos. B. Chasson.....	1.00	Salary.....	3.00
“ Chs. Vibert.....	1.00		
“ Alex. J. Wilson,.....	1.00		
	<u>\$4.00</u>		<u>\$4.00</u>

PHILIP RIVE,
Secretary to Pilot Commissioners and Pilot Commissioner.

Caraquet, January 10th, 1908.

APPENDIX 35.

REPORT OF THE PILOTAGE AUTHORITY OF RESTIGOUCHE, N. B., FOR
THE YEAR ENDING DECEMBER 31, 1907.

CAMPBELLTON, N. B., January 9th, 1908.

F. GOURDEAU, Esq.,
Deputy Minister Marine and Fisheries,
Ottawa, Canada.

SIR,—I have the honor to hand you herewith in duplicate, a statement of the pilotage returns of the district of Restigouche duly signed by myself as Secretary-Treasurer, there being no Chairman elected since the resignation of Mr. Wm Currie.

Kindly acknowledge receipt and oblige,

Your obedient servant,

FRANK S. BLAIR,
Sec'y-Treas. Pilot Commissioners.

SESSIONAL PAPER No. 23.

CAMPBELLTON.

Pilots.	Tons.	Amount.	Commis- sion.	Net to Pilot.
Neill Neilson & Jos. Elslinger.....	13,169	1,190.71	\$35.72	\$1,154.99
Ed. Elslinger.....	7,555	576.30	17.28	559.02
John McNeill.....	9,330	566.16	16.98	549.18
Wm. Donahue.....	8,780	475.57	14.26	461.31
Robert McNeill.....	4,350	269.55	8.08	261.47
Dan. C. McNeill.....	2,924	222.70	6.68	216.02
	46,108	3,300.99	99.80	3,201.99

DALHOUSIE.

Neill Neilson.....	2,236	\$101.00	3.03	97.97
John McNeill.....	1,493	94.00	2.82	91.18
Dan C. McNeill.....	798	36.50	1.10	35.40
Ed. Elslinger.....	1,828	36.50	2.60	83.90
	6,355	318.00	9.55	308.45

RIVER LOUISON.

Robert McNeill.....	2,879	116.50	3.49	113.01
John McNeill.....	2,750	106.29	3.18	103.11
Ed. Elslinger.....	2,170	81.70	2.45	79.25
	7,799	304.49	9.12	295.37

RECAPITULATION.

Port.	No. ships.	Tons.	Amount.	Commis- sion.
Campbellton.....	56	46,108	\$3,300.99	99.00
Dalhousie.....	9	6,355	318.00	9.55
River Louison.....	8	7,799	304.49	9.12
	73	60,262	3,923.48	117.67

Age.	Pilot.	Gross. Amount.	Commis- sion.
66	Robert McNeill.....	\$386.05	11.57
51	Jos Elslinger.....		
42	Ed. Elslinger.....	744.50	22.33
40	Wm. Donahue.....	475.57	14.26
33	Neill Neilson.....	1,291.71	38.75
31	D. C. McNeill.....	259.20	7.78
28	John McNeill.....	766.45	22.98
		3,923.48	117.67

Jos Elslinger & Neill Neilson were in partnership,

FRANK S. BLAIR,

Secretary Treasurer.

CAMPBELLTON, N. B., 31st Dec. 1907.

APPENDIX 36.

REPORT OF THE PILOTAGE AUTHORITY OF ST. MARY'S AND LISCOMBE FOR THE YEAR ENDING DECEMBER 31, 1907.

LISCOMBE, December 31st, 1907

Deputy Minister of Marine & Fisheries,
Ottawa.

Sir,—We beg to submit our annual return for the year ending, 31st December, 1907

List of vessels which entered the Port of Liescombe, in the Province of Nova Scotia, liable to payment of Pilotage fees under the Pilotage Act, from January 1st, 1907 to December 31st, 1907.

LISCOMBE.

G. B. RILEY, PILOT, No. 3.

Date of Arrival.	Where from.	Rig.	Name of Vessel.	Port of Registry.	Tonnage.	Name of Master.	Pilotage Fees.
1907.							
Jan. 8.	New York.	Steamer.	Nanna.	Norway.	790	Capt. Nero.	\$ 23 00
" 9.	Halifax.	"	Briardenne.	Halifax.	1,727	" Crowe.	32 00
April 23.	"	"	"	"	1,727	" Crowe.	32 00
July 8.	Fredrickstad, Nor	Barque.	Canna.	Fredrickstad, Nor.	544	" Madsen.	19 00
							\$106 00

HENRY LANG, PILOT, No. 7.

Aug. 17.	Fio, Spain.	Steamer.	Neguri.	Spain.	1,223	Capt. Baird.	31 00
June 11.	Swansea.	"	Briardenne.	British	1,727	" Crowe.	32 00
Sept. 15.	Bristol, Eng.	Ship.	Savona.	"	1,583	Crossley.	20 00
" 25.	Ship Harbour.	Schooner.	John Maxwell.	American.	445	Foss.	23 00
							106 00

SESSIONAL PAPER No. 23.

REPORT OF THE PILOTAGE AUTHORITY OF ST. MARY'S AND LISCOMBE FOR THE YEAR ENDING DECEMBER, 31 1907.—*Concluded.*

EDWARD QUINN, PILOT, No. 1, ST. MARY'S.

May 2..	Archat, C.B.	Schooner	Helen Shaffner	Annapolis, N.S.	179	DeCosttee	14 00
13..	Boston	"	Lizzie H. Patrick	Boston	412	Breen	20 00
Nov. 2..	South Hampton	Barque	Argus	Fredrickstad.	561	Nelson	29 00
							\$265 00

SETH McKINLEY, PILOT, No. 5, LISCOMBE.

NO SHIPS.

JOHN BURNS, PILOT, No. 2, ST. MARY'S.

Made no returns yet.

WILLIAM PRIDE,
JAMES HEMLORD, Jr., *Secretary Commissioners.*

APPENDIX 37.

REPORT OF THE PILOTAGE AUTHORITY OF HALIFAX, N. S., FOR THE
YEAR ENDING 31st DECEMBER, 1907.

HALIFAX, N. S., January 8th, 1908.

The Deputy Minister Marine and Fisheries,
Ottawa.

SIR:—I beg to enclose accounts of the Halifax Pilot Commission of the year ending 31st December, 1907, as follows:

Receipts and Expenditures.
Superannuation Fund,
List of Pilots,
List of Pensioners,
Return of vessels inward and outward at port of Halifax.

I am, Sir,

You obedient servant,

FRANK J. PHELAN,
Secretary.

OFFICE OF COMMISSIONERS OF PILOTS,

HALIFAX, N.S., January 1, 1908.

RETURN of vessels inward at Port of Halifax, N.S., from January 1, 1907, to December 31, 1907, subject to pilotage.

BRITISH.

Schooners.	Barques.	Steamers.	Tonnage.	Amount.
119	7	670	1,233,618	\$17,424.50

FOREIGN.

Schooners	Barques.	Steamers.	Tonnage.	Amount.
51	10	143	124,607	\$3,498.75

SESSIONAL PAPER No. 23.

1907.		RECEIPTS AND EXPENDITURES.	
Jan.	1....	Balance.....	\$2,406.41
Dec.	31....	Interest.....	949.00
		Commission.....	1,989.91
		Inspection.....	40.00
		Outward Pilotage.....	1,767.12
			\$7,152.44
		Salary.....	\$ 800.00
		Rent.....	375.00
		Expense office.....	229.55
		Printing and Stationery.....	37.40
		Apprentices.....	424.00
		Legal expense.....	15.00
		Auditor.....	50.00
		Superannuation.....	1,979.52
		Balance.....	3,241.97
			\$7,152.44
1908.			
Jan.	1....	Balance.....	\$3,241.97

E. & O.E.

FRANK J. PHELAN,
Secretary.

OFFICE OF COMMISSIONERS OF PILOTS,
HALIFAX, N. S., January 1, 1908.

1907.		SUPERANNUATION FUND.	
Jan.	1....	Balance.....	\$30,851.84
		Commission.....	1,030.52
		Interest.....	949.00
			\$32,831.36
		Paid pensions.....	1,829.30
			\$31,002.06

E. & O.E.

FRANK J. PHELAN.
Secretary.

OFFICE OF COMMISSIONERS OF PILOTS.
HALIFAX, N. S., January 1st, 1908.

6-7 EDWARD VII., A. 1908.

List of pilots, Halifax District.

No.	Name.	Age.	Residence.
1	Jas. Fleming.....	68	Halifax.
4	Wm. Baker.....	72	"
5	L. Hayes.....	29	"
6	F. Thomas.....	31	Herring Cove.
7	B. Brackett.....	26	"
8	Wm. Hayes.....	33	"
10	Jno. Holland.....	26	Dartmouth.
12	Jas. Hanrahan.....	70	Ferguson's Cove.
14	Jno. Hayes.....	57	Halifax.
15	Jas. Spears.....	49	"
16	J. F. Beazley.....	48	"
17	Wm. Gorman.....	35	"
18	C. F. Martin.....	43	"
19	Wm. White.....	50	Ferguson's Cove.
20	Thos. Hayes.....	48	Halifax.
21	Thos. Reyno.....	47	"
22	F. MacKay.....	35	"
23	H. Latter.....	39	"

FRANK J. PHELAN, *Secretary.*

OUTPORTS.

Jos. Smith.....	65	Margaret's Bay.
D. Palmer.....	59	Ship Harbour.
R. Martin.....		Sheet Harbour.
Chas. Hilchey.....	73	Tangier.
Geo. Gilbert.....	56	Musquodoboit Harbour.
M. G. Marks.....	50	Ship Harbour.
W. Berrigan.....	62	Salmon River.
Wm. Smith.....	44	Necum Teuch.

FRANK J. PHELAN, *Secretary.*

OFFICE OF COMMISSIONERS OF PILOTS.

HALIFAX, N. S., January 1st., 1908.

List of pensioners, Halifax Pilotage District.

Name.	Age.	Residence.	Amount.
Flemming, John.....	94	Ketch Harbour.....	\$ 200.00
Hayes, Patrick.....	85	Herring Cove.....	200.00
Flemming, J. W.....	45	Halifax, N.S.....	200.00
Beazley, Wm.....	68	".....	200.00
Holland, Jas.....	71	Portugese Cove.....	200.00
Martin, Mrs. C.....	75	Halifax, N.S.....	75.00
Johnson, Mrs. J.....	75	Bear Cove.....	75.00
Glazebrook, Mrs. C.....	62	Boston.....	75.00
Martin, Mrs. D.....	49	Halifax.....	75.00
" Catherine.....	14	".....	15.00
Gallagher, Mrs. B.....	45	".....	75.00
" W. L.....	10	".....	15.00
" Catherine.....	7	".....	15.00
Munroe, Mrs. H.....	70	".....	75.00
Reyno, Mrs.....		Herring Cove.....	75.00
Holland, Mrs.....	58	Duncan's Cove.....	75.00
Bayers, Mrs.....		Boston.....	75.00
			\$ 1,750.00

OFFICE OF COMMISSIONERS OF PILOTS.

HALIFAX, N. S., January 1st, 1908.

SESSIONAL PAPER No. 23.

RETURN of vessels outward at Port of Halifax, N.S., from January 1, 1907, to December 31, 1907, subject to pilotage.

BRITISH.

Schooners.	Barques.	Steamers.	Tonnage.	Amount.
25	7	635	1,195,673	\$9,311.00

FOREIGN.

Schooners.	Barques.	Steamers.	Tonnage.	Amount.
.....	7	140	116,096	\$1,767.10

FRANK J. PHELAN,
Secretary.

OFFICE OF COMMISSIONERS OF PILOTS,
HALIFAX, N. S., 1st January, 1908.

APPENDIX 38.

REPORT OF THE PILOTAGE AUTHORITY OF MIRAMICHI, N. B., FOR
THE YEAR ENDING DECEMBER 31, 1907.

NEWCASTLE, MIRAMICHI, N. B., January 3, 1908.

F. GOURDEAU, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to hand you herewith the pilotage returns for the district of Miramichi, N. B., for the year ending December 31, 1907.

I am, Sir, your obedient servant,

BYRON N. CALL,
Secretary-Treasurer to Pilot Commissioners.

6-7 EDWARD VII., A. 1908.

PILOTAGE RETURNS for the Pilotage District of Miramichi, N. B., year ending
December 31st, 1907.

Class of Vessel.	No.	Total.
Vessels reported inward—		
British steamers.....	42	
“ sailing vessels.....	14	
Foreign steamers.....	26	
“ sailing vessels.....	21	
		103
Vessels reported outward—		
British steamers.....	42	
“ sailing vessels.....	13	
Foreign steamers.....	26	
“ sailing vessels.....	21	
		102
Vessels removed—		
British steamers.....	15	
“ sailing vessels.....		
Foreign steamers.....	8	
“ sailing vessels.....	13	
		36

BYRON N. CALL,
Secretary Treasurer to Pilot Commissioners.

PILOTAGE RETURNS for the Pilotage District of Miramichi, N. B., year ending
December 31st, 1907.

Class of Vessel.	Amount.	Total.
Total amount of pilotage inward—		
British steamers.....	\$2,233.78	
“ sailing vessels.....	329.70	
Foreign steamers.....	1,572.64	
“ sailing vessels.....	579.98	\$4,716.10
Total amount of pilotage outward—		
British steamers.....	2,132.84	
“ sailing vessels.....	294.00	
Foreign steamers.....	1,798.02	
“ sailing Vessels.....	744.00	\$4,968.86
Total amount for removals—		
British steamers.....	114.00	
“ sailing vessels.....		
Foreign steamers.....	52.00	
“ sailing vessels.....	153.63	
		319.63
		\$10,004.59

SESSIONAL PAPER No. 23.

NATIONALITIES of Vessels piloted Inwards during year 1907.

	No.		No.
British.....	56	Norwegian.....	31
Danish.....	2	Russian.....	2
French.....	1	Swedish.....	7
German.....	4		
			103

BYRON N. CALL,

Secretary Treasurer to Pilot Commissioners.

RATES of pilotage chargeable at Miramichi N. B., on all vessels British and Foreign,
year ending December 31st 1907.

When inward bound.....	\$2.25 per foot.
And in addition to the above for all vessels propelled wholly or in part by steam	2c. per reg. ton.
When outward bound.....	\$2.00 per foot.
And in addition to the above for all vessels propelled wholly or in part by steam	2c. per reg. ton.
For the removal and mooring of vessels of over 300 tons.....	\$4.00.
And where the distance of removal exceeds four miles, 50 per cent. additional on the above rate.	
Removals within a distance of one mile are not compulsory, but when pilots are requested by masters to perform this service the charge is.....	\$4.00.
Steam tug boats towing one or more barges with cargo inwards, may depart out- wards after having paid full pilotage for the tug and barges inwards, with- out paying any outward pilotage, except on the tug.	

PILOTAGE RETURNS for the Pilotage District of Miramichi, N. B., year ending
December 31st, 1907.

No.	Names of Pilots.	Age.	For what Service.	Remarks.
2	Louis Jimmo.....	53	Full license.	
6	Francis Martin.....	73	"	
7	Maxime Martin.....	62	"	
10	Alexander Wilson.....	61	"	
11	Robert J. Walls.....	56	"	
22	William Walls, Sr.....	53	"	
26	John McCallum.....	55	"	
27	James Nowlan.....	56	"	
29	George Sutton.....	56	"	
30	James A. Nowlan.....	52	"	
31	George T. Tait.....	50	"	
32	Joseph Jimmo.....	52	"	
33	James McCallum.....	63	"	
35	John Martin.....	48	"	
36	Asa Walls.....	48	"	
37	William Walls, Jr.....	50	"	
38	John Nowlan.....	51	"	
41	Michael J. Jimmo.....	40	"	
42	George M. Nolan.....	51	"	
43	Chris. C. McLean.....	60	"	Died in 1907.
44	George Savoy.....	63	"	

B. N. CALL,

Secretary-Treasurer to Pilotage Commissioners.

6-7 EDWARD VII., A. 1908.

List of Pilot Boats Licensed.

No.	Name.	Tonnage.	Name of Captain.	First Licensed.
15	<i>Princess Louise</i>	20.85	Asa Walls.....	May, 1879
16	<i>Senator Snowball</i>	30.95	Jas. A. Nowlan.....	" 1897
17	<i>Mabel</i>	22.00	Geo. Savoy.....	" 1900

B. N. CALL,
Secretary-Treasurer to Pilotage Commissioners.

THE Miramichi Pilots in Account with B.N. Call, Secretary-Treasurer.

1907.	DR.	
May 27..	To paid J. & A. McMillan, St. John, N.B., pilot ledger.....	\$ 3.50
" 27..	Cost of draft above remittance .....	.08
June 18..	Express charges on pilot ledger .....	.45
" 18..	J. B. Snowball Co., account sch. <i>Princess Louise</i>	16.71
" 18..	J. B. Snowball Co., account sch. <i>Senator Snowball</i>	7.03
" 18..	Jno. McDonald & Co., lumber for schooners.....	1.70
" 18..	R. J. Walls repairing buoys, 1907	41.05
July 18..	Miramichi Steam Navigation Co., tickets	3.75
" 18..	Jas. A. Nolan, repairing sch. <i>Senator Snowball</i>	40.00
" 18..	Jas. A. Nowlan, amount, Thos. Fohran & Co., account, sails and anchor sch. <i>Senator Snowball</i>	81.76
Sept. 18..	Geo. Stothart account sch. <i>Senator Snowball</i>	4.50
" 18..	Geo. Stothart account sch. <i>Princess Louise</i>	15.74
" 18..	W. S. Loggie Co., account sch. <i>Princess Louise</i>	41.70
" 18..	R. J. Walls' horse hire \$2.25, cleaning pilots office, etc, \$2.59 ..	4.84
" 18..	Geo. P. Searle, rent pilots' office to April, 1908	24.00
" 18..	Asa Walls fitting out sch. <i>Princess Louise</i>	43.00
" 18..	Draft flavor J. J. Yorston, Pictou, N.S., repairs to sch. <i>Senator Snowball</i>	72.24
Oct. 18..	Asa Walls, balance due J.J. Yorston, Pictou, N.S., repairs to sch. <i>Princess Louise</i>	9.75
" 18..	A. C. McLean account sch. <i>Senator Snowball</i>	5.51
" 18..	A. C. McLean, account sch. <i>Princess Louise</i>	10.08
" 18..	R. J. Walls' telegrams, horse hire and fuel for pilots' office ..	2.75
Nov. 18..	Edward Burke, blacksmith work schooners.....	15.05
" 26..	Tug Mascot & Owners towage light ship to station and back to winter quarters.....	30.00
" 27..	W. S. Loggie Co., account sch. <i>Senator Snowball</i>	46.51
" 27..	E. Johnson stationer, etc., for pilots' office	4.64
" 30..	R. J. Walls, expense bringing Pilot Sutton back from S.S. Bygland.....	5.00
Dec. 3..	Anslo Bros., printing pilot forms.....	4.75
" 3..	Secretary-Treasurer, postage and stationery	3.80
" ..	Geo. M. Nolan his expenses returning from piloting out S.S. Ostergattland.....	4.00
" 9..	B. N. Call, Secretary-Treasurer Commission, collecting \$10,404.59 at 3 per cent.....	312.14
" 9..	Seventeen pilots, \$8,018.17, and 3 pilots, \$1,530.39.....	9,548.56
		<hr/>
		\$10,404.59
1907.	CR.	
Dec. 9..	By amount of inward pilotage	\$ 4,716.10
" 9..	" outward	4,968.86
" 9..	" removals.....	319.63
" 9..	" collected earnings outside.....	400.00
		<hr/>
		\$10,404.59

J. C. MILLER, Chairman.

B. N. CALL,
Secretary-Treasurer to Pilotage Commissioners.

SESSIONAL PAPER No. 23.

APPENDIX 39.

REPORT OF THE PILOTAGE AUTHORITY OF ST. JOHN, N. B., FOR THE
YEAR ENDING 31ST DECEMBER, 1907.

DEAR SIR,—Inclosed herewith please find the annual returns for pilotage, for this district, for the year ending the 31st December, 1907, all of which, I trust you may find in order.

I have the honour to be, Sir,

Your obedient servant,

J. U. THOMAS, *Secretary*.

F. GOURDEAU, Esq.,

Deputy Minister of Marine and Fisheries,
Ottawa.

OFFICE of Pilotage Authority, District of St. John, N.B., December 31ST, 1907.

REVENUE ACCOUNT.		
Receipts—		
Licenses to 22 pilots at \$5.....	\$ 110.00	
" 5 boats at \$10.....	50.00	
25 cents per foot on outward pilotage from St. John, to date	2,258.85	
25 cents per foot on outward pilotage from Musquash, to date	14.75	
		\$2,433.60
Expenditures—		
Auditing accounts for 1906.....	25.00	
Stationery, etc.....	14.80	
Office rent.....	100.00	
Salary Secretary-Treasurer.....	1,000.00	
		\$1,139.80
Amount transferred to Pilot Fund Account.....		1,293.80
		\$2,433.60

J. U. THOMAS, *Secretary*.

STATEMENT of Pilot Fund Account for Year ended December 31, 1907

Dr.		
Pensions paid to pilots.....	\$ 656.25	
" widows and children.....	1,387.50	
Funeral expenses, 2 pilots.....	40.00	
		\$2,083.75
To balance.....		7,075.78
		9,159.53
Cr.		
By balance December 31, 1906.....		7,691.08
By interest on Dominion Savings Bank deposits, 9 months to April 1, 1907.....	174.65	
By amount from revenue account.....	1,293.80	
		1,468.45
		\$9,159.53
By balance to credit of Pilot Fund December 31, 1907.		\$7,075.78

T. U. THOMAS, *Secretary*.

6-7 EDWARD VII., A. 1908.

OFFICE of Pilotage Authority, District of St. John, N. B., 31st December, 1907.

STATEMENT of Special Fund for the Year ended December 31, 1907.

Dr.		
To amount paid on account expenses re suit Cumberland Railway & Coal Co. vs. The Saint John Pilot Commissioners.....	120.03	b 120.03
Balance.....		2,972.76
		<u>\$3,092.79</u>
Cr.		
By balance December 31, 1906,		1,299.36
By 5 per cent. from net earnings of Pilots for Year ending December 31, 1907.....	1,793.43	1,793.43
		<u>\$3,092.79</u>
By balance to credit of Special Fund December 31, 1907.....		\$2,972.76

J. U. THOMAS,
*Secretary.*STATEMENT of Funds, St. John Pilot Commissioners as per *Auditors' report* December 31, 1907.

INVESTMENT ACCOUNT.		
Dominion Savings Bank per pass-book, No. 744.....	\$ 5,541.84	
Dominion Savings Bank, per pass-book, No. 10260.....	2,396.14	
		<u>\$7,937.98</u>
CURRENT ACCOUNT.		
Bank of New Brunswick.....		2,110.56
		<u>\$10,048.54</u>

J. U. THOMAS,
Secretary.

Return of vessels arriving at the Port of St. John, N.B., (paying pilotage) for the year ending the 31st December, 1907.

	British.	Foreign.	Total.
Schooners.....	104	180	284
Brigs and brigantines.....	1		1
Ships.....		2	2
Barques and barquentines.....	1	14	17
Steamships.....	215	56	271
	<u>323</u>	<u>252</u>	<u>575</u>
Amount of pilotage received.....	\$28,911.21	\$ 9,166.00	\$38,077.21

J. U. THOMAS,
Secretary.

SESSIONAL PAPER No. 23.

LICENSED PILOTS, 1906-07.

Name.	Age.	Residence.	Remarks.
Bennett, James.....	50	St. John, N.B.	Died July 15, 1907.
Cline, Richard.....	82	"	
Cline, Alfred.....	50	"	
Cline, Richard B.....	37	"	
Doyle, James.....	70	"	
Doherty, Joseph.....	61	"	
Lahey, William.....	78	"	
Lahey, Frank L.....	36	"	
Miller, James H.....	30	"	
Murray, William.....	33	"	
Quinn, William.....	60	"	
Rogers, Bartholomew.....	50	"	
Spears, James S.....	62	"	
Spears, Henry.....	56	"	
Spears, Martin.....	50	"	
Scott, Richard.....	56	"	
Scott, William.....	51	"	
Stone, Thomas J.....	54	"	
Sherrard, John L.C.....	73	"	
Thomas, John S.....	59	"	
Traynor, Thomas.....	54	"	
McAnulty, John.....	69	Musquash, N.B.....	Licensed for Muquash only.

J. U. THOMAS, *Secretary.*

PILOTS' Individual Earnings for the year 1907.

Total amount pilotage received.....		\$38,077.21
LESS—25c. per foot from outward pilotage.....	2,258.85	
5 p. c. of nett pilotage.....	1,793.43	
		4,052.28
<i>Contra.</i>		\$34,024.93
Bennett, James.....	2,193.24	
Cline, Richard.....	91.20	
Cline, Alfred.....	362.20	
Cline, Richard B.....	1,654.79	
Doyle, James.....	1,681.60	
Doherty, Joseph.....	3,054.21	
Lahey, William.....	919.77	
Lahey, Frank L.....	1,806.77	
Miller, James H.....	1,740.12	
Murray, William.....	1,936.06	
Quinn, William.....	1,819.83	
Rogers, Bart.....	2,883.53	
Spears, James S.....	645.18	
Spears, Henry.....	1,968.58	
Spears, Martin.....	1,606.03	
Scott, Richard.....	1,077.95	
Scott, William.....	1,374.17	
Stone, Thomas J.....	2,579.94	
Sherrard, John L.C.....	1,466.60	
Thomas, John S.....	1,976.46	
Traynor, Thomas.....	1,186.70	
		\$34,024.93

J. U. THOMAS, *Secretary.*

6-7 EDWARD VII., A. 1908.

APPENDIX 40.

RETURN OF THE PILOTAGE AUTHORITY OF SHEDIAC, N. B., FOR THE
YEAR ENDING 31ST DECEMBER, 1907.

SHEDIAC, N. B., 23rd January, 1908.

Col. F. GOURDEAU,

Sir,—I have the honour to submit my annual report of the Pilotage Authority of Shediac for the year ending 31st December, 1907.

Paul P. White, age 64.

Olf Hendrickson, age 47.

The rates and dues were paid direct to the pilots, and not into the treasury of the Pilotage Authority.

The following are the names of the vessels that entered the Port of Shediac during the year 1907, also the nationality and the amount of pilotage dues paid by each:—

Glen, Norwegian.	\$ 40.50
Steamer <i>Hobnalia</i> , British.....	95.47
Barque, <i>Kragira</i> , Narsk.	54.50
Barque <i>Passpastaut</i> , Narsk.....	53.00
Schooner <i>Bassitoland</i> , British.....	18.00
Barque <i>August Leffler</i> , Norwegian.....	43.50

\$304.97

You will observe that this amount of \$304.97 is exceedingly small when divided between two Pilots of the Port.

If an additional amount is not granted as requested by the Pilotage Commission, I fear we will find it difficult to secure services of qualified Pilots, especially in view of the fact that tramp steamers are beginning to enter this Port, resulting in a large loss to the pilots as compared with previous years. Would you kindly advise me if this request has been favourably considered?

I am, Sir, Your obedient servant,

E. B. McDONALD,
Secretary Pilotage Commission.

APPENDIX No. 41.

REPORT OF THE PILOTAGE AUTHORITY OF AMHERST, N. S., FOR THE
YEAR ENDING DECEMBER 31, 1907.

AMHERST, 11th January, 1908.

Col. F. GOURDEAU,

Deputy Minister of Marine and Fisheries,

Ottawa, Ontario.

Sir,—The following vessels entered and cleared from Northport laden with deal and scantling for Great Britain during the year 1907.

"Margareta,"	1,248 tons.
"Germanie,"	1,178 "
"Superb,"	730 "
"Senora,"	30 "
"Arabella,"	915 "
"March,"	1,250 "

The vessels were foreign.

The coasting trade does not come under my jurisdiction, as coasters take no pilots. I am, Sir, Your obedient servant,

BURPEE ROCKWELL,
Secretary Pilotage Commission, Northport and Tidnish.

SESSIONAL PAPER No. 23.

APPENDIX No. 42.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF PARRSBORO, N. S., FOR THE YEAR ENDED 31ST DECEMBER, 1907.

Col. F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

Sir,—I beg to submit my annual report for the year 1907.

5 British Vessels paid.....	\$ 175.50
5 Foreign Vessels paid.....	176.87
<hr/> 10	<hr/> \$ 352.37
 Paid Pilot Joseph Anderson.....	 \$ 327.72
Office contingencies.....	15.00
Secretary for salary.....	9.65
	<hr/> \$ 352.37

Pilotage non-compulsory, and no change in rates or conditions during the year.

E. GILLESPIE,
Secretary.

APPENDIX No. 43.

REPORT OF THE PILOTAGE AUTHORITY OF ARICHAT, C. B., FOR THE YEAR ENDING DECEMBER 31, 1907.

ARICHAT, C. B., January 2, 1907.

F. GOURDEAU, Lt.-Col.,
Deputy Minister of Marine and Fisheries.
Ottawa.

Sir,—I beg to make my report for the Pilotage Authority of Arichat, N. S., for the year ending 31st December, 1907. There was no pilotage done, as the sailing vessels are getting out of date and steamers generally get clear of pilotage.

Yours truly,
ISIDORE LEBLANC,
Secretary Pilotage Commission.

APPENDIX No. 44.

HARBOUR MASTERS.

TABLE showing the names of Ports proclaimed under certain Dominion Acts, the provisions of which are found in the Canada Shipping Act, chapter 113, Revised Statutes of Canada, 1906, for the appointment of harbour masters; the dates of proclamation; the names of the harbour masters appointed; the dates of the appointment of harbour masters; the amounts which each of their salaries is not to exceed; the amount of fees collected by each of them during the calendar year ended December 31, 1907, and the overplus, if any, paid to the credit of the Receiver General.

FOR THE YEAR ENDED DECEMBER 31ST, 1907.

PROVINCE OF ONTARIO.

Names of Port.	Harbour Masters.	Date of Appointment	Amount Collect'd	Rem't'n fr. fees Allowed	Amount p'd to Cr. R.G.
Amherstburg	M. Barrett	Dec. 29, '06	173.00	200 00	
Bronte	Jas. Wilson	Oct. 26, '05	3.00	200 00	
Byng Inlet	C. E. Begin	Mar. 24, '08		200 00	
Collingwood	Henry Foreman	May 5, '04	196.00	200.00	
Depot Harbour	W. H. Hoppins	April 15, '07	120.00	200.00	
Fort William	James McAllister	May 12, '06	537.00	600.00	
French River	E. Barron		30.50	200.00	
Goderich	D. McKay	April 21, '08	85.50	300.00	
Little Current	J. F. May	July 19, '06	29.00	200.00	
Meaford	S. McClain	July 16, '02	43.50	200.00	
Midland	J. White	July 13, '97	177.50	300.00	
Oshawa	W. T. Henry	Aug. 10, '04	Nil	300.00	
Parry Sound	J. D. Hall	Mar. 8, '06	47.50	200.00	
Penetanguishene	P. Light	June 7, '06	25.50	200.00	
Port Arthur	B. Guérard	May 21, '97	238.00	200.00	38.00
Port Stanley	F. E. Shephard	Jan. 15, '98	40.00	200.00	
Rondeau	W. R. Fellows	Dec. 17, '88	23.00	100.00	
Southampton	W. H. Johnston	Oct. '82	23.50	100.00	
	Geo. McVittie	Depy. H. M			
Sarnia	R. McAdam	May 3, '86	Nil	300.00	

PROVINCE OF QUEBEC.

Amherst Harbour	J. Cassidy	Sept. 2, '78	13.00	200.00
Anse à Gascon	J. Mourant	June 28, '05	Nil	100.00
Bersimis	L. Thibault	Dec. 13, '05	Nil	200.00
Bonaventure	Alex. Bourque	June 5, '05	37.00	100.00
Carleton	B. Leclerc	May 15, '05	Nil	200.00
Caplin	T. Bourgeois	Mar. 20, '07		100.00
Chicoutimi	A. Sturton	June 8, '86	47.00	200.00
Grand Entry	J. A. Chenell	Feb. 19, '92		200.00
Grand River	Geo. Beaudin	April 8, '00	7.00	100.00
Gaspe	F. J. Eden	April 3, '89		500.00
House Harbour	C. Lafrance	Dec. 10, '96	21.50	200.00

SESSIONAL PAPER No. 23.

PROVINCE OF QUEBEC.—*Continued.*

Name of Port.	Harbour Masters.	Date of Appointment.	Amount Collected.	Rem't'n for fees Allowed.	Amount paid to Cr. R.G.
Maria.....	A. Cyr.....	Mar. 29, '05	Nil	100.00	
Matane.....	L. J. Levasseur.....	Dec. 12, '96	89.50	200.00	
Malbaie.....	P. Lawrence		25.00	200.00	
Metis.....	J. W. Ferguson.....	Mar. 10, '96		200.00	
New Carlisle	J. Chisholm.....	April 22, '02	1.00	200.00	
New Richmond... ..	F. X. Cormier.....	April 15, '02	25.00	200.00	
Nouvelle.....	M. Casey.....	Jan. 3, '03	8.00	200.00	
Oak Bay.....	T. Harper.....	July 12, '04	35.00	200.00	
Paspebiac.....	W. L. Kempffer....	Sept. 21, '00	29.50	150.00	
Perce.....	E. Donohue.....	Oct. 10, '03	7.50	100.00	
Port Daniel.....	B. Langlois.....	Feb. 26, '07	16.50	200.00	
Rimouski.....	A. P. St. Laurent... ..	May 13, '96	81.50	200.00	
Riv. du Loup.....	F. E. Gilbert.....	Oct. 5, '02	50.00	100.00	
St. Godfroy.....	J. Grenier.....	June 5, '05	Nil	100.00	
St. Thomas.....	L. Dionne.....	Oct. 22, '96	76.00	200.00	
St. Johns.....	G. H. Farrar.....	Mar. 20, '97	814.00	550.00	264.00
Sorel.....	J. A. Prault.....	June 6, '01	509.50	400.00	109.50
Tadousac.....	A. Gingras.....	June 6, '06	57.00	200.00	
Trois Pistoles....	E. T. Petigrew.....	April 11, '99	Nil	150.00	

PROVINCE OF NEW BRUNSWICK.

Alma.....	J. W. Parson.....	Mar. 2, '98	14.50	100.00	
Bathurst.....	Capt. M. Daly.....	April 15, '07	35.00	200.00	
Black's Harbour & Beaver Harbour	E. W. Cross.....	Sept. 17, '83	14.50	100.00	
Buctouche.....	H. Hutchison	April 17, '97	14.50	100.00	
Campbellton.....	G. E. Asker.....	May 5, '04	127.50	200.00	
Campobello.....	W. E. Sulis.....	Dec. 16, '92			
Cape Tormentine..	M. S. Treene.....	May 13, '01	23.50	200.00	
Caraquet.....	J. A. Albert.....	Nov. 7, '05	5.50	150.00	
Chatham.....	R. J. Walls.....	April 13, '98	152.50	300.00	
Cocagne.....	Thos. Bourque	June 23, '05	.50	100.00	
Dalhousie.....	W. S. Smith.....	Mar. 19, '88	148.50	200.00	
Dorchester.....	J. Shea.....	Oct. 25, '00	11.00	200.00	
Fairhaven.....	A. Calder.....	July 30, '01	12.00	200.00	
Grand Manan No.	J. E. Gaskell.....	Mar. 20, '07	Nil	100.00	
Grand Harbour ...	T. Ingalls.....	April 19, '07	5.50	100.00	
Gull Rock Channel	Geo. A. Johnson....	April 27, '04	Nil	100.00	
Harvey.....	Wm. Wood.....	June 9, '03	28.50	100.00	
Heron Channel....	Duncan Robertson	July 15, '97	29.50	200.00	
Hillsborough.....	J. O'Shaughnessy ..	April 13, '98	31.00	150.00	
Hopewell Cape....	J. H. Christopher... ..	April 13, '98	42.50	200.00	
Ledge of St. Stephens.....	Wm. McBean	June 12, '94		100.00	
Letete, etc.....	H. W. Harris.....	Feb. 16, '06	9.00	100.00	

PROVINCE OF NEW BRUNSWICK.—Continued.

Name of Port.	Harbour Masters.	Date of Appointment.	Amount Collected.	Rem't'n from fees Allowed.	Amount paid to Cr. R. C.
Little Shippegan & Miscou Gully...	J. Beaudin.....	Oct. 27, '06	Nil	100.00	
Moncton.....	T. Coffey.....	April 12, '02	16.50	200.00	
Musquash.....	J. McNulty.....	Sept. 28, '96	6.00	100.00	
Newcastle.....	J. Russell.....	June 27, '04	136.50	300.00	
Pokemouche.....	M. Landry.....	May 13, '01	1.00	100.00	
Port Elgin & Baie Verte.....	Chas. Trenholme...	April 3, '07	1.00	200.00	
Richibucto.....	J. Jardine.....	May 11, '74	23.00	200.00	
Sackville.....	E. Chase.....	May 11, '04	25.00	200.00	
St. Andrews.....	J. Wren.....	May 6, '84	109.00	100.00	9.00
St. George.....	Geo. McKenzie....	May 10, '00	41.00	100.00	
St. Martin & Quaco	J. R. McDonough...	July 16, '02	68.00	100.00	
Seal Cove.....	J. Warren Wooster	April 19, '07	.....	100.00	
Shediac.....	A. McQueen.....	May 19, '76	24.00	300.00	
Shippegan.....	J. Degrâce.....	April 14, '03	8.50	100.00	
Tracadia.....	T. Savoy.....	Sept. 23, '89	9.00	100.00	
Waterside.....	W. C. Anderson...	May 24, '05	12.00	100.00	
Whitehead.....	A. Cheney.....	April 19, '07	.50	100.00	
West Isles.....	B. Simpson.....	May 27, '05	Nil	200.00	

PROVINCE OF NOVA SCOTIA.

Abbot's Harbour..	F. D. Entremont...	May 23, '01	7.50	200.00	
Advocate.....	J. W. Knowlton...	Feb. 11, '08	9.50	100.00	
Amherst.....	F. A. Cates.....	April 3, '07	35.00	300.00	
Annapolis.....	J. Lindgren.....	July 7, '98	45.50	200.00	
Apple River.....	Robt. D. Field.....	Sept. 9, '90	27.50	200.00	
Arichat.....	B. Gerrior.....	May 23, '05	28.00	200.00	
Baddeck.....	A. B. Morrison....	Aug. 3, '03	3.00	100.00	
Barrington.....	B. Kenny.....	July 6, '93	27.50	200.00	
Bayfield.....	J. McDonald.....	July 11, '79	Nil	200.00	
Bay St. Lawrence	R. G. Zwicker.....	April 21, '87	.....	200.	
Bear River.....	Wm. McFadden....	Sept. 27, '97	27.00	100.00	
Beaver Harbour..	H. Hawbolt.....	Sept. 22, '88	11.00	100.00	
Big Harbour.....	D. McKenzie.....	April 18, '08	Nil	100.00	
Bridgewater...	W. Oakes.....	Jan. 28, '96	183.00	100.00	83.00
Big Bras d'Or...	J. McLean.....	Aug. 13, '03	.50	200.00	
Big Pond.....	Vacant				
Cape Canso.....	G. Oliver.....	Feb. 14, '05	96.00	150.00	
Cape Negro.....	A. D. Perry.....	May 18, '81	9.00	200.00	
Chester.....	A. C. Corkum.....	July 8, '96	15.00	100.00	
Cheticamp.....	F. Aucoin.....	April 15, '76	6.00	100.00	
Clark Harbour...	J. G. Nickerson...	Mar. 23, '04	57.00	200.00	
Clementsport...	J. M. LeCain.....	Oct. 18, '98	9.00	150.00	
Crow Harbour					
D'Escousse.....	M. Martell.....	April 22, '02	9.50	100.00	

SESSIONAL PAPER No. 23.

PROVINCE OF NOVA SCOTIA.—*Continued.*

Name of Port.	Harbour Masters.	Date of Appointment.	Amount Col-lected.	Rem't'n from fees Allowed.	Amount Paid to Cr. R. C.
Digby.....	H. Anderson.....	June 19, '02	67.00	200.00	
East Bay.....	D. McInnis.....	April 5, '86		100.00	
Fourchie.....	Vacant				
Gabarus.....	J. W. Hardy.....	Nov. 2, '86	.50	100.00	
Glasgow and Cape Breton ...	A. McQuarrie	Oct. 30, '80	43.00	300.00	
Pier, Sydney....					
Guysboro.....	A. M. Peart.....	Feb. 11, '02	4.00	100.00	
Halifax.....	J. E. Butler.....	Sept. 21, '93	1523.00	1800.00	
Hantsport.....	Wm. McCulloch....	Jan. 17, '92	171.00	300.00	
Ingonish No. Bay	Vacant				
Ingonish So. Bay	J. Doucett.....	April 30, '01	10.00	100.00	
Ingram River....	E. Huntly.....	Jan. 19, '07	44.00	100.00	
Inter. Pier Sydney	M. J. Neville.....	Oct. 30, '80	355.00	300.00	55.00
Isaac's Harbour...	T. D. Cook.....	June 19, '00	18.50	100.00	
Jeddore.....	E. Baker.....	Dec. 3, '03	17.00	100.00	
Jordan Bay.....	F. Thorburn	May 11, '01	88.50	150.00	
Kelly Cove.....	J. Kenny.....	April 6, '08	Nil	100.00	
LaHave or					
Getson's Cove...	G. H. Zwicker.....	Feb. 25, '75	37.50	300.00	
L'Ardoise Upper & Lower Lingan...	Geo. Burke.....	Aug. 29, '84	4.00	100.00	
Liscombe.....	L. Wilson.....	Feb. '20, '00	45.50	200.00	
Little Bras d'or Lake between McKay's Point & Grand Narrows	D. J. Campbell....	April 17, '99	Nil	100.00	
Little Bras d'Or between McKay's Point and Was- habuck River...	V. McLean.....	Sept. 23, '07	Nil	100.00	
Little Glace Bay...	E. Douglass Rigby	May 8, '84	17.00	200.00	
Little Narrows to ranberry Point	K. McLennan.....	Nov. 1, '97	Nil	100.00	
Liverpool.....	J. Ryan.....	Dec. 22, '06	113.50	200.00	
Lockport.....	G. J. Locke.....	April 2, '06	8.50	100.00	
Louisburg.....	H.C.V. Levatte....	Oct. 13, '98	478.50	200.00	128.50
Louisburg.....	J. Townsend, D.H.M	May 1, '99		150.00	
Lunenburg.....	J. Loye.....	Dec. 10, '96	138.00	150.00	
Mabou.....	J. McInnis.....	July 11, '00	3.00	100.00	
Mahone Bay.....	A. Hyson.....	Feb. 18, '08	18.50	200.00	
McNair's Cove...	R. McEachern....	Mar. 8, '75		150.00	
Marble Mountain..	D. McDonald.....	July 26, '92	2.50	200.00	
Margaretsville...	J. McGranahan....	May 29, '06	1.00	100.00	
Margaret's Bay...	H. C. Garrison...	Dec. 14, '01	5.50	100.00	
Margaree.....	M. A. Dunn.....	Feb. 14, '05	1.00	100.00	
Marie oseph.....	C. Dixon.....	Feb. 2, '07	3.50	100.00	

PROVINCE OF NOVA SCOTIA.—*Continued.*

Name of Port.	Harbour Masters.	Date of Appointment.	Amount Col-lected.	Rem't'n from fees Allowed.	Amount paid to Cr. R. C.
Merigomish.....	D. McGregor.....	May 22, '93	2.00	100.00	
Meteghan Harbour	J. McLair.....	Nov. 17, '06	14.50	100.00	
Meteghan River ..	Vacant				
Musquodoboit.....	T. Williams.....	May 31, '05	6.00	100.00	
New Haven	Vacant				
Neil's Harbour....	R. Payne.....	July 15, '05	8.00	100.00	
Noel.....	S. O'Brien.....	Oct. 26, '05	12.00	200.00	
Northport.....	J. Davis.....	Dec. 21, '02	29.50	100.00	
North West Cove					
Coleman's Cove					
and Aspostgan					
Harbour.....	P. Boutilier.....	June 30, '92		200.00	
Parrsboro.....	R. T. Smith.....	April 30, '92	155.00	300.00	
Petit de grat.....	S. Boudrot.....	June 5, '95	14.00	200.00	
Petite Riviere					
Bridge.....	J. N. Parks.....	April 27, '88	10.00	100.00	
Port George.....	Vacant				
Port Greville.....	I. Beach.....	May 3, '07	41.50	200.00	
Port Hawkesbury	D. W. Hennessey...	July 9, '75	117.00	200.00	
Port Hood.....	J. H. Murphy.....	July 9, '75	2.00	200.00	
Port Latour.....	Wm. Sholds.....	Feb. 15, '98	15.00	200.00	
Port Lorne.....	F. Beardsley.....	June 9, '97	2.50	200.00	
Port Maitland.....	J. Ellis.....	Dec. 10, '96	5.70	200.00	
Port Morien.....	H. McDonald.....	Mar. 3, '79	11.50	400.00	
Port Mulgrave ...	D. Kennedy.....	Sept. 9, '03	22.50	200.00	
Port Medway	J. Hopkins.....	Feb. 13, '03	20.00	200.00	
Pubnico.....	D. Q. Amireau	Sept. 27, '82	33.50	100.00	
Pugwash.....	G. N. Allen.....	May 15, '07	26.50	100.00	
Riverport.....	T. J. C. Creaser... ..	Jan. 8, '01	39.00	100.00	
Riviere Bourgeoise.	E. C. Bouchie.....	April 19, '86	4.00	100.00	
River Hebert.	W. Y. Theal	July 24, '05	22.50	100.00	
River John	H. Campbell.....	June 11, '91	Nil	100.00	
St. Ann's Bay.....	G. E. Fader.....	Sept. 21, '06	.50	200.00	
St. Ann's Harbour	A. Carmichael.....	Sept. 21, '06	16.00	200.00	
St. Mary's River..	T. Mills.....	Feb. 25, '07	15.00	200.00	
St. Peter's.....	P. McNeil.....	Sept. 17, '83	74.50	200.00	
Sambro.....	B. Smith.....	May 27, '90	15.00	200.00	
Sheet Harbour ...	H. Hall.....	April 11, '98		200.00	
Shelburne.....	J. C. Morisson.....	May 5, '97	177.50	200.00	
Ship Harbour.....	C. Marks.....	June 2, '84	29.00	100.00	
Spencer's Island..	B. McMillan.....	May 22, '99	3.00	100.00	
Tangier.....	Chas. Hilehey.....	Nov. 14, '01	14.50	200.00	
Tatamagouche ...	Wm. Rielly.....	June 1, '00	.50	200.00	
Tenny Cape.....	D. Lingard.....	Oct. 26, '05	8.00	200.00	
Tidnish.....	Vacant				
Tiverton.....	J. Blackford.....	April 3, '00	4.75	100.00	
Torbay.....	S. Fougère.....	Aug. 25, '03	11.50	200.00	

SESSIONAL PAPER No. 23.

PROVINCE OF NOVA SCOTIA.—*Continued.*

Name of Port.	Harbour Masters.	Date of Appointment.	Amount Col-lected.	Rem't'n from fees Allowed.	Amount paid to Cr. R. C.
Tusket.....	C. Doucette.....	Nov. 21, '02	.....	100.00	
Tusket Wedge.....	J. Leblanc.....	May 16, '01	67.00	100.00	
Victoria Pier So. Bay Sydney	Vacant				
Wallace.....	J. D. Potton.....	Feb. 14, '96	2.00	100.00	
Walton.....	B. McCulloch.....	Oct. 25, '05	48.50	200.00	
West Arichat.....	A. B. Poirier.....	Oct. 7, '96	17.00	100.00	
West Bay.....	H. McInnis.....	May 26, '06	Nil	100.00	
Westport.....	G. Welsh.....	Jan. 29, '98	29.50	200.00	
Weymouth.....	R. O. Parsons.....	May 29, '97	81.50	200.00	
White Head.....	A. Haley.....	May 11, '06	25.00	200.00	
Whyccomagh ..	N. McKinnon ..	Oct 8, '75	.....	100.00	
Wolfeville.....	J. L. Franklin.....	Aug. 16, '01	14.10	100.00	
Woods Harbour...	S. K. Woods.....	Feb. 19, '92	22.50	200.00	
Yarmouth.....	E. Scott.....	Oct. 19, '77	220.00	250.00	

PROVINCE OF PRINCE EDWARD ISLAND.

Alberton.....	J. Kinch.....	July 30, '01	2.00	200.00	
Bay Fortune.....	J. R. Coffin.....	April 29, '75	.....	200.00	
Brundenell.....	J. A. Jordan	Oct. 26, '05	.....	200.00	
Cardigan River including Cardigan Bridge..					
Cardigan River from head of river to North Bank					
Mitchell River....	J. Livingstone.	Nov. 14, '01	2.50	100.00	
Cove Head Charlottetown on					
Hillsborough River	D. Small.....	Feb. 19, '77	81.50	400.00	
Crapaud.....	W. Myers.....	June 17, '74	4.50	200.00	
Egmont Bay.....	G. Henry.....	Dec. 5, '06	2.50	200.00	
Georgetown.....	J. Westatway.....	May 16, '04	38 50	200.00	
Grand River					
Malpeque.....	J. Champion.....	Dec. 10, '96	.....	200.00	
Miminigash.....	P. Doucette.....	Jan. 21, '08	2.50	100.00	
Montague Bridge..	H. McPherson.....	May 5, '04	6.50	200.00	
Murray Harbour..	Geo. McLeod.....	Jan. 19, '07	9.00	200.00	
New London.....	W. Bell.....	Aug. 25, '96	2.00	200.00	
Murray River.....	Geo. McLeod.....	Feb. 9, '97	9.00	200.00	
Pinette.....	J. D. McDonald....	Oct. 22, '03	10.00	100.00	
Port Hill.....	W. C. Brown.....	June 20, '98	.....	200.00	
Pownal					
St. Peters' Bay....	G. Barry.....	May 3, '01	Nil	200.00	
Souris East & West	J. Tierney.....	May 15, '05	64.50	200.00	
Summerside.....	J. Matheson.....	Feb. 8, '07	41.50	200.00	

6-7 EDWARD VII., A. 1908.

PROVINCE OF PRINCE EDWARD ISLAND.—*Continued.*

Name of Port.	Harbour Masters.	Date of Appointment.	Amount Collected.	Rem't'n from fees Allowed.	Amount paid to Cr. R. C.
Grand Tracadie...	J. Clow.....	Feb. 7, '05	Nil	200.00	
Vernon River Bridge.....	J. Finlay.....	Oct. 9, '84	3.00	200.00	
Wood Island.....	J. Young.....	May 22, '99	Nil	100.00	

PROVINCE OF BRITISH COLUMBIA.

Chemainus.....	L. G. Hill.....	Mar. 2, '87	120.00	200.00	
Comox.....	G. H. Rowe.....	April 25, '96	419.00	200.00	219.00
Ladysmith.....	W. Fraser.....	May 29, '06	221.00	200.00	21.00
Nanaimo and Departure Bay...	Y. Knarston.....	Oct. 27, '05	622.50	500.00	122.50
New Westminster	W. B. Shiles	Feb. 15, '08	175.50	400.00	
Vancouver.....	M. McLeod.....	Jan. 14, '97	621.50	600.00	21.50
Victoria and Esquimalt.....	C. E. Clarke.....	Nov. 3, '94	672.50	600.00	72.50

RECAPITULATION.

Province.	No. of Ports.	Amount Collected.	Amount paid to credit of Receiver-General
Ontario.....	18	\$ 1,792.50	\$38.00
Quebec.....	30	1,950.50	373.50
New Brunswick.....	40	1,186.50	9.00
Nova Scotia, including Halifax...	118	5,247.55	266.50
Prince Edward Island.....	27	268.50	
British Columbia.....	7	2,852.00	456.50
Total.....	240	\$13,297.55	\$1,143.50

SESSIONAL PAPER No. 23.

APPENDIX 45.

List of Certificates of Competency granted to Masters and Mates of Inland and Coasting Vessels during the nine months ended 31st March, 1907.

Number of Certificate.	Date of certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
1906.						
6060	July 3.	Thomas B. Flower.	Master	Long Point, N.B.	St. John, N.B.	\$15.00
6061	" 4.	Rogers W. Ralph.	"	Espanola, Ont.	Cutler, Ont.	15.00
6062	" 4.	Leon Jaunay.	"	Limoilou, Que.	Quebec, Que.	15.00
6063	" 4.	James Cavanagh.	Mate.	Perth, Ont.	Ottawa, Ont.	6.00
6064	" 4.	Graham Harvie.	Master	Vancouver, B.C.	Vancouver, B.C.	15.00
6065	" 4.	Charles Henry Pitt.	"	Westfield, N.B.	St. John, N.B.	15.00
6066	" 4.	Wm. Robert Hamilton.	"	Bobcaygeon, Ont.	Kingston, Ont.	15.00
6067	" 4.	Wm. Alexander Gale.	Mate.	Young's Cove, N.B.	St. John, N.B.	6.00
6068	" 4.	Warren Dixon.	Master	Hopewell Cape, N.B.	St. John, N.B.	15.00
6069	" 4.	Simeon Baker.	"	Margaretville, N.S.	St. John, N.B.	15.00
6070	" 4.	Oliver H. P. Rogers.	"	New Westminster, B.C.	Vancouver, B.C.	15.00
6071	" 4.	William Allen.	Mate.	New Westminster, B.C.	Vancouver, B.C.	6.00
6072	" 4.	William Allen.	Master	"	"	15.00
6073	" 12.	James Alex. McLeod.	Mate.	Belfry Lake, C.B., N.S.	St. John, N.B.	6.00
6074	" 13.	John A. McMillan.	Master	Cape Rich, Ont.	St. Catharines, Ont.	15.00
6075	" 13.	John S. Cope.	Mate.	Vancouver, B.C.	Vancouver, B.C.	6.00
6076	" 13.	George W. Kinnee.	Master	Midland, Ont.	Kingston, Ont.	15.00
6077	" 13.	Auguste Thiaville.	"	Caughnawaga, Que.	Montreal, Que.	15.00
6078	" 16.	John Ed. Bishop.	Mate.	Marksville, Ont.	Cutler, Ont.	6.00
6079	" 26.	Joseph W. Wilcox.	Master	Big Lorraine, C.B.	Sydney, C.B., N.S.	15.00
6080	Aug. 7.	Bernard McKillop.	Mate.	Vancouver, B.C.	Vancouver, B.C.	6.00
6081	" 7.	Bernard McKillop.	Master	Vancouver, B.C.	Vancouver, B.C.	15.00
6082	" 7.	Lloyd W. Merriam.	"	Port Greville, N.S.	St. John, N.B.	15.00
6083	" 7.	Adolph Pedersen.	"	Vancouver, B.C.	Vancouver, B.C.	15.00
6084	" 7.	Charles Barnes.	"	Victoria, B.C.	Victoria, B.C.	15.00
6085	" 7.	Wm. Baxter.	"	Penetanguishene, Ont.	Minicoganashene, Ont.	5.00
6086	" 7.	Jacob E. Rathbun.	"	Solmesville, Ont.	Kingston, Ont.	15.00
6087	" 7.	Freeman Shipman.	"	Ivy Lea, Ont.	"	5.00
6088	" 7.	Joseph N. Gagnon.	Mate.	Montreal, Que.	Montreal, Que.	6.00

List of Certificates of Competency granted to Masters and Mates of Inland and Coasting Vessels during the nine months ended March 31, 1907.—Continued.

Number of Certificate.	Date of certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1906.					
6089	"	Roy Arnold Waters.....	Master	St. John, N.B.	St. John, N.B.	15.00
6090	"	Talmage C. MacLean.....	"	Kiersteadville, N.B.	St. John, N.B.	15.00
6091	"	Cecil Alfred Whitaker.....	"	Seehelt, B.C.	Vancouver, B.C.	15.00
6092	"	Wilfrid Philpott.....	"	New Westminster, B.C.	Vancouver, B.C.	15.00
6093	"	James D. Mahoney.....	Mate	Kingston, Ont.	Kingston, Ont.	6.00
6094	"	Carl B. Merriam.....	Master	Parrsboro, N.S.	St. John, N.B.	15.00
6095	"	Harry Breden.....	Mate	Fort Selkirk, Y.T.	Victoria, B.C.	6.00
6096	"	William T. Cotsford.....	Master	Salt Spring Island, B.C.	Victoria, B.C.	15.00
6097	"	Wm. Greenwood Bates.....	"	Gananoque, Ont.	Kingston, Ont.	5.00
6098	"	Chas. W. Edgett.....	"	Moncton, N.B.	St. John, N.B.	15.00
6099	"	Oscar Cameron.....	Mate	Shelburne, N.S.	Halifax, N.S.	6.00
7000	"	Thomas Tanti.....	Master	Vancouver, B.C.	Vancouver, B.C.	15.00
7001	"	William J. Archer.....	"	Tracadie, N.B.	St. John, N.B.	15.00
7002	"	Dougald Gates.....	"	Craigmont, Ont.	Ottawa, Ont.	5.00
7003	"	Edwin J. Geldert.....	"	Lunenburg, N.S.	St. John, N.B.	6.00
7004	"	Usabro Nishikawa.....	Mate	Vancouver, B.C.	Vancouver, B.C.	15.00
7005	Sept.	Herbert S. McCleery.....	Master	Grey's Hills, N.B.	St. John, N.B.	15.00
7006	"	Cyrenus Michner.....	"	Point Abino, Ont.	St. Catharines, Ont.	15.00
7007	"	Richard Dowler.....	Mate	Barriefield, Ont.	Toronto, Ont.	8.00
7008	"	John Alb. Willett.....	Master	Halifax, N.S.	Halifax, N.S.	15.00
7009	"	Edward Cole.....	Master	Dorchester, N.B.	St. John, N.B.	15.00
7010	"	John Cockle.....	"	Vancouver, B.C.	Vancouver, B.C.	15.00
7011	"	Henry F. Conkum.....	"	Dartmouth, N.S.	Halifax, N.S.	15.00
7012	"	Thomas Kennedy.....	"	Burks Falls, Ont.	Toronto, Ont.	15.00
7013	"	William Cooke.....	"	Granville, Ont.	Ottawa, Ont.	5.00
7014	"	Albert R. White.....	Mate	Long Reach, N.B.	St. John, N.B.	6.00
7015	Oct.	William S. McPhee.....	Master	Vankleek Hill, Ont.	Toronto, Ont.	15.00
7016	"	Louis Haptonstall.....	"	Port Essington, B.C.	Victoria, B.C.	15.00
7017	"	Johan Theodore Johnsen.....	"	Parrsboro, N.S.	St. John, N.B.	6.00
7018	"	James Pope.....	Mate	Louisburg, N.S.	Halifax, N.S.	6.00
7019	"	Alexander McLennan.....	"	Midland, Ont.	Toronto, Ont.	6.00
7020	"	Edgar Pelletier.....	Master	L'Islet, Que.	Quebec, Que.	15.00
7021	"	Loren P. Loomier.....	"	Advocate Harbour, N.S.	Yarmouth, N.S.	15.00

SESSIONAL PAPER No. 23.

List of Certificates of Competency granted to Masters and Mates of Inland and Coasting Vessels during the nine months ended March 31st, 1906.—*Continued.*

Number of Certificate,	Date of certificate	Name.	Grade.	Address.	Where Examination was passed.	Fee.
1906						
7022	" 31.	Seymour Zinck.....	Mate	Lunenburg, N.S.	Halifax, N.S.	6.00
7023	" 31.	Ralph Munro.....	"	Sheet Harbour, N.S.	Halifax, N.S.	6.00
7024	Nov. 5.	Benson A. Bongard.....	Master	Pictou, Ont.	Toronto, Ont.	15.00
7025	" 6.	Arthur Yates.....	Mate	Nanaimo, B.C.	Victoria, B.C.	6.00
7026	" 6.	Knud Poulsen.....	Master	Vancouver, B.C.	Vancouver, B.C.	15.00
7027	" 6.	"	Mate	Vancouver, B.C.	Vancouver, B.C.	6.00
7028	" 14.	Oswald Marin.....	Master	Port Arthur, Ont.	Port Arthur, Ont.	15.00
7029	" 14.	Mundi Erlendson.....	"	Hanaua, Man.	Selkirk, Man.	15.00
7030	" 14.	Hyarta Waterson.....	Mate	Selkirk, Man.	"	6.00
5100	" 24.	Arthur C. Labelle.....	"	Montreal, Que.	Quebec, Que.	6.00
5101	Dec. 3.	Gehardist C. McHarg.....	Master	St. John, N.B.	St. John, N.B.	15.00
5102	" 3.	Edward N. Russell.....	Mate	Golden, B.C.	Victoria, B.C.	6.00
5103	" 5.	Every J. Howes.....	Master	Arlene Junction, Ont.	St. Catharines, Ont.	15.00
5104	" 7.	Ernest Lefebvre.....	"	Poite Claire, Que.	Ottawa, Ont.	15.00
5105	" 11.	Henry E. Burke.....	"	Lunenburg, N.S.	Lunenburg, N.S.	15.00
5106	" 18.	Thomas Rippon.....	"	Vancouver, B.C.	Vancouver, B.C.	6.00
5107	" 18.	Thomas Rippon.....	Mate	"	"	15.00
5108	" 20.	Robert A. Hines.....	Master	Isaac's Harbour, N.S.	North Sydney, N.S.	15.00
1907						
5109	Jan. 7.	Angus C. Publicover.....	Mate	LaHave, N.S.	Yarmouth, N.S.	6.00
5110	" 7.	Robert Ward.....	"	Toronto, Ont.	Toronto, Ont.	6.00
5111	" 9.	Chas. A. Berryman.....	"	Germantown Lake, N.B.	St. John, N.B.	6.00
5112	" 9.	William Daly.....	"	Brentwood, Ont.	Toronto, Ont.	6.00
5113	" 9.	William J. Leeder.....	Master	Bracebridge, Ont.	Toronto, Ont.	15.00
5114	" 9.	Malcolm F. MacDonald.....	"	Pender Island, B.C.	Vancouver, B.C.	15.00
5115	" 9.	Malcolm F. MacDonald.....	Mate	"	"	6.00
5116	" 17.	Frank Johnson.....	Master	Vancouver, B.C.	Vancouver, B.C.	15.00
5117	" 17.	Timothy Dewey.....	"	Chatham, Ont.	Windsor, Ont.	15.00
5118	" 23.	Clarence B. Faulkner.....	"	Maitland, N.S.	Yarmouth, N.S.	6.00
5119	" 26.	Charles J. Stuart.....	Master	Montreal, Que.	Montreal, Que.	15.00
5120	" 26.	Napoleon Lachance.....	"	Quebec, Que.	Quebec, Que.	15.00
5121	" 29.	Hans. W. Kiesow.....	Mate	Victoria, B.C.	Victoria, B.C.	6.00
5122	" 30.	Alphonse Bourget.....	Master	Levis, Que.	Quebec, Que.	15.00

6-7 EDWARD VII., A. 1908.

List of Certificates of Competency granted to Masters and Mates of Inland and Coasting Vessels during the nine months ended March 31st., 1907.—*Continued.*

Number of Certificate.	Date of Certificate.	Name	Grade.	Address.	Where Examination was passed.	Fee.
1907						
5123	Feb. 4.	Chas. T. F. Granholm.	Mate	Port Greville, N.S.	St. John, N.B.	6.00
5124	" 19.	Joseph Boucher.	Master	Quebec, Que.	Quebec, Que.	15.00
5125	" 19.	Walter A. Ballagh.	"	Vancouver, B.C.	Vancouver, B.C.	15.00
5126	" 19.	Walter A. Ballagh.	Mate	Vancouver, B.C.	Vancouver, B.C.	6.00
5127	" 19.	Herbert J. Brian.	"	Kingston, Ont.	Kingston, Ont.	6.00
5128	" 19.	George J. Moltey.	Master	St. Catharines, Ont.	Toronto, Ont.	15.00
5129	" 19.	Augustus Geron.	Mate	Victoria, B.C.	Victoria, B.C.	6.00
5130	" 20.	Frederick Luscombe.	"	Vancouver, B.C.	Vancouver, B.C.	6.00
5131	" 20.	William Hallgren.	Master	Victoria, B.C.	Victoria, B.C.	15.00
5132	" 20.	Otto Owen.	Mate	Victoria, B.C.	Victoria, B.C.	6.00
5133	" 20.	Israel Desforges.	Master	Calumet, Que.	Victoria, B.C.	15.00
5134	" 22.	Evangeliste Gauthier	Mate	Vaudreuil, Que.	Ottawa, Ont.	6.00
5135	" 25.	Eusebe Menard.	Master	Quebec, Que.	Ottawa, Ont.	6.00
5136	" 25.	John F. Kingston.	"	Port Colborne, Ont.	Quebec, Que.	15.00
5137	" 26.	George Oates.	Mate	Halifax, N.S.	Toronto, Ont.	15.00
5138	" 26.	William A. Poole.	"	"	Halifax, N.S.	6.00
5139	" 26.	Chesley Hickman.	"	"	"	6.00
5140	" 26.	Amada Fougere.	Master	"	"	6.00
5141	" 26.	Ovila Seguin.	"	"	"	15.00
5142	" 26.	Harry E. Cook.	"	Hudson Heights, Que.	Ottawa, Ont.	15.00
5143	" 26.	Harry S. Hughes.	Mate	Amherstburg, Ont.	Windsor, Ont.	15.00
5144	" 26.	Arthur A. Taylor.	"	Victoria, B.C.	Victoria, B.C.	6.00
5145	" 26.	Charles E. Robinson.	Master	Nelson, B.C.	Victoria, B.C.	6.00
5146	" 26.	William L. Lewis.	"	Goderich, Ont.	Kingston, Ont.	15.00
5147	" 26.	William Cooke.	"	Victoria, B.C.	Victoria, B.C.	15.00
5148	" 26.	Jean B. Deslauriers.	Mate	Grenville, Que.	Ottawa, Ont.	5.00
5149	" 26.	John F. Edwards.	"	Quebec, Que.	Quebec, Que.	6.00
5150	Mar. 20.	William Hubley.	Master	Vancouver, B.C.	Vancouver, B.C.	6.00
5151	" 20.	Joseph Lacouture.	"	Lunenburg, N.S.	Yarmouth, N.S.	15.00
5152	" 20.	William Dryden.	Mate	St. Ours, Que.	Quebec, Que.	15.00
5153	" 20.	Robert Warren.	Master	Parrsboro, N.S.	St. John, N.B.	6.00
5154	" 20.	J. Bte. Leblanc.	"	Vancouver, B.C.	Vancouver, B.C.	15.00
				Pembroke, Ont.	Ottawa, Ont.	15.00

SESSIONAL PAPER No. 23.

List of Certificates of Competency granted to Masters and Mates of Inland and Coasting Vessels during the nine months ended 31st. March, 1907.—*Concluded.*

Number of Certificates.	Date of Certifi- cate.	Name	Grade.	Address.	Where examination was passed.	Fee.
1907.						
5155	" 20.	Thomas J. Jamieson.	Mate	Victoria, B.C.	Victoria, B.C.	6.00
5156	" 20.	Malcolm Macleod.	"	Slocan, B.C.	Victoria, B.C.	6.00
5157	" 20.	Louis Anderson.	Master	Vancouver, B. C.	Vancouver, B.C.	15.00
5158	" 20.	Louis Anderson.	Mate	Vancouver, B.C.	"	6.00
5159	" 20.	James Alfred Woods.	"	"	"	6.00
5160	" 29.	James Alfred Woods.	Master	"	"	6.00
5161	" 29.	Raphael Chevrier.	"	St. Joseph de Sorel, Que.	Ottawa, Ont.	15.00
5162	" 29.	Thomas A. James.	"	Combermere, Ont.	"	15.00
5163	" 29.	William Henry Bradshaw.	"	Bracebridge, Ont.	Toronto, Ont.	5.00
5164	" 29.	Walter Scrope Shrapnel.	Mate	Vancouver, B.C.	Vancouver, B.C.	15.00
5165	" 29.	John David Goyettehe.	Master	"	"	6.00
5166	" 29.	John David Goyettehe.	Mate	"	"	6.00
5167	" 29.	Thomas Combe.	Master	"	"	15.00
5168	" 29.	Thomas Combe.	Mate	"	"	6.00
5169	" 29.	Francis Joseph Snowdon.	Master	Westmeath, Ont.	Ottawa, Ont.	15.00

List of Certificates of Competency granted to Masters and Mates of Sea-going vessels during the Nine months ended March 31st, 1907.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
1906.						
3668	July 4.	Archd. John Brewer.	2d Mate	Devon, England.	Victoria, B.C.	8.00
3669	" 13.	William Hayward.	"	Hull, England.	Victoria, B.C.	8.00
3670	Aug. 7.	Johnson Steward Morris.	Master	West Advocate, N.S.	St. John, N.B.	15.00
3671	" 7.	Jens S. Gade.	2d Mate	St. John, N.B.	St. John, N.B.	8.00
3672	" 7.	Ernest Henry Day.	"	Isle of Wight, England.	Victoria, B.C.	8.00
3673	" 7.	Herbert LeRoy Harrison.	Master	Fredricton, N.B.	St. John, N.B.	15.00
3674	" 7.	Elroy Peck.	Mate	Bear River, N.S.	St. John, N.B.	8.00
3675	" 7.	William Ewart Clayton.	"	England.	Victoria, B.C.	8.00
3676	" 24.	Cyril Campbell Carlisle.	Master	"	"	15.00
3677	" 24.	Wm. S. Heneberry.	2d Mate	Sambro, N.S.	Halifax, N.S.	8.00
3678	" 30.	Peter F. Mallett.	"	Yarmouth, N.S.	Yarmouth, N.S.	8.00
3679	" 30.	Daniel McKenzie.	Master	"	"	15.00
3680	Sept. 4.	Michael Howard.	2d Mate	St. John, N.B.	St. John, N.B.	8.00
3681	" 13.	Zacharie E. Porter.	"	Tusket Dedge, N.S.	Yarmouth, N.S.	8.00
3682	Oct. 23.	George Smith.	2d "	Collardye, Scotland.	Victoria, B.C.	8.00
3683	" 31.	Jens Peter Jensen.	"	Halifax, N.S.	Halifax, N.S.	15.00
3684	Nov. 5.	Archibald Smith.	Master	New Zealand.	Yarmouth, N.S.	15.00
3685	" 19.	Arthur L. Geitzler.	"	Walton, Hants Co., N.S.	"	8.00
3686	" 19.	Hanes Richard P. Marshall.	Mate	Weymouth, N.S.	St. John, N.B.	8.00
3687	Dec. 4.	Robert Winter.	2d "	Victoria, B.C.	Victoria, B.C.	8.00
3688	" 4.	Thomas Edwards.	"	"	"	8.00
3689	" 4.	Allan Richard Perrin Shaw.	Master	St. Catharine, Ont.	"	15.00
1907						
3690	Jan. 9.	Sydney B. Corkun.	Mate	La Have, N.S.	Yarmouth, N.S.	8.00
3691	" 9.	Harry Robert Mur.	"	Shelburne, N.S.	"	8.00
3692	" 10.	Philip Cranston Musgrave.	Master	Ottawa, Ont.	Ottawa, Ont.	15.00
3693	" 17.	Clifton Smith.	"	New Carlisle, Que.	Halifax, N.S.	15.00
3694	" 17.	Henry O. Forward.	2d Mate	Burgeo, N.F.L.	Ottawa, Ont.	8.00
3695	" 26.	Napoleon Lachance.	"	Quebec, Que.	Victoria, B.C.	8.00
3696	" 26.	William Shearing.	2d "	Victoria, B.C.	"	8.00
3697	" 30.	Julius Christinus Hougaard.	"	Norway.	Yarmouth, N.S.	8.00
3698	Feb. 21.	Edgar Joseph Inness.	"	Liverpool, N.S.	"	8.00
3699	" 21.	B. Walter C. Manning.	"	Bridgewater, N.S.	"	8.00

SESSIONAL PAPER No. 23.

Number of Certificate	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
3700	1907 " 21..	George Steele	Master ..	Victoria, B.C.	Victoria, B.C.	15.00
3701	Mar. 19..	John Charles Shaw	Mate	Halifax, N.S.	Halifax, N.S.	8.00
3702	" 19..	John C. McCarty	Master ..	"	St. John, N.B.	15.00
3703	" 19..	Magnus Leo Musson	Mate	Lincoln, England	Victoria, B.C.	8.00
3704	" 19..	Ambroise Richardson	Master ..	Halifax, N.S.	Halifax, N.S.	15.00
3705	" 28..	John Telper Caldwell	Mate	Girvan Ayleshire, Scotland	Victoria, B.C.	8.00

List of Certificates of Service granted to Masters and Mates of INLAND and COASTING Vessels, during the nine months ended, March 31, 1907.

Number of Certificate	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
3401	1906 Nov. 5..	Robert Chircoine	Master	Barachois, Gaspé, Que	Kingston, Ont.	15.00
3402	1907 May 2..	Frank P. Gallant	"	Leoville, Lot 1, P.E.I.	Charlottetown, P.E.I.	8.00
3403	" 2..	James Henry Card	"	Parrsboro, N.S.	Parrsboro, N.S.	8.00
3404	" 14..	James Murphy	"	Quebec, Que	Quebec, Que	8.00

6-7 EDWARD VII., A. 1908.

STATEMENT showing the results of certain returns respecting Shipping and Discharging of Seamen, received by the Department of Marine and Fisheries in accordance with the provisions of Chapter 113, An Act respecting Shipping in Canada, from Shipping Masters throughout the Dominion, for the half year ended June 30 and December 31, 1907.

NOTE.—The Collectors of Customs act as Shipping Masters.

NOVA SCOTIA—Continued.

Name of Port.	Name of Country.	Name of Shipping Master.	For half-year ended June 30, 1906.		For half-year ended December 31, 1906.		Total Seamen Shipped.	Total Seamen Discharged.	Total Amount.
			Seamen Shipped.	Seamen Discharged.	Seamen Shipped.	Seamen Discharged.			
Liscomb.....	Guy'sboro.	William H. Pye.....	9	5	6.00	7	5	16	11.00
Little Bras d'or.....	Cape Breton.	C. of C.	No rtr.			239	183	239	168.40
Liverpool.....	Queens.	Capt. Jas. Ryan.....	"			15	11	15	10.80
Lockport.....	Shelburne.	C. of C.	Nil						
Londonderry.....	Colchester.	J. A. Blaikie.....	199	15	145.10	140	79	339	238.80
Louisburg.....	Cape Breton.	Wm. W. Lewis.....	178	60	219.90	194	162	372	261.00
Lunenburg.....	Lunenburg.	Benjamin C. Knoek.....	101	22	57.10	77	37	178	107.70
Malone Bay.....	Lunenburg.	A. F. Zwicker.....	No rtrns.						
Main-a-Dieu.....	Cape Breton.	C. of C.	"						
Maitland.....	Hants.	"	"						
Margaree.....	Inverness.	"	"						
Margaretsville.....	Annapolis.	S. Harris.....	Nil						
Merigomish.....	Pictou.	Donald-McGregor.....	"						
Meteghan.....	Digby.	E. W. Doucet.....	10	8	7.40	26	23	26	19.90
Mulgrave.....	Guy'sboro.	M. J. Keating.....	No rtrns.			3	2	3	2.10
No. East Harbour.....	Shelburne.	M. J. Ross.....	126	16	67.80	No rtrn.		126	67.80
North Sydney.....	Cape Breton.	D. K. Holmes.....	122	77	84.10	170	167	292	219.20
Parrsboro.....	Cumberland.	John Waters.....	12	8	8.40	48	39	60	44.10
Pictou.....	Pictou.	C. of C.	No rtrns.						
Port G'bert.....	Digby.	T. K. Bentley.....	35	12	21.10	No rtrns.		35	21.10
Port Graville.....	Cumberland.	James McLean.....	7	10	6.50	13	11	20	16.30
Port Hawkesbury.....	Inverness.	E. D. Tremaine.....	Nil			Nil	Nil		
Port Hood.....	Port LaFour.	Benj. R. Smith.....	"			Nil			
Port Lorne.....	Annapolis.	C. of C.	No rtrns.						
Port Medway.....	Queen's.	E. E. Letson.....	5	1	2.80	5	3	10	6.20
Digby.....	Digby.	J. M. Viets.....	No rtrns.			16	28		16.40
Freeport.....	"	A. F. Outhouse.....	No rtrns.			6	6		4.80

SESSIONAL PAPER, No. 23.

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APPENDIX No. 47

WRECKS AND CASUALITIES.

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.		Register Tonnage.
				Iron or wood.	Steam or Sailing.	
1906		Yrs.				
Nov. 16	A. J. McKean..... (103,741).....	30	Charlottetown, P. E. I.	Schooner, wood, sail .		65
July 4..	A. W. Perry..... (106,075)	9	Halifax, N. S.	Schooner, steel, steam		873
Dec. 6..	Abbie C. Stubs..... (106,060)	24	New York, U. S. A...	Schooner, wood, sail .		295
Dec. ..	Abbie Keast..... (107,798)	7	St. John, N. B.	Schooner, wood, sail...		96
March 16..	Adelene..... (88,697)	21	St. John, N. B.	Schooner, wood, sail .		193
1907						
Feb. 11..	Adeona.....		Norwegian, Norway.	Barque, wood, sail. .		
April 29..	Agnar.....	24	Norwegian, Norway.	Schooner, iron, steam.		984
Jan. 10..	Agnes May..... (107,067)	9	St. John, N. B.	Schooner, wood, sail...		92
May 27..	Aguila..... (92,474)	18	Charlottetown, P. E. I.	Bgtn., wood, sail.		150
Sept. 1..	Aguila..... (92,474)	18	Charlottetown, P. E. I.	Bgtn., wood, sail.		150
Nov. 25..	Aid..... (97,047)	6	Liverpool, N. S.	Tug, wood, steam...		67
March 10..	Albertha..... (107,644)	8	Lunenburg, N. S.	Schooner, wood, sail..		94
1906						
Sept. ..	Albertha..... (107,644)	7	Lunenburg, N. S.	Schooner, wood, sail..		94
1907						
April 30..	Alembic..... (104,772)	13	London, G. B.	Schooner, steel, sail. .		219
1906						
Oct. 7..	Alice..... (64,626)	34	Parrsboro, N. S.	Schooner, wood. sail .		55
1907						
Feb. 9..	Alice..... (112,244)	5	Vancouver, B. C.	Sloop, wood, steam...		7
1906						
Nov. 29..	Alice Maud..... (96,955)	17	St. John, N. B.	Schooner, wood, sail.		120
July 29..	Aline.....	31	Genoa, Italy.	Bk., iron, sail.		736
Sept. 6..	Alma..... (36,487)	46	Charlottetown, P. E. I.	Schooner, wood, sail...		65
1907						
April ..	Amelia..... (104,069)	12	Magdalen Islds., Que	Iron, steam.		103
Feb. 9..	Amelia..... (104,069)	12	Magdalen Islds., Que.	Iron, Steam.		103
Feb. 25..	Americana..... (59520)	18	W. Hartlepool, G.B.	S.S., iron, steam.		1,824

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels
months ending June 30, 1906-7.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.	
				\$
Chatham, N. B.; Alber- ton, P. E. I.	Alberton Bar, P. E. I.	Stranded.....	Total	2,200
Halifax, N. S.; Boston, U. S. A.	Off Liverpool, N. S., Atlantic Ocean.	Engine broke down.....	Part.	1,000
River Hebert, N. S.; New York, U. S. A.	West Quaco Beach, N. B., Canada.	Stranded.....	Part.	3,000
St. John, N. B.; Boston, U. S. A.	Near St. John, N. B.	Lost some sails.....		
St. John, N. B.; New York U. S. A.	7 miles east Boston light, N. Atlantic.	Waterlogged and ab- andoned.	Total	
Preston Dock.....	Northumberland Straits.	Stranded.....	11 Total	
Glasgow, G. B.; Sydney, C. B.	Off Scatterie Island...	Damaged by ice.....	Part.	600
Boston, U. S. A.; St. John, N. B.	Long Ledge, Me., U. S.	Stranded.....	Total	2,000
Paspebiac, Que.; Boston, U. S. A.	40 miles east Cape Cod, U. S. A.	Lost foresail and part of deckload.		
Paspebiac, Que.; Boston, U. S. A.	45 miles off Miscon Isl., N. B.	Lost part of deckload.....		
Halifax, N. S.; Gillesport	Hamilton Inlet, Lab- rador.	Stranded.....	Total	
Halifax, N. S.; New York, U. S. A.	20 miles east off Chat- ham, U. S. A.	Lost stay sail.....		
Chester, New York.....	Hedge Fence Shoal....	Stranded.....	Slight.	
Liverpool, G. B.; Sydney, C. B.	Off Scatterie, Atlantic.	Damaged by ice.....	Part.	60
Five Islands, N. S.; West Bay, N. S.	West Bay, N. S., Parrs- boro, Mines Channel.	Stranded.....	Total	525
Vancouver, B. C., coast- wise.	Knights' Inlet, B. C.	Stranded.....	Total	2,500
St. John, N. B.; Boston, U. S. A.	Quoddy Harbour, Me., U. S. A., Atlantic.	Stranded.....	Part.	500
Canary Islands, Richi- bucto, N. B.	Amherst Island, Gulf of St. Lawrence.	Stranded.....	Part.	4,000
Pictou, N. S.; Charlotte- town, P. E. I.	Northumberland Straits.	Stranded.....	Total	600
Halifax, N. S.; Magdalen Islands, Que.	7 miles w. s. w. of East Point, P. E. I., Gulf St. Lawrence.	Collision.....	Part.	2,500
Canso, N. S.; White Head, N. S.	Glasgow Head, N. S.	Damaged by ice.....		
London, G. B.; St. John, N. B.	Furness Pier, Halifax, N. S.	Damaged by fires,.....		200

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906		Yrs.			
July 10..	Angola.....	15	London, G. B.....	Schooner, steel, steam	1,811
April 26..	Annie Ethel..... (117,024)	1	Sydney, C. B.....	Schooner, wood, sail	51
1907					
May 14..	Annie D..... (80,627)	25	Shelburne, N. S.....	Schooner, wood, sail...	71
1907					
Oct. 17..	Annie Smith..... (107,279)	7	Paspebiac, Que.....	Bktne., steel, sail....	249
June 11..	Argentina..... (92,682)	16	Pictou, N. S.....	Bktne., wood, sail....	583
Sept. 10..	Arcadia.....	.....	Norwegian.....	Bk., iron, sail.....	1,214
June 18..	Argentina..... (92,682)	15	Pictou, N. S.....	Bktne., wood, sail....	583
1907					
Feb. 18..	Arizona..... (83,307)	24	Liverpool, N. S.....	Schooner, wood, sail	99
1906					
Oct. 15..	Arona..... (97,190)	16	Windsor, N. S.....	Schooner, wood, sail...	532
Dec. 15..	Arrow..... (111,699)	5	Liverpool, N. S.....	Schooner, wood, sail...	183
Nov. 11..	Arthur H. Wight..... (116,911)	2	Lunenburg, N. S.....	Schooner, wood, sail...	99
Dec. 8..	Arthur H. Wight..... (116,911)	2	Lunenburg, N. S.....	Schooner, wood, sail.	99
1907					
April 13..	Arlight..... (107,182)	9	Charlottetown, P. E. I.	Schooner, wood, sail	103
March 21..	Askchall..... (112,416)	6	Hartlepool, G. B....	Schooner, steel, steam	2,762
1906					
Sept. 27..	Athena..... (92,498)	18	Windsor, N. S.....	Bktne., wood, sail....	663
Nov. 9..	Athenia..... (119,121)	2	Glasgow, G. B.....	Schooner, steel, steam	5,982
Dec. 7..	Atlantic..... (122,143)	1	Lunenburg, N. S....	Schr., wood, steam...	67
Feb. 10..	Atrato..... (103,210)	9	Belze, B. H.....	Schooner, wood, sail...	215
Dec. 12..	Atlantic..... (121,870)	1	Lunenburg, N. S.....	Schooner, wood sail...	80
Aug..	Audacieux..... (83,433)	20	Weymouth, N. S....	Schooner, wood, sail...	99
Nov. 28..	Baden Powell..... (107,780)	6	Chatham, N. B.....	Schooner, wood, sail...	96

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906-7.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.	
Progress, Sydney, C. B....	Howick Point, N. S..	Stranded.....	Total	
Louisburg, C. B.; Gabarus, C. B.	Harbour Point, N. S..	Stranded.....	Total	8,50
Shelburne, N. S.; L'Ardoise, N. S.	L'Ardoise Harbour, C. B., N. S.	Stranded.....	Part.	1,200
Gaspé, Que.; Havana....	Havana Harbour, Cub	Collision.....	Part.	10,000
Lunenburg, N. S.; New York, U. S. A.	Lat. 27° 3' n. long. 45° 55' w. Atlantic.	Foundered.....	Total	
Cape Fown, S. A.; Ingram Docks, N. S.	39° n. lat., 58° w. long. Atlantic	Damaged and lost sails in hurricane.	Part.	
Buenos Ayres, New York.	Lat., 32° 50' n.; long. 50° 12' w. Atlantic...	Foundered.....	Total	
Louisburg, N. S.; Lockport, N. S.	40 miles s. s. w. from Cape Sable Island, Atlantic Ocean.	Stranded.....		
Pensacola, Gulf Port....	27° 0' n. lat., 85° 0' w. long., Gulf of Mexico	Sprung a leak.....		
San Domingo, New York.	Planque, San Domingo	Stranded.....	Total	22,000
Bridgwater, N. S.; New York, U. S. A.	12 miles s. w. of Cape Sable, N. Atlantic.	Sprung a leak.....	Part.	500
Bridgwater, N. S.; New York, U. S. A.	Bay of Fundy, Atlantic	Part of deckload washed away; no loss.		
Halifax, N. S.; New York, U. S. A.	30 miles south from Cape Sable, N. S.	Lost 9 bundles lath.....		3
Middlesboro, Philadelphia	45° 41' n., 58° 41' w., N. Atlantic.	3 propeller blades broken.	Part.	8,000
At Mobile, Ala., U. S. A....		Driven ashore in hurricane.	Total	8,000
Montreal, Que.; Glasgow, G. B.	900 ft. below Cap La Roche, Lower Bend	Stranded.....	Part.	
Lunenburg, N. S.; Bay of Islands, Nfld.	Little Arm, Bay of Islands, Nfld.; Gulf of St. Lawrence.	Broke propeller blade and rudder.	Part.	600
Philadelphia, Nfld.	St. John's, Liverpool Bay, N. S.	Stranded.....	Total	
LaHave, N. S.; Halifax, N. S.	Goose Island, Isaacs' Harbour, N. S.	Stranded.....	Total	5,800
Little Brook, N. S.; Rockland, Me.	Rockland, Me., U. S. A.	Both spars broken while unloading cargo.	Part.	400
Chatham, N. B.; New York, U. S. A.	Off White Island, N. S.	Lost deckload of lath.....		4,600

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906		Yrs.			
Feb. 16..	Baldwin..... (97,039)	15	Yarmouth, N. S. . . .	Bktne., wood, sail. . . .	561
May 11..	Bartholdi..... (100,004)	15	Annapolis, N. S.	Schooner, wood, sail. . .	299
Aug. 24..	Bartholdi..... (100,004)	15	Annapolis, N. S.	Schooner, wood, sail. . .	299
Aug. 14..	Basil M. Geldert..... (103,755)	9	Liverpool, N. S.	Schooner, wood, sail. . .	99
April 10..	Basutaland..... (112,383)	2	Liverpool, N. S.	Schooner, wood, sail. . .	189
Nov. 23..	Basutaland..... (112,383)	3	Liverpool, N. S.	Schooner, wood, sail. . .	189
Nov. 17..	Beatrice..... (85,345)	13	Chatham, N. B.	Schooner, wood, sail. . .	78
1907					
Feb. 11..	Beaver..... (100,056)	16	St. John, N. B.	Schooner, wood sail. . .	192
1906					
Dec. 24..	Beatrice..... (94,326)	17	Cardiff, G. B.	Schooner, steel, steam	353
Sept. 2..	Bella Rose..... (116,303)	1	Charlottetown, P. E. I.	Schooner, wood, sail. . .	
July 16..	Belmont..... (98,630)	15	Yarmouth, N. S.	Bk., steel, sail.	1,415
Nov. 15..	Bessie G..... (85,622)	22	Parrsboro, N. S.	Schooner, wood, sail. . .	69
Sept. 5..	Bessie Dollar..... (12,172)	1	Victoria, B. C.	Schooner, steel, steam	2,797
Oct. 7..	Bessie Parker..... (96,753)	17	St. John, N. B.	Steel and wood, sail. . .	228
Nov. 9..	Blanch.....	7	American.	Schooner, wood, sail. . .	78
1907					
April 8..	Blanche..... (3,799)	8	Gloucester, Mass., U. S. A.	Schooner, wood, sail. . .	78
1906					
June 12..	Bluenose..... (100,909)	3	Windsor, N. S.	Schooner, wood, sail. . .	166
May 20..	Bobs..... (92,747)	12	Parrsboro, N. S.	Schooner, wood, sail'..	97
Nov. 16..	Bonnie Glen..... (94,680)	17	Halifax, N. S.	Schooner, wood, sail. . .	17
Aug. 20..	Boston Maine..... (85,545)	23	Yarmouth, N. S.	Brgtn., wood, sail. . . .	150
April 15..	Boston Marine..... (85,545)	23	Yarmouth, N. S.	Brgtn., wood, sail. . . .	150
Dec. 3..	Briardine..... (85,914)	24	Newcastle-on-Tyne, G. B.	S.S., iron, steam.	1,722

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going Vessels
months ending June 30, 1906-7.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.
Philadelphia, Las Palmar.	North Atlantic.....	Trifling accident.....	
Grand Cayman, Mobile...	Lat., 26° 54' n.; long., 87° 51' w., Gulf of Mexico.	Lost sails.....	
Mobile, Guatamala.....	S. E. edge of Yucatan channel.	Lost 60,000 ft. lumber.....	Part. 1,200
Aquelfort, Nfld., Halifax, N. S.	Sable Isl., Atlantic Ocean.	Stranded.....	Total 6,000
Bridgewater, N. S.; New York, U. S. A.	40° n. e. by n. from Cape Cod, Atlantic.	Lost part of deckload.....	Part. 600
Sydney, C. B.; New York.	40 miles w. Cape Sable.	Lost jib and had part.... of cutwater dashed off.	
Meteghan, N. S.; Boston, U. S. A. 0	On passage from Mete- ghan to Boston..	Lost foresail.....	
Walton, N. S.; Boston, U. S. A.	Off Graves, Boston Harbour.	Lost foresail and jib.....	
North Sydney, St. John, N. B.	Cranberry Head, Syd- ney Harbour.	Sprung a leak.....	Total 35000
Souris, P. E. I., Fishing ground.	Colwell Bay, Nfld.....	Stranded.....	Part. 420
Rozario, Rio de Jan.....	4 miles w. by n. from Chies Vessel Light, River Plate, A. R....	Collision.....	
Hantsport, N. S.; Parrs- boro, N. S.; St. John, N. B.	Spencers' Isl., Beach, Minas Channel.	Stranded.....	Part. 300
Port Townsend, Shanghai.	Lower section of Whin pool River, Shanghai China.	Collision.....	
St. John, N. B.; New York, U. S. A.	3 miles west of Anoddy Head, Me., U. S. A.	Stranded.....	Total 11,161
Gloucester, Mass.; Pt. Hawkesbury, Mass., Fishing grounds.	Middle ground between Canso and Sable Hld..	Damaged in gale.	110
Gloucester, Mass., Canso, N. S.....	Kalbacks Head, Lun- enburg Harbour.	Stranded.....	1,200
Hantsport, N. S.; New York, U. S. A.	Parrsboro River, Minas Basin, N. S.	Fire.....	300
Maitland, N. S.; New Haven, U. S. A..	Vineyard Haven, off Mount Desert.	Lost sails and rigging, ... and broke wheel.	
Charlottetown, P. E. I.; Pictou, N. S.	Coals' Reef, 45° 40' n., 62° 40' e., Pictou, N.S.	Stranded.....	Total
Louisburg, N. S.; Chat- hain, N. B.	Cape Tormantine, N.B. Gulf St. Lawrence.	Stranded.....	Total 3,780
Bridgewater, N. S.; New York, U. S. A.	Nantucket's Shoals...	Split sails.	
Bordeau, Liscomb Mills..	45° 41' n. lat., 57° 13' w. long., N. Atlantic.	Lost propellor and ... blades.	500

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.		Register Tonnage.
				Iron or wood.	Steam or Sailing.	
1907		Yrs.				
Jan. 8..	Britannia..... (100,571)	14	Lunenburg, N. S....	Schooner, wood, sail...		89
1906						
Dec. 3..	Britannia..... (100,571)	13	Lunenburg, N. S....	Schooner, wood, sail...		90
	Brooklyn..... (111,697)	6	Liverpool, N. S....	Schooner, wood, sail...		247
1907						
Jan. 12..	Burnham H..... (96,823)	17	Lunenburg, N. S....	Schooner, wood, sail...		88
1906						
March 12..	C. B. Whidden..... (111,698)	4	Liverpool, N. S....	Bktn., wood, sail.....		349
Dec. 30..	Calcium..... (103,726)	10	Parrsboro, N. S....	Bk., wood, sail.....		687
1907						
Feb. 25..	Cambridge..... (92,579)	22	Halifax, N. S.....	Schooner, wood, sail...		13
1906						
July 24	Camosun.....	1	Glasgow, G. B.....	Schr., steel, steam....		794
Sept. 27	Canada..... (100,262)	15	Windsor, N. S.....	Ship, wood, sail....		2,137
May 21..	Canadian..... (111,706)		Lunenburg, N. S....	Schooner, wood, sail.		108
1907						
Jan. 12..	Candid.....	34	St. Johns, Nfld....	Schooner, wood, sail...		35
1906						
May 16..	Capitano..... (100,203)	14	Vancouver, B. C....	SS. steel, steam.....		157
March 18..	Carrie Easter..... (85,619)	23	Port Medway, N. S..	Schooner, wood, sail...		179
June 18..	Carry L. Smith..... (96,744)	17	St. John, N. B.,....	Bk., wood, sail.....		600
1907						
Jan. 24..	Casco..... (100,642)	28	Victoria, B. C.....	Schooner, wood, sail...		68
1906						
July 21..	Chehalis..... (103,165)	9	Vancouver, B. C....	Wood, steam.....		36 ft
Jan. 30..	Carib II..... (107,989)	5	Shelburne, N. S....	Schooner, wood, sail..		194
Dec. 2..	Cheslie..... (103,726)	11	Parrsboro, N. S.....	Schooner, wood, sail...		331
1907						

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906-7.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.
Halifax, N. S., Boston, Haddock Shoals, N. S. Mass.		Stranded.....	Part. 4,500
Bay of Islands, Nfld., Bos- ton, U. S. A.....	Off Cape Ray, Nfld....	Lost part of cargo, and... sail damaged.	
Weymouth, N. S.; Hav- ana, Cuba.	North Atlantic, lat., 29° 44 n., long., 71° 20 w.	Lost sails, and vessel 1 waterlogged.	Part.
Lake Harbour, Nfld.; Hali- fax, N. S.	Black Rock Brook, Nfld., N. Atlantic.	Stranded.....	Total 4,500
Pascogula, Havana.....	Horn Isl. Light House, n. w. x w. 6½ miles, Gulf of Mexico.	Trifling accident.'.....	
Philadelphia, Gulf port...	Chandelier Island, Mass., U. S. A.	Stranding.....	4,000
Lockport, N. S.; Lock- port, N. S.	Hound Shoal, Cross Is- land, N. S.	Stranding.....	Total 2,400
Vancouver, B. C.; Port- land Canal, B. C.	Prince Rupert, B. C.	Stranding.....	
Rio de Janeiro, Pensacola.	Pensacola Bay.....	Stranded.....	
Cadiz, Spain, St. Johns, Nfld.	38° 41 n., 14° 31 w., Atlantic.	Foundered.....	Total 5,550
Halifax, N. S.; Port Mau- ton.	Liverpool Harbour....	Stranded.....	Total
Vancouver, B.C., coast- wise.	Baronet Passage, B.C.	Stranded.....	No damage.
Port Hastings, N.S.....	20 miles east of Halifax	Foundered.....	Total, \$2,750
Yarmouth, N.S.			
Bear River, N.S., Annapo- lis, N.S.....	Ferry Slip, Annapolis Royal, N.S.....	Stranded.....	Part, 4,000
Victoria, B.C., San Diego, Cal., U.S.A.	Off San Diego, Cal., U.S.A.	Stranded.....	Part, 750
Vancouver, B.C., Coast- wise.	Brockton Point, Van- couver Narrows, B.C.	Collision with S.S. "Princess Victoria"	8 Total,
Puerto Cortez, New York, U.S.A.	Lat. 18° N., Long. 85° W., Caribbean....	Lost top mast and jibboom	Part, 150
New York, U.S.A.....	Off coast Maine, U.S.A.	Lost bowsprit.....	Part, 700

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1907		Yrs.			
June 6..	Chieftain..... (94,820)	16	Victoria, B. C.	Wood, steam.....	
1906					
Sept. 21..	City of Seattle.....	16	New York, U. S. A.	Schooner, iron, steam.	767
Nov. 4..	Clara C. Scott..... (119,982)	1	Georgetown, C. I. . .	Schooner, wood, sail...	261
Sept. 27..	Clara C. Scott..... (119,982)	1	Georgetown, C. I. . .	Schooner, wood, sail...	261
April 11..	Clarence B..... (111,739)	4	Lunenburg, N. S. . . .	Schooner, wood, sail...	90
Sept. 3..	Clifford C..... (85,980)	24	St. John, N. B.	Schooner, wood sail..	96
Dec. 4..	Collector..... (107,122)	8	Lunenburg, N. S. . . .	Schooner, wood sail..	99
Dec. 7..	Coloma.....	27	San Francisco, U.S.A	Bkt., wood, sail.	852
Oct. 24..	Conductor..... (80,804)	26	Windsor, N. S.	Bgtn., wood, sail.	1,067
1907					
May 10..	Concordia..... (84,342)	26	Glasgow, G. B.	Schooner, iron, steam.	1,617
1906					
Dec. 1..	Cora May..... (94,758)	18	St. John, N. B.	Schooner, wood, sail..	117
Nov. 5..	Corinto..... (103,024)	11	Parrsboro, N. S.	Schooner, wood, sail..	[98
1907					
June 20..	Crystal Stream..... (112,229)	34	St. John, N. B.	Wood, steam.....	304
1906					
June 30..	Cymbelene..... (88,348)	22	Arichat, N. S.	Schooner, wood, sail...	97
Dec. ..	Darby.....	.....	Norwegian, Norway.	Bk., wood, sail.....	882
1907					
May 18..	Deeta M..... (111,405)	7	Lunenburg, N. S.	Schooner, wood, sail...	81
1906					
Aug. 26..	Diana.....	.....	Gloucester, Mass. . . .	Schooner, wood, sail..	89
Dec. 14..	Dictator..... (97,089)	16	Lunenburg, N. S.	Schooner, wood, sail...	78
Jan. 26..	Dixon Rice..... (107,601)	6	Weymouth, N. S. . . .	Bgtn., wood, sail.	196
Oct. 19..	Doris M. Pickups..... (107,300)	5	Annapolis, N. S.	Schooner, wood, sail...	373

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906-7.

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Vancouver, B.C., Pt. Essington, B.C.	At anchor in Skeena River at wharf, B.C.	Burnt.....	Part, 3,000
Seattle, Wash., Victoria, B.C.	Trial Island Baynes Channel, B.C.	Stranded.....	
Pasquaout, Kingston, Ja.	Caribbean Sea near Yucatan Channel....	Lost deckload of lum- ber	Part,
In Port; Mobile.....	Harbour of Mobile....	Collision with wharf.....	Part, 800
Halifax, N.S., Port Hood, N.S.	West side of Port Hood N.S.	Stranded.....	Part, 1,700
St. John, N.B., Boston, Mass., U.S.A.	7 miles, N.N.E. of Cape Ann, Ipswich, Bay	Broke main boom.....	
LaHave, N.S., Bay of Islands, Nfld.....	Port au Port, Nfld., Gulf St. Lawrence	Went ashore.....	Part, 1,000
San Francisco, Cal., San Diego, Cal., U.S.A.	N. Pacific West coast of Vancouver, B.C.	Foundered.....	Total,
New York, U.S.A., Lewis Port, Newfoundland.	Off Newfoundland N. Atlantic.	Lost some sails.....	Part, 1,300
Glasgow, G.B., Montreal, Que.	At dock in harbour at Montreal, Que.	Bar of iron fell and broke hole in bottom	
New York, U.S.A., St. John, N.B.	Off Cape Cod, Mass., U.S.A.	Collision with Schr.... "Harry Miller".	Part, 500
St. John, N.B., River Hebert, N.S.	Off Chignecto Cape, Cumberland Bay, N.S.	Damaged in gale.....	Part, 200
Coles Wharf, Washade- moak, N.B.	Coles Island, Queens Co., N.B.	Burnt.....	4 Total, 18,150
Halifax, N.S., New York, U.S.A.	3 miles from Bay of Funday.	Lost part deckload of... lath.	12
Weymouth, N.S., Canary Islands.	Stone work at Camp- bell's wharf, Sissiboo River.	Stranded.....	Total,
Halifax, N.S., Souris, P- E.I.	West Quoddy Ledge, N.S., N. Atlantic.	Stranded.....	Total, 4,000
Gloucester, Mass., Fishing Grounds.....	7 miles west of East Point, Gulf St. Law- ence.	Collision.....	Part, 500
Georgetown, P.E.I., St. Pierre.	80 miles west of St. Pierre Micq.	Suffered in gale.....	Part, 900
Weymouth, N.S., Wil- mington, N.B.....	Riding Rocks, Grand Bahames.	Stranded.....	Total,
Mobile, Gulf Port.....	Caribbean Sea.....	Sprung a leak.....	

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage
				Iron or wood. — Steam or Sailing.	
1907		Yrs.			
Feb. 4..	Dorothy M. Porter..... (117,168)	1	Windsor, N. S.....	Schooner, wood, sail...	168
1906					
Nov. 7..	Drusie..... (116,912)	1	Paspebiac, Que	Schooner, wood, sail...	99
Oct. 9..	E. A. Post..... (112,139)	3	Shelburne, N. S.....	Schooner, wood, sail...	199
Dec. ..	E. A. Sabeau..... (90,839)	5	Port Medway, N. S..	Schooner, wood, sail...	249
Dec. 16....	E. A. Sabeau..... (90,839)	5	Port Medway, N. S..	Schooner, wood, sail.	249
1907					
April 6..	E. Merrian..... (80,395)	25	Parrsboro, N. S.....	Schooner, wood, sail.	331
1906					
March 20..	Earl of Aberdeen..... (103,013)	11	Parrsboro, N. S.....	Schooner, wood, sail.	416
1907					
Feb. 1..	Edde Theriault..... (111,895)	2	Weymouth, N. S....	Schooner, wood, sail.	168
1906					
Oct. 9..	Edwin R. Hunt.....	14	Bath, Me., U. S. A..	Schooner, wood, sail.	[1,005
July 16..	Elina.....	1	(Norwegian).....	Schooner, iron, steam	
July 4..	Elsie..... 116,441)	3	Liverpool, N. S.....	Schooner, wood, sail.	149
1907					
June 13	Elsie..... (116,441)	4	Liverpool, N. S.....	Schooner, wood, sail.	149
	Eliza Mac..... (100,706)	6	Pictou, N. S.....	Schooner, wood, sail.	85
1906					
April 12..	Emilie Andrie..... (4,448)	16	St. Pierre, Micq.....	Schooner, wood, sail .	116
Dec. 5..	Emma R. Harvey.....		(American).....	Schooner, wood, sail.	300
March 14..	Empress..... (107,761)	5	Charlottetown, P. E. I.	Schooner, wood, sail.	335
Dec. 3..	Ensenda..... (94,735)	17	Windsor, N. S.....	Bk., wood, sail.....	999
Sept. 15..	Eric..... (96,941)	16	St. John, N. B.....	Schooner, wood, sail .	119
Nov. 7..	Eric..... (96,941)	16	St. John, N. B.....	Schooner, wood, sail.	119
Oct. 12.	Eva Stewart..... (83,136)	17	Parrsboro, N. S.....	Schooner, wood, sail.	98
Oct. 7..	Eventide..... (100,737)	13	Windsor, N. S.....	Schooner, wood, sail.	97

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906-7.

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Bonaire, New York, U.S.A.	Lat. 36°, 20' N., long. 72°, 50' W. Gulf Stream.	Lost foretop-jibboom and gear.	100
Barbados, Paspebiac....	Lat. 37°, 0' N. Long. 63°, 50' W. Atlantic.	Lost sails and sprung a.... leak.	Total, 10,000
Shelburne, N.S., Phila- delphia, U.S.A.....	Corn Island, Nicaragua	Stranded.....	
New York, U.S.A., New York, U.S.A.	45 40 L. 57. 40 S. Mamo Bank..	Stranded.....	Part.
Port of Spain, Philadel- phia, U.S.A.	35 miles N.W. of Port of Spain, Carribean Sea.	Last Topmast and sails....	
Bridgeport, Conn. U.S.A., St. John, N.B.....	Off Chatham, Mass., U. S.A.	Lost both anchors and.... part of chain.	
Fairport, N.S., New York, U.S.A.	No. of Georges' Bay of Funday, N.S.	Lost foresail and dam-.... aged Cut water.	Part, 700
Boston, U.S.A., Wey- mouth, N.S.	East side draw pier Ry. Bridge, Sissiboo Riv.	Stranded.....	Slight.
Boston, Mass., St. Ann, Chester, Pa.		Put into Halifax leaky	
Sydney, N.S., Three Riv- ers, Que.	In the river at Quebec,	Collision with the "Arctic".	No damage.
New Bedford, Mass, U.S.- A., Port Clyde, N.S....	26 miles S. W. from Seal Island No. Atlantic.	Collision with un-.... known steamer.	Part.
Plenque, San Domingo, San Domingo.	Plenque Harbour, Caribbean Sea.	Stranded.....	Total, 8,000
Summerside, P. E. I., Wallace, N.S.....	2½ miles off Cape Tormentine, Northum- berland Sts.	Foundered.....	Total, 2,500
St. Pierre, Micq., Sydney, N.S.	Little Loraine, Cape Breton.	Stranded.....	Total, 2,500
Apple River, N.S., Boston U.S.A.	5 miles E. Digby Gut, N.S., Bay of Fundy.	Sprung a leak in gale....	Total.
Havana, St. Johns, Nfld. U.S.A.	Cape Harbour, No. Atlantic.	Lost sails.....9.....	
Buenos Ayres, New York, U.S.A.	36° 10' N. Lat, 70°, 0' W. Long, Atlantic.	Spars and rigging dam-.... aged.	Part.
St. John, N.B., New Haven, U.S.A.	Vineyard Haven, Mass. U.S.A.	Lost anchor.....	
St. John, N.B., Vineyard Haven.	Off Maine.....	Lost portion of cargo.... and some sails.	
Windsor, N.S., Boston, Mass.	Off Isle Haute, Maine, U.S.A.	Lost some sails.....	
Summerside, Paspebiac, Que.	P.E.I., Paspebeac, Que., St. Lawrence.	Stranded.....	Total.

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Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906		Yrs.			
Nov. 5..	Evolution..... (94,855)	17	Parrsboro, N. S.....	Schooner, wood, sail.	173
Sept. 24.	Exception..... (100,517)	14	Parrsboro, N. S.,...	Bktn., wood, sail....	318
March 18..	F. B. Lovitt..... (100,318)	14	Yarmouth, N. S.	Bktn., wood, sail....	554
July 9..	F. B. Lovitt..... (100,318)	14	Yarmouth, N. S.	Bktn., wood, sail....	554
June 10..	F. W. Pickels..... (111,997)	4	Annapolis, Royal, N. S.	Schooner, wood, sail .	315
1907					
April 21 ..	Fauna..... (97,093)	16	Windsor, N. S.....	Schooner, wood, sail .	121
May 2..	Fimreite.....	1	Bergen, Norway....	SS., steel, steam.....	2,475
1906					
Dec. 19.	Fern..... (111,983)	4	Vancouver, B. C....	Sloop, wood, steam...	17
Aug. 10..	Fleur-de-Lis..... (100,891)	12	Digby, N. S.....	Schooner, wood, sail.	17
Sept. 27..	Flora Temple..... (103,397)	48	Port Hawkesbury, N. S.	Schooner, wood, sail.	55
Dec. 1..	Flora Temple..... (103,397)	48	Port Hawkesbury, N. S.	Schooner, wood, sail.	55
Sept. 20..	Florence..... (95,296)	17	West Hartlepool....	Steel, steam.....	1,609
Aug. 30..	Florence May..... (96,729)	16	Chatham, N. B.....	Schooner, wood, sail .	74
Oct. 17..	Frances..... (111,891)	3	Weymouth, N. S....	Schooner, wood, sail .	259
Nov. 3..	Frank..... (107,187)	9	Charlottetown, P. E. I.	Schooner, wood, "sail"	30
May 28..	Frank and Ira..... (103,254)	12	St. John, N. B.....	Schooner, wood, sail.	98
Aug. 31..	Frank and Ira..... (103,254)	12	St. John, N. B.....	Schooner, wood, sail.	98
Nov. 29..	Freedom..... (122,006)	1	Lunenburg, N. S....	Schooner, wood, sail.	197
1907					
Jan. 23..	Free Trade..... (103,021)	12	Moneton, N. B.....	Schooner, wood, sail .	73
1906					
May 31..	G. B. Lockhart.....	19	Windsor, N. S.....	Wood, sail.....	295
Nov. 4..	G. M. Cochrane..... (116,902)	1	Parrsboro, N. S.....	Schooner, wood, sail.	220
Nov. 4..	Garfield.....	22	Arandalc, Norway..	Bk., wood, sail.....	671
July 5..	Gaspeseau.....		Quebec, Que.	Schooner, iron, steam.	287
May 29..	Geo. T. Hay.....	19	Parrsboro, N. S....	Schooner, wood, sail.	1,647

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906-7.

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Campbelltown, Bridge- port, Conn.	Provincetown, Mass., U.S.A.	Waterlogged. Lost sails.... and deckload of lath.	
Pascagoula, Miss., Hava- na, Cuba.	Off Havana, Cuba.	Lost in hurricane.....	8 Total, 10,000
Yarmouth, N.S., Beunos Ayres.	Lat. 48°, 50' N., long. 60°, 75' W. Atlantic.	Main boom broke.....	1
Buenos Ayres, Philadel- phia, U.S.A.	Lat. 34°, 27' S., long. 44°, 18' W., So. Atlantic.	Lost sails.....	
Colon, Savannah.....	Lat. 22°, 40' N., long. 86°, 2 W., Gulf Mex- ico.	Lost 3 sails.....	
Halifax, N.S., New York, U.S.A.	Lat. 40°, 45' N., long. 69°, 11' W. Atlantic.	Lost cross trees and....	Part, 1,000
Boston, Mass., U.S.A., Louisburg, N.S.	Whitehead, Atlantic.	Stranded.....	Part, 16,000
Ladysmith, B.C., Victoria B.C.	Cadboro Ph. entrance to Baynes Channel.	Stranded.....	Part.
Digby, N.S., Yarmouth, N.S.	Cape Sable, N.S., Atlantic Ocean.	Stranded.....	Part, 300
Halifax, N.S., Port Hood, N.S., Margaree.	Entrance to Margaree Harbour, Gulf St. Lawrence.	Stranded.....	Trifling.
Halifax, N.S., Margaree.	5 miles N.E. from Port Hood, N.S., Gulf St. Lawrence.	Lost sails and stranded....	Total, 2,900
At wharf, St. John, N.B.	Pettingill's wharf, St. John, N.B.	Cargo on fire.....	No loss.
Sydney, C.B., Buctouche, N.B.	Tormentine Cape Northumberland Straits.	Stranded.....	Total
Weymouth, N.S. Havanah, Cuba.	Havanah Harbour, Cuba.	Collision.....	
Cheticamp, N.S., St. Pierre, Micq.	Cheticamp Bar, Cape Breton, N.S.	Stranded.....	Part, 75
St. John, N.B., Boston, Mass., U.S.A.	E.N.E. off Cape Ann, Mass., U.S.A.	Last part of deck load....	
New Haven, Conn., St. John, N.B.	Cedar tree neck near west chap. light.	Stranded.....	Part.
Halifax, N.S., New York, U.S.A.	10 miles N.E., from Heightland Light, U.S.A.	Lost portion deck load....	Part, 200
Parrsboro, N.S., Grand Manan.	McCays Head, Cape Spencer, Can.	Stranded.....	Total, 3,000
New York, U.S.A., Curacao.	Bonaire, Carribbean Sea.	Stranded.....	Total,
Parrsboro, N.S., New Haven, Conn.	Nantuckett Beach, Mass., U.S.A.	Wrecked.....	Total,
Port Richmond, Glasgow, G.B.	North Side of P.E.I., Gulf St. Lawrence.	Sprung a leak.....	Part, 4,500
Quebec, Que.....	Victoria Pier, Montreal	Coll'on with steam elevator	Part.
Rosario, Ludriz Bay.....		Abandoned at sea.....	Total.

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. Steam or Sailing.	
1906		Yrs.			
Aug. 25..	Gimle.....		Norwegian, Norway.	Schooner iron, steam	699
Sept. 27..	Glenafton..... (100,003)	16	Annapolis, N. S.....	Schooner, wood, sail.	344
Feb. 14..	Greta..... (107,972)	8	Dorchester, N. B....	Schooner, wood, sail.	146
March 9..	Gypsum Emperor..... (100,279)	14	Windsor, N. S.....	Schooner, wood, sail.	644
1907					
Jan. 29..	Gypsum Empress..... (100,731)	15	Windsor, N. S.....	Schooner, wood, sail.	723
Dec. 18	H. H. Kitchener..... (111,448)	6	Lunenburg, N. S....	Schooner, wood, sail.	100
Sept. 7..	H. H. Kitchener..... (111,418)	6	Lunenburg, N. S....	Schooner, wood, sail.	100
April 20..	H. M. Stanley..... (96,957)	16	St. John, N. B.....	Schooner, wood, sail.	
1907					
Jan. 22..	H. R. Emmerson..... (90,619)		Moncton, N. B.....	Schooner.....	
1906					
July 8..	Harlyn.....	14	West Hartlepool... U. K.	Schooner, steel, steam	928
1907					
March 17..	Harry W. Lewis..... (96,758)	18	St. John, N. B.....	Schooner, wood, sail.	291
1906					
April 12..	Hortensia..... (11,747)	38	Maehies, Me.....	Schooner, wood, sail.	161
Dec. 8..	Hazel Glen..... (85,554)	22	Annapolis, N. S....	Schooner, wood, sail.	89
Sept. 29..	Hector..... (88,694)	20	St. John, N. B.....	Bkn., wood, sail.	498
Jan. 23	Hector..... (88,694)	21	St. John, N. B	Bkn., wood, sail.	498
1906					
Oct. 17..	Helen E. Kenney..... (100,067)	16	St. John, N. B.....	Schooner, wood, sail.	294
Dec. 17..	Henriette..... (112,254)	33	Vancouver, B. C....	Schooner, wood, sail.	96
Sept. 3..	Hibernia..... (100,347)	3	Maitland, N. S.....	Schooner, wood, sail.	298
July 29..	Hilda C..... (107,659)	7	Lunenburg, N. S....	Schooner, wood, sail.	99
April 6..	Hilda C..... (107,659)	7	Lunenburg, N. S. ...	Schooner, wood, sail.	99
Oct. 20..	Hugh G..... (116,903)	1	Parrsboro, N. S.....	Schooner, wood, sail.	430
1907					
Jan. 23..	Hugh G..... Horace G. Morse ...	1	Parrsboro, N. S....	Schooner, wood, sail.	430
Jan. 19..	(116,903)	17	Sommers' Point, N.	Schooner, wood, sail.	388

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.	
Chester, Pa., St. Ann's, Off coast A. ocean		Broke propellor Blade		
C.B.				
Mobile, Caybarian	Gulf of Mexico	Encountered storm of	Part,	4,500
		great violence.		
Dalhousie, N.B., Boston, Shovelful Shoal near		Stranded		
Mass., U.S.A.	Boston, Mass, U.S.A			
Halifax, N.S., New York, Lat. 40°, 20' N., long.		Broke foregaff and split sail		125
U.S.A.	69°, 0' W. Atlantic.			
Bridgewater, N.S., New LaHave River, N.S.		Stranded		
York, U.S.A.				
Gaspe, Que., New Bedford Off Chatham, Mass.,		Lost both anchors and	Part,	300
Mass., U.S.A.	U.S.A.	100 fathoms chain		
Picton, N.S., Paspebiac	Paspebiac, Harbour,	Stranded		1,000
	N.S., Gulf St. Law-			
	rence.			
St. John, N.B., Paw- Handkerchief Shoal, Lost anchors				
tucket, R.I., U.S.A.	Vineyard Haven.			
	Vineyard Haven,	Broke propellor blades		125
St. John, N.B.	U.S.A.			
Frapani, Gloucester, Mass Black Point, Shelburne		Stranded	Total,	
U.S.A.	N.S.			
St. John, N.B., New York, Vineyard Haven, Mass. Lost some sails				
U.S.A.	U.S.A.			
Apple River, New York, Cumberland Bay, N.S. Stranded			Part,	2,000
U.S.A.				
Port Johnson, N.B., Free-Off Block Island, N.S. Lost foresail				
port, N.S.				
Mobile, Guantonomo,	Gulf Mexico	Encountered storm	Part,	2,700
Mobile, Guantonomo	30°, 10' N. Lat., 87° 18'	Heavy weather		
	W. Long. Gulf Mex-			
	ico.			
Pascagola, Havana	Havana Harbour, Cuba	Collision	Part,	1,200
St. John, N.B., Boston, In passage from St. Lost some sails				
Mass., U.S.A.	John to Boston, Mass			
Barcona, New York, U.S.- Lat. 34°, 0' N., long. Lost main sail and jib			Part,	300
A.	73°, Atlantic.			
New York, U.S.A., Blue- Harbour Bar, Blue- Stranded			Total,	5,000
fields, Nicaragua.	fields Nicaragua,			
	Caribbean Sea.			
Shelburn, N.S., New York Vineyard Haven, Mass. Sprung Main mast				
U.S.A.	U.S.A.			
New York, U.S.A., Port Off Norwalk Island, Damaged by Collision				500
Greville, N.S.	Conn., L.I. Sound.			
Port Greville, N.S., New Off Portland, Maine, Lost jibbom, foresail			Part,	570
York, U.S.A.	American Coast	jib and head gear		
St. John, N.B., Philadel- Point Bliss, Charlotte Stranded			Total	21,252
phia, U.S.A.	Island, U.S.A.			

6-7 EDWARD VII., A. 1902.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906					
Oct. 29..	Hornet..... (85,506)	24	St. John, N. B.....	Bktn., wood, sail.....	407
1907					
Feb. 10..	Ida M. Clark..... (111,687)	4	Shelburne, N. S.....	Schooner, wood, sail.	99
1906					
Nov. 6..	Ivanhoe..... (111,638)	5½	Lunenburg, N. S....	Schooner, wood, sail.	100
1904					
Nov. 5..	Ivanhoe..... (116,588)	1	Liverpool, N. S.....	Schooner, wood, sail.	99
1906					
Sept. 27..	J. B. Martin..... (100,001)	16	Annapolis, N. S....	Schoonier, wood, sail.	99
Nov. 10..	J. D. Everett..... (94,731)		Windsor, N. S.....	Wood, Sail.....	1,957
Nov. 10..	J. E. Graham..... (83,204)		Windsor, N. S.....	Wood, sail.....	1,369
Nov. ..	J. L. Colwell..... (111,510)	5	St. John, N. B.....	Schooner, wood, sail.	99
1907					
Feb. 25..	J. W. Hutt..... (111,694)	6	Liverpool, N. S.....	Schooner, wood, sail.	349
1906					
	Jennie May..... (103,491)	11	Lunenburg, N. S....	Schooner, wood, sail.	88
	Jessie..... (855,809)	32	Halifax, N. S.....	Wood, sail.....	36
Oct. 7..	John G. Walter..... (116,325)	3	Parrsboro, N. S.....	Schooner, wood, sail.	209
Oct. 7..	Keewaydin..... (94,853)	17	Parrsboro, N. S.....	Schooner, wood, sail.	187
June 7..	Keewaydin..... (94,853)	17	Parrsboro, N. S....	Schooner, wood, sail.	187
Nov. 11..	Kensington..... (102,155)	12	Liverpool, G. B.,...	4 masts, steel, steam.	5,645
Sept. 27..	Kig of Avon..... (112,064)	2	Windsor, N. S.....	Schooner, Wood, sail	417
Nov. 17..	L'Anglon..... (116,228)	4	Quebec, Que.....	Sloop, wood, sail....	24
May 28..	Laconia.....	16	Barbadoes, B. W. I.	Schooner, wood, sail.	485
Feb. 12..	Lady Napier..... (107,765)	4	Charlottetown.....	Bgne., wood, sail.....	210
Sept. 25..	Lady Napier..... (107,765)	4	Charlottetown, P. E. I.	Bgtn., wood, sail.....	210
March 17..	Landskrona..... (88,399)	20	Windsor, N. S.....	Bk., wood, sail.....	1,330
Dec. 1..	Laura..... (107,290)	5	Liverpool, N. S.....	Schooner, wood, sail.	299

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906-7.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.	
At Mobile wharf, U.S.A.	.....	Stranded during hurri- cane and tidal wave	Part,	\$10,000
Porto Rico, Turk's Island, Lockport, N.S.	Lat. 33°, 30' N., long. 67°, 51' W. No. Atlantic.	Sprung a leak.	Part.	
Perth Amboy, N.J., U.S.A. Popes' Harbour, N.S. Ch'town, P.E.I.	Middle Ledge off Isaac' Harbour, N.S.	Stranded.	Total,	5,100
Halifax, N.S., Bahamas.	From 600 to 700 S. W. from Halifax, N.S.	Lost at sea.	7 Total.	
Bonaventure, Boston, Mass., U.S.A.	Egmont Bay, P.E.I., Northumberland, str.	Stranded.	Part.	
Boston, Mass., U.S.A., Buenos Ayres.	Buenos Ayres, Argen- tine Rep	Stranded.	Trifling.	
Boston, Mass., U.S.A., Buenos Ayres.	Roads, Buenos Ayres, Argentine Republic.	Stranded.	Serious.	
Port Johnson, N.J., St. Andrews, N.B.	Kitteny Pt.	Stranded		
Gulf Port Mail, Sandy Hook.	Lat. 8°, 30' N., long. 53°, 20' W. Atlantic.	Lost some sails.		
Halifax, N.S., Bay St. George, Newfoundland.	Canso Harbour, N.S.	Collision with Schr. "Sea Foam."	Part,	150
Port Hastings, N.S., Guys- boro, N.S.	Medford Haven at Old Bridge, Guysboro, N.S.	Foundered.	Total,	480
New York, U.S.A., Amherst, N.S.	Wood Point, N.B., Cumberland Bay.	Stranded.	Part,	1,300
New York, U.S.A., Wolfe- ville, N.S.	2 miles E. Horton's Point Long Island, N. Y., U.S.A.	Stranded.	Total,	6,000
Providence, R.I., Parrs- boro, N.S.	Off Tarpoulin Cove, N.S.	Collision.		
Liverpool, N.S., Montreal, Que.	Matane Light S. 66 W. true 2½ miles, Gulf St. Lawrence.	Stranded.	Part,	12,000
Cienfuegos, Cuba, Mobile, Ala., U.S.A.	Port Morgan, Mobile, Bay, U.S.A.	Totally wrecked in hurricane.	14 Total,	23,000
Portneuf, Trois Pistols...	Trois Pistols' wharf, St. Lawrence, Que.	Stranded.	Total,	2,500
Port Greville, Stocton, Maine, U.S.A.	Mouth of Port Greville River, N.S.	Grounded.	Part,	
Philadelphia, U.S.A. Bluefields.	Off South Carolina Coast, U.S.A., At- lantic.	Lost top sails and yards.	Part.	
Edgewater, N.J., U.S.A., Charlottetown, P.E.I.	Vineyard Sand, U.S.A.	Stranded.		
Port Townsend, Delgava Bay.	Ruben Point Light House Delgova Bay.	Stranded.		
Halifax, N.S., New York, U.S.A.	Vineyard Haven, Mass. U.S.A.	Lost anchor and fathoms' chain.	75....	

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906		Yrs.			
	Lavonia..... (116,326)	3	Parrsboro, N. S.....	Schooner, sail.....	266
Aug. 5..	Lena M..... (116,723)	2	Halifax, N. S.....	Schooner, wood, sail.	27
1907					
Jan. 27.	Lena Maud..... (100,876)	14	St. John, N. B.....	Schooner, wood, sail.	98
1906					
Nov. 4..	Leo..... (100,075)	15	St. John, N. B.....	Schooner, wood, sail.	93
Aug. 17..	Leuctra..... (110,542)	7	Liverpool, N. S.....	Steel, steam.....	1,950
July 10..	Levose..... (83,251)	25	Weymouth, N. S...	Schooner, wood, sail.	86
Oct. 31..	Lilian..... (61,528)	35	Guysboro, N. S.....	Schooner, wood, sail.	41
March 2..	Luarca..... (100,266)	18	Windsor, N. S.....	Schooner, wood, sail.	632
Feb. 18..	Lucile..... (75,399)	30	Sydney, C. B.....	Schooner, wood, sail.	115
March 1.	Luella.....	1	Chatham, N. B.....	Schooner, wood, sail.	99
Aug. 22..	M. D. S..... (107,306)	6	Windsor, N. S.....	Schooner, wood, sail.	190
Feb. 25..	M. D. S..... (107,306)	7	Windsor, N. S.....	Schooner, wood, sail.	190
1907					
Feb. 23..	McKinley.....	20	Arendal.....	Bk., wood, sail.....	965
1906					
Oct. 13..	Maggie..... (100,169)	14	Lunenburg, N. S....	Schr., wood, steam...	13
July 2..	Maggie Miller.....	19	St. John, N. B.....	Schooner, wood, sail.	93
Feb. 22..	Maggie Belle..... (116,516)	1	Lunenburg, N. S....	Bk., wood, sail.....	99
Nov. 23..	Magie..... (77,739)	27	Digby, N. S.....	Schooner, wood, sail.	27
1905					
Aug. 22..	Malabar..... (94,775)	19	Charlottetown, P. E. I.	Schooner, wood, sail.	98
1906					
March 20..	Malwa..... (107,309)	5	Windsor, N. S.....	Schooner, wood, sail.	540
1907					
Feb. 6..	Maple Leaf..... (107,567)	7	Parrsboro, N. S.....	Schooner, wood, sail.	98
1906					
Dec. 23..	Maple Leaf..... (107,567)	7	Parrsboro, N. S.....	Schooner, wood, sail.	98
1907					
Feb. 22..	Maple Leaf..... (111,721)	5	Lunenburg, N. S....	Schooner, wood, sail.	199

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.	
.....	100 miles East of Chatham and in Vineyard Haven.	Last Deckload and anchor.		
Souris, P.E.I., White Haven, Conn.	Ball Breaker South West of Cranberry Island Light.	Stranded.....	Total,	2,000
New London, Conn., St. John, N.B.	Vineyard Haven, Mass. U.S.A.	Broke rudder.....		
Parrsboro, N.S., Boston, Mass., U.S.A.	Just outside Boston Harbour.	Broke jibboom, and Eccentric Rod.	Part,	250
St. John, N.B., Dublin.	Off St. John, N.B.....			
Rockport, Me., Rockport, Me., U.S.A.	2 miles west of Weymouth, Digly.	Stranded.....	Total,	600
Port Hood, Rustico.....	Rustico Harbour.....	Stranded.....	Part,	550
Halifax, N.S., Boston, U.S.A.	.....	Collision with city ferry boat.		
St. John's Newfoundland, Pernambuco.	Lat. 36°, 15' W., long. 41°, 20' Atlantic.	Foundered.....	Total.	
Macoris, New York, U.S.A.	Lat. 20°, 30' N., long. 68°, 12' W. Atlantic	Broke bowsprit.....	Part,	125
New York, U.S.A., Hantsport, N.S.	Off Cape Blomidon, Bay Fundy, N.S.	Stranded.....	Part,	1,500
Halifax, N.S., New York, U.S.A.	Nantucket Shoals, Mass	Grounded.....	Part,	
Barbadas, Ingraham Port	Paspebiac,	Heavy gale.....	Part,	5,000
Arichat, N.S., Canso, N.S.	Canso, Harbour, N.S	Burnt at wharf.....	Total,	1,500
Boston, Mass., U.S.A., Windsor, N.S.	10 miles below West Quoddy, Me.	Collision with Str. Ste. Croix.	Part,	
Mahone Bay, Barbados.	Lat. 23°, 9' N., long. 58°, 10' W. Atlantic.	Lost main top mast and sails.		75
Port LaTour, Yarmouth, N.S.	Bear Pt. Harbour, Bar- ington, N.S.	Stranded.....	Total.	
St. Stephen, N.B., Musquash, N.B., New York, U.S.A.	Musquash River, N.B.	Stranded.....	Total.	
Bridgewater, N.S., New York, U.S.A.	20 miles No. Georges' Bank Atlantic.	Lost part deck load.....	Part,	400
New York, U.S.A., St. Andrews, N.B.	Sharps' Rock Saco Main River, American Coast.	Stranded.....	Part,	1,500
Bass River, N.S., New York, U.S.A.	Falkeners Island, L.I.S	Collision.....	Part,	500
Maderia, Boston, U.S.A.	25°, 30' N., 72°, 50' W., Atlantic.	Foundered.....	Total.	

6-7 EDWARD VII., A. 1908.

STATEMENT of Wrecks and Casualties reported as having occurred to British, Canadian,
in other waters, for the twelve

Date of Casualty	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906 Nov. 5..	Marion C. (117,149)	Yrs. 29	Halifax, N. S.	Bktn., wood, sail.	457
1907 Feb. 6..	Mary C. (83,493)	12	Liverpool, N. S.	Schooner, wood, sail.	84
1902 April ..	Margaret L. (88,514)	6	Sydney, N. S.	Schooner, wood, sail.	169
1906 Sept. 9..	Maxmin Elliott.	4	American.	Schooner, wood, sail.	
Nov. 15..	May Bell. (66,981)	32	St. John, N. B.	Schooner, wood, sail.	78
Nov. 11..	Melba. (107,303)	7	Windsor, N. S.	Schooner, wood, sail.	419
Nov. 30..	Meteor. (110,100)	4	Lunenburg, N. S.	Schooner, wood, sail.	99
1907 April 9..	Mercedese. (100,897)	11	Weymouth, N. S.	Schooner, wood, sail.	148
1906 Nov. 5..	Minnie E. Moody. (94,792)	18	Richibucto, N. B.	Schooner, wood, sail.	112
Dec. 9..	Minnie M. Cook. (107,952)	6	Lunenburg, N. S.	Schooner, wood, sail.	84
1907 March 22..	Mona. (116,585)	3	Liverpool, N. S.	Schooner, wood, sail'	299
1906 May 11..	Mystery. (90,845)	15	Guysboro, N. S.	Schooner, wood, sail.	190
1907 Feb. 6..	Mystic. (112,799)	6	London, G. B.	Schooner, steel, stm. .	2,432
Jan. 13..	Nanna.	6	Bergen, Norway.	Schr., steel, steam.	699
April 30..	Nanna.	6	Bergen, Norway.	Schr., steel, steam.	699
March 27..	Narka. (103,750)	11	Lunenburg, N. S.	Schooner, wood, sail.	154
1906 July 30..	Nellie Carter.	12	Parrsboro, N. S.	Schooner, wood, sail.	78
Sept. 3..	Nellie Watters. (92,368)	19	St. John, N. B.	Schooner, wood, sail.	96
1907 March 19..	New Era. (107,968)	7	Liverpool, N. S.	Schooner, wood, sail.	115
1906 Nov. 3..	North Star. (88,443)	12	Charlottetown, P. E. I.	Schooner, wood, sail.	35
July 29..	Nyassa. (108,791)	7	Glasgow, G. B.	Sch., steel, steam ...	1,785
Oct. 1..	Oceanic. (116,502)	2	Lunenburg, N. S.	Schooner, wood, sail.	99

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30th, 1906.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and Nature of Casualty.	Remarks.
Bridgewater, N.S., New York, U.S.A.	67°, 20' W., 42°, 18' N. N. Atlantic.	Foundered at sea.....	Total, 8,000
Halifax, N.S., Lockeport.	35 miles south of Cape Sable Atlantic ocean	Foundered.....	Total.
Boston, Boston, Mass., U.S.A.	Gulf Stream off Nor- folk, U.S.A.,	Sprung a leak and... abandoned.....	Total, 5,000
	N.W. Bar, Sydney, N.S.	Stranded..	No damage.
Shulee, N.S., St. John, N.- B.	Off Cape Spencer N.B.	Lost some sails.....	Part, 550
Campbelltown, N.B., Vineyard Haven.	Off Whitehead, Me., U.S.A.	Lost part deckload of... lath.	
Ingraham Docks, N.S., New York, U.S.A.	54th St. North River, New York, U.S.A.	Sail partly burned.....	
Clementsport, N.S., Bos- ton, U.S.A.	Off Portland, Maine.	Lost part of deckload	
Campbellton, N.B., New Bedford, Mass., U.S.A.	Vineyard Haven, Mass. U.S.A.	Lost part of deckload.....	
Port Hood, C.B., Clark's Harbour, N.S.	Buttery Shoal, Lunen- burg, N.S.	Stranded.....	Part, 500
St. John, N.B., Philadel- phia, Pa., U.S.A.	Baracoa Harbour, Cuba.	Stranded.....	Total, 5,000
Barbadoes, St. John's, Newfoundland.	Near Cape Price, New- foundland.	Wrecked.....	Total, 3,500
Newcastle, G.B., Louis- burg, N.S.	Stapleton Rock, Hali- fax, N.S.	Stranded.....	Part, 15,000
Halifax, N.S.; New York, U. S. A.	30 miles w. s. w. Seal Island, Coast of N. S.	Broke propellor shaft.....	Part 2,500
Portland, Hopewell, N. B.	20 miles E. Mount De- sert Rock, Atlantic, N. S.	Lost propellor.....	Part 650
Lunenburg, N. S., Barba- does, W. I.	Lat., 34° 0' n., long., 61° 40 w., N. Atlantic	Foundered.....	Total 8,000
Apple River, Parrsboro...	Pudsey's Point, mouth of Apple River.	Ran ashore in fog.....	Total
St. Johns, N. B.; Storm- ington, Conn.	Nantucket Bar, U. S...	Stranded.....	
Liverpool, N. S.; Thames- ville, U. S. A.	Lat., 42° 35' n., long., 68° 2' w. Atlantic	Lost deckload and fore ... sail.	Part. 1300
Milon, Cheticamp, N. B.	West side Port Hood Harbour, N. S.....	Stranded.....	Total 850
Glasgow, G. B.; Montreal, Three Rivers.	Contrecoeur Channel, River St. Lawrence	Stranded.....	No damage.
Mahone Bay N.S.; New York, U. S. A.	2 miles from Stratfort Shore Light, Long Island Sound.	Lost deckload and some spars.	Part 3,100

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian,
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged. — Iron or wood. — Steam or Sailing.	Register Tonnage.
1906					
March 15..	Ohio..... (80,100)	24	St. John, N. B.....	Bktn., wood, sail....	325
Sept. 16..	Ohio..... (80,100)	24	St. John, N. B.....	Bktn., wood, sail....	325
1907					
Jan. 10..	Ontario..... (94,786)	18	Lunenburg, N. S....	Schooner, wood, sail.	89
1906					
Nov. 30..	Onward..... (103,259)	11	St. John, N. B.....	Schooner, wood, sail.	92
Dec. 2..	Oregon..... (112,106)	3	Lunenburg, N. S....	Schooner, wood, sail.	99
July 30..	Pallas.....	25	(Norwegian).....	Barque, wood, sail...	579
1905					
Oct. 6..	Peter Mitchell..... (75,892)	28	Port Hawkesbury, N. S.	Schooner, wood, sail.	26
1906					
Nov. 6..	Pheasant..... (111,952)	3	New Westminster, B. C.	Wood, steam.....	158
1907					
March 24..	Platena..... (106,879)	9	Liverpool, G. B....	Steel steam.....	2,044
1906					
Sept. 11..	Polino..... (62,598)	36	Quebec, Que.....	Iron, steam.....	524
July 28..	Pors.....	3-4	(Norwegian).....	Schooner, steel, stm.	344
1907					
Feb. 16..	Portland..... (95,844)	22	Port Townsend, Wash., U. S. A...	Schr., wood, steam...	966 966
1906					
Dec. 18..	Preference..... (100,738)	13	Windsor, N. S.....	Schooner, wood, sail.	243
Oct. 16..	Princess Victoria..... (115,953)	3	London, G. B.....	Schr., steel, stea m..	428
July 21..	Princess Victoria..... (115,953)	3	London, G. B.....	Schr., steel, steam....	428
April 11..	Priscilla..... (111,509)	6	St. John, N. B.....	Schooner, wood, sail.	102
Nov. 4..	R. W. Smith..... (69,203)	31	Lunenburg, N. S....	Schooner, wood, sail.	74
1907					
Feb. 25..	Ran.....		Bergen, Norway....	S.S., iron, steam....	1,947
1906					
July 30..	Preference..... (100,738)	13	Windsor, N. S.....	Schooner, wood, sail.	243
Nov.] 14..	Reform..... (108,889)	12	Yarmouth, N. S....	Bgtn., steel, sail....	545
Nov. 4..	Regina B..... (83,133)	25	Halifax, N. S.....	Schooner, wood, sail.	79

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.
New York, U. S. A.; La Have, N. S.	Vineyard Haven, Mass. U. S. A.	Lost anchors and 30 fathoms chain.	30....
Brunswick, Louisburg, C. B.	Lat., 34° 30 n., long., 75° 25 w. Atlantic.	Wrecked.....	
Bay St. George, Nfld., Halifax, N. S.	Three Rock Cove, Cape St. George, Nfld., Gulf St. Lawrence.	Stranded.....	Total 5,500
St. John, N. B.; Boston, U. S. A.	Stonington, Maine, U. S. A.	Stranded.....	Part.
Ingraham Dock, New York, U. S. A.	S. W. by S. 70 miles from Cape Sable, Atlantic.	Lost part of deckload	Part. 200
Havre (France), N. B.	Shediac, Mininiegash, Gulf St. Lawrence.	Stranded.....	Part. 5,000
Ship Harbour, N. S.; Halifax, N. S.	Three Fathom Harbour, N. S.	Stranded.....	Total 1,200
Port Essington, B. C....	Red Rock Rapids, Skeena River.	Stranded.....	Part.
Liverpool, New York....	Lat., 45° 16 n., long., 69° 06' w. West Cape Race.	Damaged by ice.....	Part. 800
Port Hood, Quebec.....	Goose Island, St. Lawrence.	Stranded.....	Part. 10,000
Louisburg, N. S., Yarmouth, N. S.	Port Manton Isl., N. S., Atlantic.	Stranded.....	Part. 2,500
Seward, Ala., U. S. A.	Seattle, Entrance Island, Georgia, Canada.	Stranded.....	Part. 10,000
Liscombe, N. S., New York.	Vineyard Haven, Mass. U. S. A.	Lost portion of deck-load of lath.	....
Victoria, B. C., Vancouver B. C.	Fiddle Reef Light, Baynes Channel, B. C.	Stranded.....	Part.
Victoria, B. C., Vancouver	Brockton Point, Vancouver Narrows.	Collision with "Chelalis."	.... No damage.
St. John, N. B.; New York, U. S. A.	1 mile from Crossky's Lightship, Nantucket, Mass.	Collision.....	Part. 2,000
Sydney, N. S.; Bridge-water, N. S.	12 miles e. s. e. of Egg Island, N. S.	Lost sails and mast in hurricane.	Part. 2,100
Rotterdam, Philadelphia..	Off Nfld. Banks.....	Broke propellor blades....	Part. 6,000
St. John, N. B.; Bridgeport, U. S. A.	Chatham, Mass., U. S.	Lost anchor and 15 fathoms chain.	....
Bridgewater, N. S.; Martins.	St. East Coast Barbadoes, Carribean Sea.	Stranded.	Total
Digby, N. S.; Port Hood, N. S.	West side Port Shed, N. S.	Stranded.....	Part. 2,000

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906					
May. . .	Reynard..... (111,677)	57	Parrsboro, N. S.	Bgtn., wood, sail.....	560
	Reynard..... (111,677)	57	Parrsboro, N. S.	Bgtn., wood, sail., , .	560
	Ripples..... (64,033)		Port Hawkesbury .. N. S.	Schooner, wood, sail.	34
1907					
March 23..	Robert Ewing..... (100,516)	15	Bridgetown, Barbadoes	Schooner, wood, sail.	399
1906					
Oct. 16..	Roma..... (107,125)	7	Lunenburg, N. S.	Schooner, wood, sail.	98
March 30..	Ronald..... (116,328)	3	Parrsboro, N. S.	Schooner, wood, sail.	268
March 9..	Rowena..... (103,261)	10	St. John, N. B.	Schooner, wood, sail.	96
June 14..	S. E. Cove..... (51,781)	40	Halifax, N. S.	Schooner, wood, sail.	54
Sept. 14..	Sadie O'Holmes..... (92,361)	19	Annapolis Royal, N. S.	Schooner, wood, sail.	98
July 23..	St. Bernard..... (107,570)	5	Parrsboro, N. S.	Schooner, wood, sail.	123
Nov. 16..	St. Bernard..... (107,570)	5	Parrsboro, N. S.	Schooner, wood, sail.	123
Nov. 10..	St. Croix..... (94,739)		Windsor, N. S.	Wood, sail.....	653
Nov. 15..	St. Olaf..... (116,321)	3	Parrsboro, N. S.	Schooner, wood, sail.	277
Nov. 23	Scylla..... (85,737)	23	Halifax, N. S.	Schooner, wood, sail.	98
1903					
Sept. 26..	Sea Lily..... (59,489)	34	Lunenburg, N. S.	Schooner, wood, sail.	37
1907					
March 12..	Sellasia..... (113,495)	6	Liverpool, G. B.	S.S., steel, steam.....	2,263
1903					
April 24..	Senateur.....		French.....	Schooner, wood, sail.	50
Oct. 12..	Senlac..... (112,239)	2	St. John, N. B.	Schr., wood, steam...	615
July 24..	Silver Leaf.....	3	Parrsboro, N. S.	Schooner, wood, sail.	283
Nov. 15..	Silver Wave..... (100,062)	15	St. John, N. B.	Schooner, wood, sail.	99
Nov. 14..	Sir Wilfrid..... (85,402)	3	Magdalen Isles., Que.	Schooner, wood, sail.	51
Oct. 25..	Skagit.....	23	Port Townsend, Wash., U. S. A	Bktn., wood, sail.....	443
Nov. 6..	Sirocco..... (100,059)	15	St. John, N. B.	Schooner, wood, sail.	298

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.	
Baracoa, New York.....	During voyage.....	Lost rudder.....	Part.	150
Fernandine, Malanys....	On sand bar at mouth San Juan River, Cuba.	Stranded.		
Georgetown, P. E. I.; Sherbrooke.	Port Bickerton, N. S..	Burnt.....	Total	900
Halifax, N. S.; New York, U. S. A.	West of Halifax, N. S..	Damaged and leaking.....	Part.	300
Shelburne, N. S.; New York, U. S. A.	Pier No. 36, East River N. Y. city, U. S. A.	Collision.....	Part.	500
St. Andrews, N. B.; Phila- delphia, U. S. A.	Winter quarter shoal light, U. S. A.	Collision.....	Part.	1,000
Port Greville, N. S.; New York, U. S. A.	5 miles from Cutler, Mass., U. S. A.	Lost mainsail.....	Part.	220
Souris, P. E. I.; Magdalen Island, Que.	Amherst Harbour, Magdalen Island, Gulf St. Lawrence.	Stranded.....	Total	400
Pictou, N. S.; New Bed- ford, Mass.....	Vineyard Haven, Mass. U. S. A.	Stranded.....		
Greenwich, River Hebert..	Quaco Ledges.....	Struck Quaco Ledge.....	Part.	
Bridgeport, Conn.; Sack- ville, N. B.	Beaver Harbour, N. B. Bay of Fundy.	Stranded.....	Part.	4,000
Portland, Me.; Buenos Ayres.	Boca, Buenos Ayres, Argentine Republic.	Stranded.....	Trifling.	
New York, U. S. A.; Port Williams, N. S.	Off Matimais, Me., U. S. A., Atlantic.	Damaged in gale.....	Part.	600
Musquodoboit, New York.	Long., 68° 50' w., lat., 42° 52' n., Atlantic.	Lost part cargo.	Part.	150
Port Hood, N.S.; Sambro, N. S.	N. W. Beaver Light, N. S.	Stranded.....	Total	525
Savanna, Rotterdam.....	37, 45 n., 64, 30 w., Atlantic.	Smashed steering gear....	Part.	1,000
St. Pierre, Micq.....	Between Amherst and Magdalen Isl., Que., (North side).	Stranded.....	Total	
St. John, N. B.; Yar- mouth, N. S.	Bay of Fundy.....	Damaged in heavy weather.	Part.	4,500
Boston, Mass., Harvey, N. B.	Cape Ernage.	Stranded.....	Part.	
Boston, Mass; Eatonville, N. S.	Splans Cove, e. n. e. off Musquash Lt., N.B..	Stranded.....	Total	2,500
Port Hastings, N. S.; Souris, P. E. I.	South of Entry Isl., M. I., Gulf St. Law- rence.	Collision with s.s. "Amherst."	Part.	25
San Francisco, Cal.; Port Gamble, Wash.....	West Pt. Clooose Bay, N. Pacific.....	Stranded.....	2 Total	
Mobile, Wash., Havana..	25° 45' n., 87° 47' w., Gulf of Mexico.	Waterlogged		

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged.	Register Tonnage.
				Iron or wood. — Steam or Sailing.	
1906					
Oct. 5..	Sirocco..... 100,059	15	St. John, N. B.....	Schooner, wood, sail.	298
March 9..	Sokots..... (111,177)	7	Liverpool, G. B.....	Steel, steam.....	1,969
1904					
March 20..	Stratheona..... (112,057)	4	Windsor, N. S.....	Schooner, wood, sail.	251
1906					
Dec. 21..	Stratheona..... (116,276)	3	Halifax, N. S.....	Schr., wood, steam...	171
Nov. 6..	Sovinto.....	28	Finland, Russia.....	Bk., iron, sail.....	1,615
Nov. 16..	Spray..... (103,145)		Quebec, Que.....	S.S., wood, steam....	9
1907					
Jan. 19..	Star of the East..... (74,620)	30	Windsor, N. S.....	Bk., iron, sail.....	734
1906					
Oct. 25..	Sparmaker..... (77,731)	27	St. John, N.B.....	Schooner, wood, sail.	24
Sept. 22..	Superior..... (111,991)	4	Vancouver, B. C....	Wood, steam.....	30
Nov. 22..	Talmouth..... (103,754)	2	Barrington, N. S....	Schooner, wood, sail.	100
Nov. 18..	Terence C. Lockwood.... (107,990)	5	Shelburne, N. S....	Schooner, wood, sail .	98
Dec. 15..	Themis.....	10	Tonsberg, Norway.. Norway	Schr., steel, steam....	1,208
Au . 12..	Torrens.....	30	Genoa, Italy.....	Bk., comp., sail.....	1,198
Oct. 8..	Torredon..... (92,623)	19	Charlottetown, P. E. I.	Schooner, wood, sail.	97
Dec. 6..	Trader..... (90,506)	21	Parrsboro, N. S.....	Schooner, wood, sail.	72
Nov. 2..	Turret Bell..... (104,263)	12	Newcastle, G. B....	Schr., steel, steam....	1,376
March 28..	Twickenham..... (112,412)	6	London, G. B.....	Schr., steel, steam....	2,736
1907					
April 25..	Universe.....	8	(Norway).....	Schr., steel, steam....	1,635
1906					
Dec. 8..	Venturer..... (92,315)	20	Liverpool, N. S.....	Batn., wood, sail.....	318
1707					
April 2..	Virginia..... (102,097)	6	Lunenburg, N. S....	Schooner, wood, sail.	114
May 13..	Victoria..... (111,409)	6	Lunenburg, N. S....	Schooner, wood, sail.	100

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.	
St. John, N. B.; Cardinas, Cuba.	39° n., 66° w.	Filled with water.	Total	1,500
Liverpool, N. S.; Louis- burg, N. S.	Railway pier, Louis- burg, C. B.; Atlantic	Stranded.	Part.	15,000
Windsor, N. S., Mascons, San Domingo.	Gulf of Mexico.	Stranded.	Part.	4,000
Halifax, N. S.; Port Duf- fern, N. S.	Port Dufferin Harbour, N. S.	Fire in hold.	Total	30,000
Campbellton, N. B.; Mel- bourne, Australia.	Priest Pond, P. E. I.; Gulf St. Lawrence.	Stranded. 10	Total	60,000
Quebec, Que.; Quebec, Que.	Magdalen Isl., St. Law- rence.	Stranded.	Part.	2,500
New York, Axim, Africa..	5° 03' n., 3° 45' w., Axim, W. C. Africa...	Lost bowsprit and broke railing; leak- ing.	Part.	300
St. John, N. B.; Parrsboro N. S.	Ramshead River beach Minas Channel.	Stranded.	Part.	475
Vancouver, B. C., coast- wise.	Paisley Island, Howe Sound, B. C.	Stranded.	Part.	
St. John, N. B.; Boston, Mass., U. S. A.	.....	Lost part deckload.		
Lockeport, N. S., Newark, Shelburne, N. S.	Soldiers' Ledge, Tusket, Yarmouth Co., N. S.	Stranded.	Total	
Vancouver, B. C.; Crofton B. C.	Broken Rock at Brow- ing Passage, Queen Charlottetown Sound B. C.	Stranded.	Total	
Buenos Ayres, Tusket Wedge.	Sunday Point, Yar- mouth, N. S.	Stranded.	Part.	5,000
Gaspe, Que.; Sydney, N. S. Gaspe, Que.	Off East Point Anti- costi, Gulf St. Law- rence.	Foundered.	Total	1,500
Kingsport, N. S.; Monc- ton, N. B.	Shult, N. S.; Cumber- land Bay.	Dragged out of an- chorage.	Part.	100
Sorel, Que.; Pt. Hastings, N. S.	Cable Head, P. E. I.; Gulf St. Lawrence.	Stranded.	Total	
Samarans, Murosan, Van- couver, B. C.	Discovery Lt. Tiddle Reef, Hars Channel.	Stranded.	Part.	
New York, U. S. A.; Pie- tou, N. S.	Seal Cove, White Haven, N. S.	Stranded.	Total	13,000
Elizabethport, N. J.; St. John, N. B.	24 miles s. w. by s. from Whistling Buoy, Old Ship Channel, U. S. A.	Collision with "Har- vest Home."	Part.	200
Lunenburg, N. S.; New York.	Off Georges Bank, Vineyard Haven.	Lost portion deckload.... lath.		
LaHave, N. S.; New York, U. S. A.; Yarmouth, N. S.	New Beacon Light, Yarmouth Harbour, N. S.	Stranded.	Part.	3,500

6-7 EDWARD VII., A. 1908.

STATEMENTS of Wrecks and Casualties reported as having occurred to British, Canadian,
in other waters, for the twelve

Date of Casualty.	Name of Ship.	Age of Ship.	Port of Registry.	How Rigged. — Iron or wood. — Steam or Sailing.	Register Tonnage.
1906					
Aug. 29..	W. J. B..... (92,583)	16	Gaspé, Que.....	Schooner, wood, sail.	66
1907					
Jan. 11..	W. E. & W. L. Tuck....	19	Houtton, Me., U. S..	Schooner, wood, sail.	395
1906					
March 11..	W. H. Baxter..... (117,162)	1	Windsor, N. S.....	Schooner, wood, sail.	330
Dec. 3..	W. N. Zwicker..... (111,724)	5	Lunenburg, N. S....	Schooner, wood, sail.	398
March 10..	W. R. Huntley..... (100,105)	15	Parrsboro, N. S....	Schooner, wood, sail.	167
Nov. 11..	W. S. Wynot..... (11,649)	5	Lunenburg, N. S....	Schooner, wood, sail.	100
Nov. 1..	Wallula..... (88,422)	22	St. John, N. B.....	Schooner, wood, sail.	82
Dec. 8..	Water Witch..... (122,023)	1	Liverpool, N. S....	Schooner, wood, sail.	190
1907					
Jan. 21..	Westport III..... (116,208)	3	Yarmouth, N. S....	Schr., wood, steam..	49
1906					
Nov. 4..	White Wings..... (100,866)	13	Lunenburg, N. S....	Bktn., wood, sail....	396
May 7..	White Wings..... (100,866)	13	Lunenburg, N. S....	Bktn., wood, sail....	396
Sept. 5..	Winona.....	1	Newcastle, G. B....	Steam..... :.....	
1907					
March 5..	Wobun..... (100,709)	5	Pictou, N. S.....	Schooner, steel, stm..	990
1906					
Nov. 15..	Wood Bros..... (103,012)	12	Parrsboro, N. S....	Schooner, wood sail..	68
1907					
Jan. 20..	Yakima, U. S. A.....	4	Gloucester, U. S. A..	Schooner, wood, sail.	71

No. of vessels.....	\$ 317
Tons register.....	131,441
Lives lost.....	55
Damage reported.....	672,466

SESSIONAL PAPER No. 23.

and Foreign Sea-going Vessels in Canadian Waters and to Canadian Sea-going vessels months ending June 30, 1906.

Port sailed from. — Port bound to.	Place where casualty happened.	Cause and nature of Casualty.	Remarks.
Paspebiac, Quebec.....	.....	Stranded.....	Total 1,200
St. John, N. B., Bridge- worth.	2 miles w. of Digby Light, N. S.	Split sails.....	Part. 300
Philadelphia, Sydney, C. B.	Cape Canso.....	Lost some sails.....	
New York, Ingram docks, New York.	Ingram Dock, St. Mar- garet's Bay.	Stranded.....	Part. 1,700
North Sydney, Gander Bay, Nfld.	39° 10' w., 49° 30 n., Sir Charles Hamil- ton's Sound, Nfld.	Stranded.....	Total 4,500
Clarks' Harbour, Port Hood, C. B.	Stoney Isl. Beach, Cape Sable.	Stranded.....	Part. 900
St. John, N. B.; Parrs- boro, N. S.	Bald Rock, Cumber- land Bay.	Abandoned in a water- logged condition.	Total 200
St. Vincents, New York...	St. Vincent Harbour, West Indies.	Lost foretop mast.	Part. 23
St. John, N. B.; Westport N. S.	Cow Ledge, Bay Fundy	Stranded.....	Part. 1,000
LaHave, N. S.; New York, U. S. A..	Lat., 44° 20' n., long., 66° 30' w., Atlantic...	Foundered.....	Total 16,50
Connetable, New York....	Barbados, Atlantic, West Rocks, Owen Sound, Ont.	Vessel leaking about 9.... ft. an hour. Stranded.....	
North Sydney, St. John...	North Atlantic.....	Damaged by ice.....	Part 5,000
St. John, N. B.; Spencers' Island, N. S.....	Spencers' Island Beach Minas Channel.	Stranded.....	Part. 1,500
Gloucester, Woods' Har- bour, N. S.	Stag Harbour, Sound, Canning, N. S.	Stranded.....	Trifling.

SUPPLEMENT

TO THE

FORTIETH ANNUAL REPORT OF THE DEPARTMENT OF MARINE
AND FISHERIES FOR THE FISCAL YEAR 1907.

STEAMBOAT INSPECTION REPORT

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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

1908

REPORT OF THE CHAIRMAN

OF THE

BOARD OF STEAMBOAT INSPECTION

CHAIRMAN'S OFFICE, OTTAWA, October, 1907.

To the Deputy Minister of Marine and Fisheries,
Ottawa,

SIR,—I have the honour to submit a report of the working of the Steamboat Inspection Service for nine months of fiscal year ending March 31, 1907.

It defines the general work of the service during the time stated, giving the names and number of steamboats inspected and certificated in the several divisions, and their gross tonnage, with the amount of dues collected from steamers employed in the carriage of passengers between Canadian ports but registered elsewhere than in Canada, together with the fees received for engineer examinations, the names of the candidates, and their grade of certificate.

The Steamboat Inspectors of the port of Montreal, in addition to the steamboats inspected, have also inspected the ships' tackle and hoisting gear of 310 vessels which is used for the purpose of loading and unloading them.

NUMBER of steam vessels reported as known by the Inspectors of Steamboats in the Dominion for the nine months of fiscal year ending March 31, 1907.

Division.	Number of Dominion registered steamers.	Gross tonnage of Dominion registered steamers.	Number of steamers inspected but not registered in the Dominion.	Gross tonnage of steamers inspected but not registered in the Dominion.
Toronto.	328	64,425	28	24,053
Collingwood.	215	56,294	4	2,224
Kingston.	158	26,371	11	1,693
Montreal.	179	22,503	7	11,246
Sorel.	80	31,301		
Quebec.	114	19,859	1	1,170
Nova Scotia.	148	29,458	14	23,931
New Brunswick and Prince Edward Island.	170	22,029	7	9,812
British Columbia and Yukon Territory.	215	49,070	12	12,815
Manitoba and Northwest Territories.	160	11,834		
	1,767	333,144	83	86,944

7-8 EDWARD VII., A. 1908

NUMBER of Dominion registered steam vessels inspected and their gross tonnage, with amount of fees collected on account of steamboat inspection during the nine months of fiscal year ending March 31, 1907.

Division.	Number of Dominion registered steamers inspected.	Gross tonnage of Dominion registered steamers inspected.	Amount of fees collected on account of steamboat inspection.
			\$ cts.
Toronto	160	21,204	138 40
Ollingwood	81	8,417	
Kingston	90	3,885	
Montreal	43	4,245	
Sorel	7	1,654	
Quebec	25	2,955	130 00
Nova Scotia	66	9,009	1,070 80
New Brunswick and Prince Edward Island	76	7,017	
British Columbia and Yukon Territory	31	2,432	504 96
Manitoba and Northwest Territories	21	2,432	
Engineers' certificates			1,000 00
Total	610	63,350	2,844 16

BOARD MEETINGS.

August 22, 1906.—A meeting of the Board of Steamboat Inspection was convened at Victoria, B.C., for the examination of candidates for the position of Hull Inspector for that province, the result of which Mr. John C. Kinghorn demonstrated his fitness for the position and was appointed thereto by Order in Council of November 22, 1906.

CASUALTIES.

The following are the casualties reported from the several divisions as having occurred for the nine months ending March 31, 1907.

TORONTO DIVISION.

September 18, 1906.—The steamer *Gordon Jerry* of Windsor was totally destroyed by fire at Ward's Island, Toronto Harbour; cause of fire unknown.

November 22, 1906.—During a severe gale in the early morning the steamer *Resolute* of Desoronto foundered. The steamer had been lying to anchor under Gibraltar Point, outside the western entrance to Toronto Harbour, waiting for the wind to moderate to enable her to enter the harbour. Suddenly the wind shifted and the steamer began to sink. She was abandoned and six of the crew reached shore in safety, while six were drowned.

On Thursday night, December 4, 1906, the steamer *Monarch* of Sarnia, en route from Fort William to Sarnia, went ashore on Isle Royal, Lake Superior, during a snow storm and became a total loss. One of the crew was drowned.

On January 5, 1907, the tug *Skylark* of Toronto, while on her way to Port Stanley from Port Colborne, in a dense fog, ran ashore near Port Maitland, and became a total loss. The boiler and machinery have been removed.

On December 6, 1906, the steamer *Golspie* of Hamilton, when on a voyage from Fort William to Point Edward with a cargo of grain, went ashore during the night, at Brule Bay, Lake Superior. The vessel was abandoned and became a total loss. The accident occurred during a snow storm and at some distance from any settlement; and owing to the inclemency of the weather and exposure several of the crew were severely frost-bitten before assistance was received, from the results of which one of them died at the hospital at Sault Ste. Marie, Ont.

SESSIONAL PAPER No. 23a

COLLINGWOOD DIVISION.

September 2, 1906.—Steamer *Blair* of Windsor struck a rock at Little Detour passage, North Channel, and sank in deep water; but the officers and crew escaped in the yawl boat. She has since been raised and repaired.

November 22, 1906.—Steamer *J. H. Jones* of Goderich left Owen Sound during a heavy gale bound for Lion's Head and was last seen off Cape Croker at the approach of darkness that evening. It is supposed the steamer foundered off Cape Croker, although the two lifeboats and other wreckage came ashore at Christian Island. The crew and passengers, amounting to about twenty-two persons, were lost.

KINGSTON DIVISION.

On November 7, 1906, the steamer *Strathmore* of Cobourg, en voyage from Fort William to Kingston, went ashore on Michipicoten Island during a snow storm and became a total loss. There was no loss of life.

Steamer *Erinsdale* of Whitby, on the morning of August 9, 1906, was destroyed by fire while lying at the wharf at Newcastle, becoming a total loss. No loss of life was reported.

On July 22, 1906, steamer *Maple Leaf* of Hamilton, while lying at the dock, took fire and became a total loss. There being no person on board at the time, cause of fire is unknown.

Steamer *Beaver* of Port Hope, while in winter quarters at Lakefield, was completely destroyed by fire, cause of fire unknown.

MONTREAL DIVISION.

On September 27, 1906, the steamer *Maude* of Montreal, collided with the steamer *Ottawan* of Ottawa, at midnight, on the Ottawa River, near Hudson, and sank in about twenty feet of water. The *Ottawan* sustained very little damage, and stood by to take the passengers and crew on board; two of the crew and one passenger were drowned. Part of the machinery was taken out of the *Maude* and the hull was hauled out of the channel and abandoned.

On October 8, 1906, the steam barge *A. M. Marshall* collided with dredge No. 1, in the harbour of Montreal. She was proceeding down stream and tried to pass on the south side, but failed to do so, striking the dredge and sinking her in about thirty feet of water. Part of the machinery was removed and the hull drifted down to Hochelaga. The steam barge received very little damage.

QUEBEE DIVISION.

On July 6, 1906, the passenger steamer *Gaspesien*, of Quebec, collided with a floating elevator in the harbour of Montreal, making a hole in her port side under the water line. She was beached to prevent her from sinking, and subsequently floated and placed in dock and repaired.

On September 6, 1906, the steamer *Heward McMaugh*, of St. Catharines ran ashore on the Wye Rock at St. Thomas and sank. She is a total loss, with no fatalities.

On October 12, 1906, the steamer *Polino* ran ashore at Goose Island, when she was subsequently floated, brought to Quebec and repaired.

On November 15, 1906, the steamer *Sprag*, of Quebec, ran ashore at Madame Island. She was floated on the 21st and docked at Quebec for repairs.

NOVA SCOTIA DIVISION.

December 2, 1906. The steamer *Maggie* of Lunenburg, while lying at her wharf at Canso, N.S., caught fire, supposed to be from hot fire tools, and was totally destroyed, no lives lost.

7-8 EDWARD VII., A. 1908

December 22, 1906, steamer *Strathcona* of Halifax, when entering Port Dufferin, N.S., was discovered on fire over the boiler and in a few minutes was totally destroyed, no loss of life occurred.

On January 6, 1907, steamer *Yankee* of Yarmouth, while entering Tusket Harbour, N.S., struck a rock and became a total loss with no loss of life.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

August 7, 1906, the steamer *Admiral*, of St. John. N.B., while proceeding out of the Narrows, during a thick fog, struck the rocks and damaged her bow, causing her to sink. She was subsequently raised and repaired.

September 1, 1906, steamer *Neptune* of St. John, while lying at her wharf, caught fire at the midship portion of deck house, destroying wheel house and engine room. Cause of fire is unknown, and all damage was made good.

October 7, 1906, steamer *Elfin* of Charlottetown, Prince Edward Island, while lying at her wharf at Charlottetown P. E. I., caught fire, was very badly damaged and condemned.

MANITOBA AND NORTHWEST TERRITORIES DIVISION.

On August 22, 1906, the steamer *Harvey Neelon* of St. Catharines, while on a voyage from Port Arthur to Fort William, caught fire around the boiler and became a total loss. Cause of fire is unknown, no loss of life.

On August 26, 1906, the steamer *Princess* of Winnipeg, 405 gross tons, while en route from Poplar Point, Lake Winnipeg, to Selkirk, encountered a heavy storm and sprang a leak whereby she sank, becoming a total loss. The captain and five others were drowned.

BRITISH COLUMBIA DIVISION.

On July 21, 1906, steamer *Princess Victoria*, on a voyage from Vancouver to Victoria, when near Brockton Point, Vancouver Narrows, came into collision with steamer *Chehalis*, whereby the latter sank and became a total loss. Nine persons lost their lives.

On October 16, 1906, steamer *Princess Victoria*, on a voyage from Vancouver to Victoria, struck and remained fast on Lewis Rock abreast of Oak Bay, Victoria, was pulled off next day with rising tide, and hauled out on Marine Railway, damaged about 100 feet of keel and garboard, and forty frames which were renewed and repaired.

On September 26, 1906, the steamer *Columbian*, when bound down the Yukon River from Whitehorse to Dawson, with a mixed cargo including two tons of blasting powder, which by some means exploded setting the boat on fire. She was promptly beached to save the crew, five of whom subsequently died from the burns received.

I am, sir,

Your obedient servant

E. ADAMS,

Chairman of Board of Steamboat Inspection.

SESSIONAL PAPER No. 23a

Steam Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO, TORONTO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907		
Cayuga		Not issued..	2,196	Twin screw, Lake Ontario
Myrtle	40	July 9	9	Screw, pass., Pt. Abino & Crystal Beach.
Monarch (dredge)		Not issued..	474	Not running
Acacia	200	July 11	107	Screw, pass., Burlington Bay.
D. W. Crow		Not issued..	19	Screw, tug, Chatham and vicinity.
Maude		Not issued..	9	Screw, tug, Wallaceburg and vicinity.
Comfort	40	July 18	14	Screw, pass Detroit River.
Marion	40	" 18	9	Screw, pass Sarnia and vicinity.
International		" 19	851	Twin screw, freight, Sarnia & Pt. Huron.
J. M. Diver		" 19	48	Screw, tug, lakes and rivers.
Sarnia		" 19	85	Screw, tug, lakes and rivers.
Argyle		" 19	41	Screw, tug, lakes and rivers.
Ariadne		" 20	38	Screw, fish tug, Lake Huron.
Nettie B.		" 23	12	Screw, fish tug, Lake Erie.
Gordon Brown		" 23	25	Screw, fish tug, Lake Erie.
Charles F.		" 23	8	Screw, fish tug, Lake Erie.
Bertha L. Cockell		Not issued..	24	Screw, fish tug, Lake Erie.
Governor Morton		July 24	12	Screw, fish tug, Lake Erie.
Maxie		" 24	16	Screw, fish tug, Lake Erie.
Dauntless		Not issued..	23	Screw, fish tug, Lake Erie.
Enterprise		July 24	18	Screw, fish tug, Lake Erie.
Star		" 25	13	Screw, fish tug, Lake Erie.
Jean		Not issued..	21	Screw, fish tug, Lake Erie.
Winner		July 26	48	Screw, fish tug, Lake Erie.
James Playfair		" 26	26	Screw, fish tug, Lake Erie.
May B.		Not issued..	10	Screw, fish tug, Lake Erie.
Tranquillo		July 27		Screw, yacht, Lake Ontario.
City of New York		Not issued..	292	Screw, freight, lakes and rivers.
Ionic		Sept. 5	1,708	Twin screw, freight, Windsor and Duluth.
Norseman		" 5	620	Screw, freight, lakes and rivers.
Lansdowne	200	" 17	1,571	Paddle, pass Windsor and Detroit.
Great Western	191	" 17	1,080	Paddle, pass Windsor and Detroit.
Lurline		" 19	66	Screw, yacht, Windsor and vicinity.
Ranger		" 20	8	Screw, tug, Windsor and vicinity.
Huron	191	" 20	1,052	Twin screw, pass., Windsor and Detroit.
Jas. Reid		" 21	181	Screw, tug, lakes and rivers.
Ottawa		" 21	617	Screw, tug, lakes and rivers.
Winslow		" 22	351	Screw, tug, lakes and rivers.
E. Hall N. 1 (dredge)		Not issued..	301	Dredge, Sarnia Bay.
Salvor		Sept. 22	126	Screw, tug, lakes and rivers.
		1908		
Macassa	712	Mar. 25	529	Twin screw, pass., Toronto and Hamilton.
Ontario	500	" 27	1,615	Paddle, pass., Windsor and Detroit.
Total			14,303	

JNO. DODDS,
Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM VESSELS Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1907.		\$ cts.	
Scottish Hero.....		July 7..	2,202		Screw, frt., Duluth and Pt. Colborne.
Brittania.....	2,700	" 3..	792		Screw, passenger, Detroit River.
Adieu.....	25	" 3..	5		Screw, passenger, Detroit River.
Nellie H.....		" 19..	25		Screw, ferry, Pt. Huron and vicinity.
City of Grand Rapids..		Not issued	399		Screw, Lake Erie.
Helen.....	60	June 7..	32		Screw, passenger, Detroit River.
Adieu.....	25	Aug. 25..	5		Screw, passenger, Detroit River.
Victoria.....		Sept. 18..	192		Screw, ferry, Detroit and Windsor.
Ariel.....		" 21..	202		Screw, ferry, Detroit and Walkerville.
Omar D. Conger		" 29..	196		Screw, ferry, Sarnia and Port Huron.
Pere Marquette.....	14	Nov. 1..	2,531		(4) screws, ferry, Windsor and Detroit.
Detroit.....		Oct. 15..	2,089		(4) screws, ferry, Windsor and Detroit.
Michigan Central.....		Sept. 10..	1,522		Paddle, ferry, Windsor and Detroit.
Transfer.....		" 4..	1,511		Paddle, ferry, Windsor and Detroit.
Transport.....		Aug. 3..	1,595		Paddle, ferry, Windsor and Detroit.
Fuller.....		" 25..	13		Screw, ferry, St. Clair and Courtright.
Welcome.....		Sept. 21..	213		Screw, ferry, St. Clair and Courtright.
Niagara.....		Nov. 24..	214		Screw, ferry, Buffalo and Ft. Erie.
		1908.			
Promise.....	1,200	Mar. 26..	473		Screw, passenger, Detroit River.
Excelsior.....		Apr. 18..	229		Screw, ferry, Windsor and Detroit.
Pleasure.....	1,500	May 14..	490		Screw, passenger, Detroit River.
Garland.....		Mar. 28..	248		Screw, ferry, Windsor and Detroit.
Owana.....	1,200	Apr. 3..	747		Paddle, passenger, Detroit River.
City of Toledo.....	1,400	" 30..	1,004		Paddle, passenger, Detroit River.
H. M. Pellatt.....		Mar. 26..	1,592		Screw, freight, lakes and rivers.
Michigan.....	500	" 28..	1,730	138 40	Paddle, pass., Windsor and Detroit.
Total.....			20,251	138 40	

JOHN DODDS,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM VESSELS Inspected for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO, TORONTO DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Cruiser II.....		July 4..	86	Screw, yacht, Parry Sound and Penetang.
Lorna Doone.....	35	" 4..	26	Screw, passenger, Pt. aux Baril and Moose Point.
Pearl.....	23	" 4..	6	Screw, passenger, Point aux Baril and Penetang.
Dorothe.....		" 4..	8	Screw, yacht, Parry Sound Harbour.
Mazeppa.....	200	" 4..	146	Screw, passenger, Point aux Baril and Penetang.
Edna.....		" 5..	55	Screw, tug, Parry Sound and Penetang.
Emma.....	250	" 5..	140	Screw, passenger, Point aux Baril and Penetang.
Ophir.....		" 5..	11	Screw, yacht, Parry Sound Harbour.
Helcro.....		" 5..	8	Screw, yacht, Parry Sound Harbour.
Lady of the Lake.....		" 6..	47	Screw, freight, Thornberry and Parry Sound.
Bertha.....		" 6..		Screw, tug, Parry Sound Harbour.
J. D. Hamill.....		" 6..	111	Screw, tug, Parry Sound and Penetang.
Ina.....		" 6..	27	Screw, tug, Parry Sound and Penetang.
Minnie C.....		" 6..	7	Screw, yacht, Moon River.
Roy.....			6	Screw, yacht, Sans Soucie River.
Eleanor.....	150	July 7..	84	Screw, passenger, Point aux Baril and Penetang.
Geraldine.....		" 7..	65	Screw, tug, Point aux Baril and Penetang.
Frank L.....		" 9..	46	Screw, fish tug, Georgian Bay.
Primrose.....		" 9..	23	Screw, fish tug, Georgian Bay.
Jolly 4.....		" 9..	10	Screw, tug, Point aux Baril and vicinity.
Julian V. O'Brien.....		" 11..	59	Screw, tug, Byng Inlet and Georgian Bay.
Penetang.....		" 11..	102	Screw, tug, Byng Inlet and Georgian Bay.
Maggie McLean.....		" 12..	37	Screw, tug, French and Pickerel Rivers.
Imperial.....			36	Screw, tug, French and Pickerel Rivers.
Sweepstakes.....		July 12..	28	Paddle, tug, French and Pickerel Rivers.
S. R. Norcross.....		" 13..	20	Screw, tug, French and Pickerel Rivers.
Torpedo.....			8	Screw, tug, French and Pickerel Rivers.
Hunter.....		No regis-try		Paddle, tug, French and Pickerel Rivers.
Coponaning.....		July 14..	18	Screw, tug, French River.
Evelyn.....		" 14..	85	Screw, tug, French River.
Caroline.....		" 14..	12	Screw, tug, French River.
Celt.....		" 16..	6	Screw, yacht, Copperhead and Georgian Bay.
Mary R.....		" 24..	44	Screw, tug, Welland Canal.
Ella M. (dredge).....		" 25..	420	Welland Canal.
Hector.....		" 25..	64	Screw, tug, Welland Canal.
Isobel (dredge).....		" 25..	507	Welland Canal.
Escort.....		" 25..	40	Screw, tug, Welland Canal.
Meteor.....		" 25..	47	Screw, tug, Welland Canal.
A. D. Cross.....		" 26..	47	Screw, tug, Welland Canal.
T. F. Battle.....		" 26..	29	Screw, tug, Welland Canal.
J. B. Hammill (dredge).....			169	Welland Canal.
Chief (dredge).....		July 26..	325	Welland Canal.
Brant.....		" 26..	49	Screw, tug, Welland Canal.
Golden City.....		" 27..	35	Screw, tug, Welland Canal.
Alert.....		" 28..	47	Screw, tug, Welland Canal.
Tyra.....		Aug. 1..	34	Screw, yacht, lakes and rivers.
City Dredge No. 2, (dredge).....		" 2..	279	Toronto Harbour.
Abino.....	40	" 3..	9	Screw, passenger, Niagara-on-the-Lake.
National.....		" 4..	18	Screw, tug, Toronto Bay.
Agnes.....	20	" 8..	15	Screw, passenger, Bellewart and Roaches Point.
Soucie.....		" 9..	14	Screw, yacht, Orillia Bay.
Simcoe, (dredge).....		" 10..	214	Trent Valley Canal.
Lake.....		" 10..	13	Screw, tug, Trent Valley Canal.
Maggie R. Mitchell.....		" 13..	40	Screw, tug, lake and river.
Namiwa.....		" 16..	12	Screw, yacht, Muskoka Lakes.
Osso.....		" 16..	6	Screw, yacht, Muskoka Lakes.
Helena.....		" 16..	10	Screw, yacht, Muskoka Lakes.
Sunbeam (gasoline).....		" 16..	4	Screw, Muskoka Lakes.

7-8 EDWARD VII., A. 1908

STEAM VESSELS Inspected for the nine months of fiscal year ended March 31, 1907—*Con.*WESTERN ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessels and where Employed.
1907.				
Mildred		Aug. 16..	39	Screw, yacht, Muskoka Lakes.
Thelma (gasoline)		" 16..	3	Screw, Muskoka Lakes.
Jennie Wilson		" 16..	7	Screw, tug, Muskoka Lakes.
Mattie (gasoline)		" 16..	2	Screw, Muskoka Lakes.
Helen (gasoline)		Not issued	3	Screw, Muskoka Lakes.
Helena (gasoline)		"	3	Screw, Muskoka Lakes.
Lena (gasoline)		"	3	Screw, Muskoka Lakes.
Ontario		Aug. 17..	11	Screw, tug, Muskoka Lakes.
Wawa		Not issued	9	Screw, yacht, Muskoka Lakes.
Rambler		Aug. 17..	39	Screw, yacht, Muskoka Lakes.
Manolia		" 17..	6	Screw, yacht, Muskoka Lakes.
Sharon		" 18..	14	Screw, tug, Muskoka Lakes.
Hepburn		" 18..	15	Screw, yacht, Muskoka Lakes.
Hiawatha		Not issued	27	Screw, tug, Muskoka Lakes.
Lady of the Lake		Aug. 18..	7	Screw, yacht, Muskoka Lakes.
Iagara		" 18..	7	Screw, yacht, Muskoka Lakes.
Wanda II		" 18..	51	Screw, yacht, Muskoka Lakes.
Ina		" 18..	14	Screw, yacht, Muskoka Lakes.
Gravenhurst		" 18..	29	Screw, tug, Muskoka Lakes.
Edith Ann		" 18..	11	Screw, yacht, Muskoka Lakes.
Sky Pilot		" 18..	5	Screw, yacht, Muskoka Lakes.
Bertha May		" 20..	20	Screw, tug, Muskoka Lakes.
Constanee		" 20..	52	Screw, supply boat, Muskoka Lakes.
Izaak Walton			No regis-try.....	Screw, yacht, Muskoka Lakes.
Shamrock No. 1		Not issued	6	Screw, Muskoka Lakes.
Rulo		Aug. 20..	9	Screw, yacht, Muskoka Lakes.
Oriska		" 20..	6	Screw, yacht, Muskoka Lakes.
Mineta	35	" 20..	11	Screw, passenger, Muskoka Lakes.
Ethel May		" 20..	13	Screw, tug, Muskoka Lakes.
Willodee No. 1		Not issued	14	Screw, yacht, Muskoka Lakes.
Sista		"	3	Screw, tug, Muskoka Lakes.
Allena May		Aug. 20..	16	Screw, tug, Muskoka Lakes.
Morinus	25	" 21..	10	Screw, passenger, Muskoka Lakes.
Lilano		" 21..	14	Screw, yacht, Muskoka Lakes.
Algoma		" 21..	5	Screw, yacht, Muskoka Lakes.
Fidelia		" 21..	9	Screw, yacht, Muskoka Lakes.
Queen of the Isles		" 21..	40	Screw, yacht, Muskoka Lakes.
Linden		Not issued	4	Screw, tug, Muskoka Lakes.
Bella Vista		Aug. 22..	8	Screw, yacht, Muskoka Lakes.
Southwood		" 22..	19	Screw, tug, Muskoka Lakes.
Phoebe		" 23..	11	Screw, yacht, Muskoka Lakes.
Iona			No regis-try.....	Screw, yacht, Muskoka Lakes.
Rosseau		Aug. 24..	53	Screw, tug, Muskoka Lakes.
Algonquin		Not issued	305	Screw, Huntsville Lakes.
Florence Main	175	Aug. 25..	79	Screw, passenger, Lake of Bays.
Wahwakesh		" 28..	10	Paddle, tug, Deer Lake.
Nymca		Not issued	51	Screw, tug, Muskoka Lakes.
Rob Roy		"	5	Screw, Severn River.
Islay	225	Aug. 31..	175	Screw, passenger, Orillia and Lake Simcoe.
S. V. Marchmont		Sept. 24..	89	Screw, freight, Toronto and Dead Men's Bay
Excelsior (dredge)			No regis-try.....	Midland.
Charlie E. Armstrong		Sept. 26..	49	Screw, tug, Welland Canal.
Eupheimia		" 26..	29	Screw, tug, Welland Canal.
Tecumseh		Oct. 4..	840	Screw, freight, Chicago and Montreal.
Suction & Clam (dredge)			No regis-try.....	Dredge, Lake Simcoe.

SESSIONAL PAPER No. 23a

STEAM VESSELS Inspected for the nine months of fiscal year ended March 31, 1907—*Con.*WESTERN ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1908.		
Augusta.....	.....	Oct. 15..	57	Screw, tug, Welland Canal.
Com. Jarvis (dredge).....	.....	Nov. 5..	287	Twin screw, Hamilton and Whitby.
Roy Mac.....	....	" 15..	23	Screw, tug, Toronto Bay.
Lakeside.....	524	Mar. 21..	348	Screw, passenger, Toronto and St. Catharines.
Hardy (dredge).....	.....	" 30..	94	Hamilton Bay.
Total.....	.....	.....	6,901	

J. B. STEWART,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM VESSELS Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1908.		
Strathcona.....	.....	April 4.	1,881	Screw, freight, lakes and rivers.
Turret Crown.....	Not issued..	.....	1,827	" " " "
Maid of the Mist....	.....	July 2...	99	Screw, ferry, Niagara River.
Total.....	.....	.....	3,807	

J. B. STEWART,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM VESSELS not Inspected for the fiscal year ended March 31, 1907.

WEST ONTARIO, TORONTO DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Bickerdike	1,515	864	Screw, freight.
Huronie	3,330	2,111	Screw, passenger.
Lake Michigan	573	360	Screw, freight.
Arabian	1,073	770	Screw, freight.
Juno	288	196	Screw, freight.
D. R. Van Allen	318	216	Screw, freight.
Turbinia	1,064	603	(3) Screws, passenger.
Hope	170	116	Screw, passenger.
Pappoose	57	39	Screw, passenger.
Premier	337	219	Screw, passenger.
Willie Scagel	22	15	Screw, tug.
City of Chatham	341	232	Screw, passenger.
Modjeska	678	401	Twin screw, passenger.
Kingston	2,925	1,909	Paddle, passenger.
Toronto	2,779	1,652	Paddle, passenger.
Hiawatha	163	111	Screw, passenger.
City of Dresden	194	124	Screw, passenger.
Dundurn	1,120	600	Screw, passenger.
Elsie	48	33	Screw, passenger.
Gilbert	41	28	Screw, tug.
Haddington	1,603	1,010	Screw, freight.
Iroquois	2,359	1,452	Screw, freight.
Garden City	637	401	Paddle, passenger.
Persia	757	500	Screw, passenger.
Cararact	1,198	742	Screw, freight.
Belleville	1,153	675	Paddle, passenger.
Daniel Lamb	253	18	Dredge.
Ottawa	2,431	1,344	Screw, freight.
Cuba	931	599	Screw, freight.
Sequin	1,141	771	Screw, freight.
Chicora	931	540	Paddle, passenger.
Corona	1,274	449	Paddle, passenger.
Chippewa	1,504	764	Paddle, passenger.
Ongiara	98	64	Screw, passenger.
Oriole	75	48	Screw, passenger.
Muskoka	197	134	Screw, passenger.
Kenozha	225	124	Screw, passenger.
Islander	165	78	Screw, passenger.
Ahmie	77	52	Screw, passenger.
Wenonah	93	56	Screw, freight.
Kathleen	110	72	Screw, passenger ferry.
Clark Bros	92	38	Screw, passenger ferry.
Shamrock	154	111	Paddle, passenger ferry.
Blue Bell	752	451	Paddle, passenger ferry.
John Hanlan	37	25	Screw, passenger ferry.
Primrose	189	119	Paddle, passenger ferry.
Mayflower	189	119	Paddle, passenger ferry.
Ada Alice	60	41	Screw, passenger ferry.
Cleopatra	104	71	Screw, pleasure yacht.
Island Queen	129	88	Screw, passenger ferry.
Nellie Bly	13	7	Screw, tug.
Luella	38	26	Screw, passenger ferry.
Maid of the Mist	62	33	Screw, passenger ferry.
St. George	21	14	Screw, tug.
Hiawatha	46	31	Screw, yacht.
City of Bala	74	47	Screw, tug.
Conet	20	14	Screw, tug.
Onagonah	19	13	Screw, tug.
Queen of the Isles	40	27	Screw, tug.
Jennie Wilson	7	5	Screw, tug.
Constance	52	35	Screw, supply boat.
Gracie M.	61	27	Screw, tug.
Nipissing	275	207	Paddle, passenger.
Medora	377	256	Screw, passenger.

7-8 EDWARD VII., A. 1908

STEAM VESSELS not Inspected for the fiscal year ended March 31, 1907—*Continued.*WEST ONTARIO, TORONTO DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Nymoca	51	35	Screw, passenger.
Charl M.	50	30	Screw, passenger.
Gravenhurst	29	20	Screw, tug.
Anchora	6	3	Screw, tug.
Mink	56	38	Screw, supply boat.
Nymph	84	57	Screw, passenger.
Armour	191	115	Screw, passenger.
Glenada	65	44	Screw, passenger.
Wanita	44	30	Screw, passenger.
Theresa	26	18	Screw, tug.
Gem	27	18	Screw, passenger.
Algonquin	305	200	Screw, passenger.
Empress Victoria	106	72	Screw, passenger.
Florence Main	79	52	Screw, passenger.
Phoneix	29	20	Screw, tug.
Sorona	32	22	Screw, pleasure yacht.
Joe	51	39	Screw, passenger.
Equal Rights	6	4	Screw, tug.
Dortha	51	35	Screw, passenger.
Mabel M.	7	5	Screw, tug.
Champion	42	28	Screw, passenger.
Agnes	15	10	Screw, passenger.
Ella	15	10	Screw, passenger.
Islay	175	119	Screw, passenger.
Geneva	92	58	Screw, passenger.
Lake	13	5	Screw, tug.
Simcoe	214	136	Dredge.
Lorna Doone	5	4	Screw, pleasure yacht.
Lakefield	33	22	Screw, passenger.
Two Friends	23	16	Screw, fishing boat.
W. M. German	28	19	Screw, fishing boat.
Edna K.	22	15	Screw, fishing boat.
Angler	20	14	Screw, fishing tug.
Belle	15	7	Screw, fishing tug.
Saida	14	10	Screw, fishing tug.
Eleanor	26	18	Screw, fishing tug.
Wm. Wilson	15	10	Screw, fishing tug.
Lena	14	8	Screw, fishing tug.
City of Ladysmith	35	14	Screw, fishing tug.
You and I	25	17	Screw, fishing tug.
Charlie Jones	16	12	Screw, fishing tug.
W. S. Oldfield	15	10	Screw, tug.
Pilot	70	47	Screw, tug.
Allena May	16	11	Screw, tug.
Priscilla	20	14	Screw, yacht.
Naiad	29	20	Screw, yacht.
Niska	9	6	Screw, yacht.
Scuider	5	3	Screw, yacht.
Wanda	6	3	Screw, yacht.
Uncle Tom	8	3	Screw, fishing tug.
W. F. McRae	46	31	Screw, tug.
D. McLeod	36	25	Screw, fishing tug.
John Logie	37	25	Screw, fishing tug.
J. B. McLeod	25	17	Screw, fishing tug.
A. Chambers	23	15	Screw, fishing tug.
R. H. Dobson	44	30	Screw, fishing tug.
Onward	22	15	Screw, fishing tug.
Jno. R. Arnoldi	116	68	Dredge.
Frank G. McAulay	43	29	Screw, tug.
Wenonah	93	56	Screw, tug.
St. George	21	14	Screw, tug.

SESSIONAL PAPER No. 23a

STEAM VESSELS not Inspected for the fiscal year ended March 31, 1907.—*Continued.*WEST ONTARIO, TORONTO DIVISION—*Concluded.*BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Oriana	68	46	Screw, yacht, not running.
Willowdee No. 2.....	25	17	
Secret.....	5	3	
Amanda.....	6	4	
Flyer.....	4	3	
Lady Franklin.....	5	4	
Annie C. Hill.....	14	9	
Devenish	3	2	
Wapinao.....	5	3	
Kestrel.....	7	5	
Delila.....	4	3	Screw, tug, not running.
W. H. Stone.....	35	17	
Ella Taylor.....	34	23	
Sarah E. Day.....	5	4	
Tecumseh.....	10	6	
Eagle.....	12	9	
Edward Blake	22	15	
Urania.....	898	444	
Holland & Graves No. 4. .	30	19	
City of Mt. Clemens.....	102	69	Screw, freight, no application.
Alaska	348	173	
Lillie Smith	275	187	
J. E. Mills	149	64	
R. C. Brittain.....	213	149	
Arlington.....	23	16	
Energy.....	116	70	
Thames.....	not register ed.		
Ottawa.....	220	130	
A. M. Petrie.....	20	13	Screw, fishing tug, no application.
Thistle.....	36	25	
Dalton McCarthy.....	54	17	
Michael Davitt.....	28	19	
Vick.....	13	9	
B. W. Aldrich.....	not register ed.		
Home Rule.....	81	45	
Scotia.....	13	9	
Saginaw	357	243	
Louisa.....	13	9	Screw, yacht, no application.
Geo. E. Ashley.....	10	7	
Minette	4	3	
Zara.....	35	24	
Glenora.....	17	10	
Sonntag.....	7	5	
Total.....	43,221	26,181	

JNO. DODDS,

J. B. STEWART,

Steamboat Inspectors.

7-8 EDWARD VII., A. 1908

STEAM VESSELS Inspected for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO, COLLINGWOOD DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Shamrock		Not issued	14	Screw, fish tug, Lake Superior.
A. F. Bowman		July 14..	113	Screw, fish tug, Lake Superior.
Fred A. Hodgson		July 17..	63	Screw, fish tug, Georgian Bay.
Canada	L 300			
	C 450	July 18..	312	Screw, pass., Georgian Bay.
J. H. Jones		Not issued	152	Screw, pass., Georgian Bay and Lake Huron.
United Lumberman		July 25..	399	Screw, freight, all lakes and rivers.
Puffing Billy	10	July 11..	3	Screw, pass., Penetang and Moose Point.
Siesta	26	July 11..	5	Screw, pass., Penetang and Moose Point.
Emily May		Not issued	30	Screw, fish tug, Georgian Bay.
Clipper		Not issued	46	Screw, fish tug, Georgian Bay.
Pete Gorman		Not issued	64	Screw, tug, Soo and vicinity.
Harold B. Phillips		Not issued	66	Screw, tug, Soo and vicinity.
Andrew J. Smith	30	Aug. 11..	287	Screw, pass., Soo and Port Arthur.
Lulu Eddy		Aug. 13..	29	Screw, tug, North Channel.
A. V. Crawford		Aug. 17..	51	Screw, tug, Georgian Bay.
Kingsford (dredge)			Not yet registered.	Dredge, Collingwood.
C. W. Chamberlain		Aug. 21..	385	Screw, freight, lakes and rivers.
Wahnapiatae		Aug. 21..	153	Screw, tug, lakes and rivers.
Venetta		Aug. 22..	31	Screw, yacht, Georgian Bay.
Heather Belle		Aug. 23..	25	Screw, fish tug, Georgian Bay.
Clucas		Aug. 25..	28	Screw, fish tug, Georgian Bay and Lake Huron.
Junco		Aug. 25..	28	Screw, fish tug, Georgian Bay and Lake Huron.
Wm. H. Siebold		Aug. 25..	22	Screw, fish tug, Georgian Bay and Lake Huron.
The Belle		Aug. 25..	31	Screw, fish tug, Georgian Bay and Lake Huron.
Molly S		Aug. 25..	45	Screw, fish tug, Georgian Bay and Lake Huron.
Rambler		Aug. 25..	6	Screw, fish tug, Georgian Bay and Lake Huron.
David Marwick		Not issued	30	Screw, tug, Georgian Bay and Lake Huron.
Elite		Aug. 27..	22	Screw, fish tug, Lake Huron.
Sea King		Aug. 27..	26	Screw, fish tug, Lake Huron.
Lizzie May		Not issued	18	Screw, tug, Lake Huron.
Dolphin		Aug. 27..	24	Screw, tug, Lake Huron.
Minnie A. Clark		Aug. 28..	36	Screw, fish tug, Lake Huron.
Sea Queen		Aug. 28..	18	Screw, fish tug, Lake Huron.
Osprey		Aug. 28..	42	Screw, fish tug, Lake Huron.
Gypsy		Not issued	11	Screw, pass., Georgian Bay.
Camilla		Sept. 18..	54	Screw, fish tug, North Channel.
Cynthia		Sept. 18..	35	Screw, fish tug, Georgian Bay.
Helen S		Not issued	86	Screw, pass., Georgian Bay.
Geo. W. Cuyler	20	Sept. 20..	56	Screw, pass., Soo and French River.
Fred Davidson	40	Sept. 20..	43	Screw, pass., Soo and Killarney.
Hazard		Sept. 20..	34	Screw, tug, North Channel.
Togo			Not yet registered.	Screw, tug, North Channel.
Agnes Smith	40	Sept. 20..	57	Screw, pass., Soo and Killarney.
J. G. Gidley	40	Sept. 20..	57	Screw, pass., Soo and Killarney.
Glyn		Sept. 21..	20	Screw, tug, North Channel.
Iroquois	250	Sept. 21..	240	Screw, pass., Soo and Collingwood.
Scotch Thistle	27	Sept. 21..	17	Screw, pass., Blind River and Killarney.
Everard		Sept. 24..	25	Screw, fish tug, North Channel.
Swan		Sept. 24..	14	Screw, fish tug, North Channel.
Edna Ivan	40	Sept. 25..	54	Screw, pass., Thessalon and Little Current.

SESSIONAL PAPER No. 23a

STEAM VESSELS Inspected for the nine months of fiscal year ended March 31, 1907—*Con.*WEST ONTARIO, COLLINGWOOD DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
M. G. McDonald,		Not issued	29	Screw, fish tug, Lake Huron.
Welcome,		"	21	Screw, tug, North Channel.
John McKay,		Sept. 26 . .	34	Screw, fish tug, Lake Huron.
Victoria K.		" 27 . .	41	Screw, fish tug, Lake Huron.
Eu-Jennie,		Oct. 22 . .	22	Screw, fish tug, North Channel.
Win. H. Seymour,	16	" 22 . .	85	Screw, pass., Blind River and Killarney.
Ahteek,	20	" 22 . .	29	Screw, pass., Soo and Killarney.
Fanny Arnold,	30	" 22 . .	73	Screw, pass., Soo and Killarney.
Stella,		" 23 . .	16	Screw, tug, North Channel.
Clipper,		" 23 . .	46	Screw, tug, North Channel.
J. H. McDonald,		" 23 . .	41	Screw, tug, North Channel.
P. S. Heidsordt,		" 23 . .	45	Screw, tug, North Channel.
E. P. Sawyer,		" 24 . .	52	Screw, tug, North Channel.
Annie Moiles,	25	" 24 . .	71	Screw, pass., Soo and Killarney.
Killarney Belle,		Not issued	28	Screw, tug, North Channel.
W. J. Smith,		Oct. 25 . .	26	Screw, tug, Soo and vicinity.
W. A. Rooth,		" 26 . .	52	Screw, tug, Soo and vicinity.
J. L. Beckwith,		Not issued	61	Screw, tug, Soo and vicinity.
Vixen,		Oct. 26 . .	68	Screw, tug, Soo and vicinity.
Iota,		" 27 . .	6	Screw, tug, Soo and vicinity.
Alert,		" 27 . .	9	Screw, tug, Soo and vicinity.
Algoma,	650	" 29 . .	157	Screw, pass., Point Iroquois and Bruce Mines.
N. Dymont,	25	" 30 . .	59	Screw, pass., Soo and Killarney.
Reginald,		Nov. 6 . .	186	Screw, tug, lakes and rivers.
Reliance,		" 7 . .	311	Screw, tug, lakes and rivers.
Metamora,		" 7 . .	239	Screw, tug, lakes and rivers.
Margherita,		" 7 . .	31	Screw, yacht, Midland and vicinity.
C. C. Martin,		Not registered . . .		
Traveller,		Nov. 8 . .	438	Screw, tug, Georgian Bay.
				Screw, tug, lakes and rivers.
1908.				
Glenellah,	9	Mar. 25 . .	2,272	Screw, pass., lakes and rivers.
Total,			8,417	

E. W. McKEAN,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM VESSELS Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO, COLLINGWOOD DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Thomas Friant.....		June 17....	81	Screw, pass., Soo and vicinity.
Fortune.....		July 5....	200	Screw, pass., Soo ferry boat.
International..		" 6....	144	Screw, pass., Soo and vicinity.
		1908.		
Neepawah.....		Mar. 25....	1,799	Screw, freight, lakes and rivers.
Total.....			2,224	

E. W. McKEAN,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM VESSELS not Inspected for the fiscal year ended March 31, 1907.

WEST ONTARIO, COLLINGWOOD DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross	Registered	Remarks.
	Tonnage.	Tonnage.	Why not Inspected and Class of Vessel.
Midland Prince.....	6,636	5,142	Screw, freight, and passenger.
Ethyll Reid.....	36	24	Screw, fishing tug.
Annie M.....	33	22	Screw, fishing tug.
Alice G.....	36	25	Screw, fishing tug.
Saucy Jim.....	93	63	Screw, tug.
Leighton McCarthy.....	36	24	Screw, fishing tug.
Hugh S.....	24	16	Screw, fishing tug.
W. H. Price.....	13	9	Screw, fishing tug.
Donic.....	2,359	1,452	Screw, freight and passenger.
Midland Queen.....	1,993	1,349	Screw, freight and passenger.
Alberta.....	2,282	1,552	Screw, freight and passenger.
Manitoba.....	2,616	1,699	Screw, freight and passenger.
Athabasca.....	2,269	1,545	Screw, freight and passenger.
Rosedale.....	1,507	977	Screw, freight and passenger.
Harrison.....	150	94	Screw, tug.
Thos. Maitland.....	107	73	Screw, tug.
Algonquin.....	1,806	1,172	Screw, freight and passenger.
Telegram.....	198	134	Screw, freight and passenger.
W. D. Matthews.....	3,965	2,450	Screw, freight and passenger.
Arbutus.....	49	34	Screw, tug.
Dredge Frank.....	185	154	Dredge.
Manitou.....	470	297	Screw, freight and passenger.
City of Windsor.....	511	316	Screw, freight and passenger.
Majestic.....	1,578	1,073	Screw, freight and passenger.
City of Midland.....	974	662	Screw, freight and passenger.
Germanic.....	1,014	676	Screw, freight and passenger.
Britannic.....	428	228	Paddle, freight and passenger.
Batchawana.....	1,027	674	Screw, freight.
C. E. Ainsworth.....	76	48	Screw, fishing tug.
Captain Jim.....	58	39	Screw, fishing tug.
W. J. Emerson.....	28	19	Screw, fishing tug.
Jno. J. Noble.....	33	23	Screw, fishing tug.
Gordon Gauthier.....	26	18	Screw, fishing tug.
Shawanaga.....	96	65	Screw, tug.
Kate.....	63	30	Screw, tug.
Commodore.....	40	22	Screw, tug.
Wissahickon.....	1,745	1,108	Screw, freight.
Norfolk.....	32	22	Screw, fishing tug.
B. M. Fraser.....	50	34	Screw, tug.
Onaping.....	256	174	Screw, tug.
Jno. Lee, sr.....	88	60	Screw, passenger.
Caribou.....	597	371	Screw, freight and passenger.
Balize.....	247	168	Screw, tug.
Charlton.....	389	265	Screw, tug.
T. J. Jarmin.....	47	32	Screw, tug.
Jim & Tom.....	33	22	Screw, fishing tug.
General Weitzell.....	32	21	Screw, tug.
C. A. Boone.....	44	30	Screw, tug.
Dredge No. 10.....	not yet registered.		Dredge.
Dredge No. 15.....	327	174	Dredge.
R. A. McLean.....	30	14	Screw, tug.
John Owen.....	439	230	Screw, tug.
W. L. Davis.....	46	37	Screw, fishing tug.
John Haggart.....	202	117	Screw, passenger.
Aurelia.....	32	19	Screw, tug.
Thos. R. Scott.....	258	241	Screw, freight.
Togo.....	not yet registered.		Dredge.
Mabel Bradshaw.....	500	296	Screw, freight and passenger.
Sandford.....	56	38	Screw, tug.
Esperanza.....	17	11	Screw, tug.
Port Elgin Queen.....	37	25	Screw, tug.
Anna Siemon.....	19	13	Screw, tug.
Crawford.....	50	37	Screw, tug.

7-8 EDWARD VII., A. 1908

STEAM VESSELS not Inspected for the fiscal year ended March 31, 1907.

WEST ONTARIO, COLLINGWOOD DIVISION--*Continued.*BOILERS AND MACHINERY--*Continued.*

Name of Vessel.	Gross	Registered	Remarks.
	Tonnage.	Tonnage.	Why not Inspected and Class of Vessel.
City of Toronto.....	782	492	Paddle, passenger.
Maggie May.....	46	31	Screw, tug.
Philadelphia.....	148	88	Screw, tug.
Ripple.....	5	4	Screw, tug.
Bertha Endress.....	32	24	Screw, tug.
Jessie M.....	14	8	Screw, tug.
Jas. McKeon.....	36	24	Screw, tug.
Gowanda.....	5	4	Screw, passenger.
Despatch.....	33	22	Screw, tug.
Winona.....	231	149	Screw, passenger.
Iona.....	29	20	Screw, fishing tug.
John McRae.....	34	23	Screw, fishing tug.
City of Grand Rapids.....	327	196	Screw, freight and passenger.
Mabel G.....	10	8	Screw, yacht.
Home Rule.....	3	2	Screw, yacht.
Topsy.....	15	10	Screw, passenger.
Penetang.....	100	64	Screw, tug.
Mary L.....	10	6	Screw, passenger.
Beaver.....	29	12	Screw, tug.
Minicog.....	35	24	Screw, yacht.
Mayflower.....	26	17	Screw, passenger.
Royal.....	5	3	Screw, passenger.
Irene.....	45	18	Screw, tug.
Una.....	22	15	Screw, tug.
Rheata.....	27	18	Screw, tug.
City Queen.....	69	42	Screw, passenger.
Maud D.....	81	51	Screw, passenger.
Carlotta.....	96	34	Screw, yacht.
Alma C.....	Not yet	registered.	Screw, yacht.
Voyageur.....	44	30	Screw, tug.
Midland.....	56	38	Screw, tug.
Audrey C.....	87	59	Screw, tug.
Dredge No. 9.....	187	127	Dredge.
Waubashene.....	135	92	Screw, tug.
J. C. Else.....	33	21	Paddle, tug.
Lilly May.....	10	7	Screw, tug.
Dredge Hackett.....	96	59	Dredge.
City of Meaford.....	328	223	Screw, freight and passenger.
Agawa.....	3,759	2,468	Screw, freight and passenger.
Laura Hickler.....	13	9	Screw, tug.
H. H. Bishop.....	Not yet	registered.	Screw, alligator tug.
Lucille.....	50	20	Screw, yacht.
Sweet Mary.....	13	9	Screw, tug.
Evelyn.....	32	22	Screw, fishing tug.
W. E. Gladstone.....	59	40	Screw, tug.
Iris.....	16	9	Screw, yacht.
Bessie M.....	44	30	Screw, fishing tug.
Siesta.....	9	7	Screw, tug.
Vera A.....	11	7	Screw, tug.
Agnes.....	23	16	Screw, tug.
R. J. Morrell.....	40	27	Screw, tug.
Arthur Mac.....	68	35	Screw, tug.
Memodora.....	73	50	Screw, tug.
Waubashene.....	97	47	Screw, tug.
Charlie Jones.....	16	12	Screw, fishing tug.
Lilly.....	22	15	Screw, tug.
Gilphie.....	19	18	Screw, tug.
Florence M.....	8	6	Screw, tug.
Espanola.....	7	5	Screw, freight.
Mills.....	11	7	Screw, fishing tug.
Lorne Hale.....	22	14	Paddle, alligator tug.
Maude S.....	14	11	Screw, tug.
Agnes C.....	20	10	Screw, tug.

SESSIONAL PAPER No. 23a

STEAM VESSELS not Inspected for the fiscal year ended March 31, 1907—*Continued.*WEST ONTARIO, COLLINGWOOD DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross	Registered	Remarks.
	Tonnage.	Tonnage.	Why not Inspected and Class of Vessel.
W. J. Strong.....	41	28	Screw, tug.
Ethel.....	13	9	Screw, fishing tug.
Sea Gull.....	19	13	Screw, fishing tug.
Mizpah.....	18	12	Screw, yacht.
Minnie M.....	613	276	Screw, freight and passenger.
Ossifrage.....	632	303	Screw, freight and passenger.
Odessa.....	12	8	Screw, yacht.
C. E. Benham.....	140	93	Screw, tug.
Wales.....	350	238	Screw, tug
Total	47,923	31,692	

E. W. McKEAN,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Elsie.....	145	Sept. 5....	48	Screw, pass., Toronto Bay.
1907.				
Dundurn.....	129	July 9....	1,120	Screw, pass., lakes and rivers.
Turbinia.....	1,550	" 10....	1,064	Screw, pass., lakes and rivers.
Minnicog.....	32	" 11....	35	Screw, pass., Point aux Baril and Penetang.
John Lee, sr.	C. 284	" 11....	88	Screw, pass., Collingwood and Penetang.
Mayflower.....	L. 200	" 11....	27	Screw, pass., tug, Pt. aux Baril & Penetang.
C. W. Chamberlain..	35	" 11....	385	Screw, freight, lakes and rivers.
Myrtle.....	40	" 13....	9	Screw, pass., Pt. Abino and Crystal Beach.
John Hanlan.....	176	" 18....	37	Screw, pass., Toronto Bay.
Midland King.....	8	" 19....	3,966	Screw, pass. and freight, lakes and rivers.
United Lumberman..	"	" 19....	399	Screw, freight, lakes and rivers.
Emma.....	250	" 24....	146	Screw, pass., Pt. aux Baril and Penetang.
Lorna Doone.....	35	" 24....	26	Screw, pass., Pt. aux Baril and Moose Point.
Eleanor.....	150	" 25....	84	Screw, pass., Pt. aux Baril and Penetang.
City of Meaford....	296	" 26....	328	Screw, pass., lakes and rivers.
Ottawa.....	"	" 28....	2,431	Freight, lakes and rivers.
Siesta (gasoline)..	26	" 11....	5	Pass., Penetang and Moose Point.
Puffing Billy (gasoline).....	10	" 11....	3	" " "
Abino.....	40	" 21....	8	Screw, pass., Niagara River.
Pearl.....	23	" 27....	6	Screw, pass., Pt. aux Baril and Penetang.
Clark Bros.....	216	Aug. 27....	92	Screw, pass., Toronto Bay.
Acacia.....	200	" 28....	107	Screw, pass., Hamilton and Burlington.
Goldspie.....	20	" 29....	1,122	Screw, pass. and freight, lakes and rivers.
Norseman.....	"	Sept. 6....	620	Screw, freight, lakes and rivers.
Ionic.....	5	" 6....	1,708	Screw, pass. and freight, lakes and rivers.
Caribou.....	21	" 26....	597	Screw, pass., lakes and rivers.
Marion.....	40	Oct. 11....	9	Screw, pass., Sarnia and Windsor.
Comfort.....	40	" 11....	14	Screw, pass., Sarnia and Amherstburg.
International.....	"	" 12....	291	Screw, freight, Port Huron and Sarnia.
Great Western.....	191	" 16....	1,080	Paddle, pass., Detroit and Windsor.
Lansdowne.....	200	" 10....	1,571	" " "
Huron.....	191	" 10....	1,052	Screw, pass., car ferry, Detroit & Windsor.
John Haggart.....	213	" 19....	184	Screw, pass., Soo River.
Algoma.....	650	" 22....	157	Screw, pass., Pt. Iroquois and Bruce Mines.
Andrew J. Smith....	30	" 23....	387	Screw, pass., tug, Port Arthur and Soo.
Chiblow.....	40	" 24....	79	Towed scow; Blind River.
Annie Moiles.....	25	" 25....	71	Screw, pass., tug, Killarney and Soo.
Fanny Arnold.....	30	" 25....	73	" " "
Edna Ivan.....	40	" 26....	54	Screw, pass., Little Current and Thessalon.
Iroquois.....	250	" 26....	240	Screw, pass., Soo and Collingwood.
Fred Davidson.....	40	" 27....	43	Screw, pass., Killarney and Soo.
Agnes Smith.....	40	" 27....	57	" " "
J. G. Gidley.....	40	" 27....	57	" " "
W. H. Seymour.....	16	" 27....	85	Screw, pass. & tug, Killarney & Blind River.
Ahtek.....	20	" 27....	29	Screw, tug, Killarney and Soo.
Scotch Thistle.....	27	" 27....	17	Screw, pass., Killarney and Blind River.
Geo. N. Cuyler.....	20	" 27....	56	Screw, pass., Soo and French River.
J. H. Jones.....	200	Nov. 22....	152	Screw, pass., Lake Huron & Georgian Bay.

W. EVANS,

Hull Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

WEST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Britannia	2,700	June 19..	791	Screw, passenger, Detroit River.
Adieu	25	Aug. 25..	5	Screw, passenger, Detroit River.
1906.				
Pere Marquette.....	500	Nov. 3..	2,531	Screw, passenger, Detroit River.
1907.				
Helen	60	June 7..	32	Screw, passenger, bays and rivers.
Ogemaw	25	April 17..	594	Screw, passenger and freight, lakes, bays and rivers.
International.....	245	July 6..	144	Screw, passenger.
Welcome	150	Sept. 21..	140	Screw, passenger, St. Clair River.
Omar D. Conger.....	600	" 29..	196	Screw, passenger, bays and rivers.
Transfer		" 4..	1,511	Ferry, Windsor and Detroit.
Transport		Aug. 3..	1,594	Paddle ferry, Detroit River.
Michigan Central.....		Sept. 10..	1,522	Paddle ferry, Detroit River.
Ariel	450	" 2..	201	Screw, passenger, Walkerville and Detroit.
City of Grand Rapids	350	July 7..	399	Screw, passenger, Buffalo and Port Huron.
Pere Marquette.....	500	Nov. 1..	2,531	Screw, passenger, car ferry.
Fuller		Aug. 25..	13	Screw, ferry, St. Clair River.
Detroit.....		Oct. 15..	2,089	Screw, car ferry, Detroit and Windsor.
Victoria		Sept. 18..	192	Passenger ferry, Detroit and Windsor.
Niagara		Nov. 24..	213	Passenger ferry, Niagara River.

W. EVANS,

Hull Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels inspected for the nine months of fiscal year ended March 31, 1907.

EAST ONTARIO, KINGSTON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
C. W. Cole.....		July 4..	15 50	Screw, fish tug, Bay of Quinte.
Donnelly.....		" 5..	318 91	Paddle, tug, River St. Lawrence.
Homer (gasoline).....		" 2..	2 02	Screw, Rideau Canal.
The Inn.....	12	July 10..	2 02	Screw, Gananoque & Clayton.
Riverview.....	20	June 28..	4 76	Screw, Kingston & Brockville.
McClintock.....		July 16..	20 72	Paddle, tug, Kawartha Lakes.
Rob Roy.....		" 16..	12 17	Screw, private yacht, Otonabee R.
Bobs.....		" 16..	11 43	Screw, private yacht, Stoney Lake.
Flash.....		" 16..	6 27	Screw, private yacht, Rice Lake.
Rainbow.....	138	" 10..	50 69	Screw, passenger, Cos. Victoria and Peterboro.
Arthemise.....		" 16..	10 75	Screw, yacht, Cos., Victoria and Peterboro.
Myrtle.....		" 5 26	5 26	Screw, tug, Cos., Victoria and Peterboro.
Coboconk.....		" 9 11	9 11	Paddle, tug, Cos. Victoria and Peterboro.
Mermaid.....		July 10..	10 95	Screw, private yacht, Cos. Victoria and Peterboro.
Waterlily.....	166	" 10..	53 93	Screw, passenger, Cos. Victoria and Peterboro.
Mollie.....		" 10..	10 72	Screw, private yacht, Cos. Victoria and Peterboro.
Beaver.....	40	" 10..	18 00	Screw, passenger, Cos. Victoria and Peterboro.
Maida Vale.....		" 10..	18 74	Screw, private yacht, Cos. Victoria and Peterboro.
Victoria.....		" 10..	3 90	Screw, private yacht, Cos. Victoria and Peterboro.
Sovereign.....		" 10..	44 92	Screw, tug, Cos. Victoria and Peterboro.
Majestic.....	140	" 10..	67 77	Screw, passenger, Cos. Victoria and Peterboro.
Hazlitt.....		" 10..	23 70	Paddle, tug, Cos. Victoria and Peterboro.
Stoney Lake.....	272	" 10..	155 82	Screw, passenger, Cos. Victoria and Peterboro.
Empress.....	224	" 10..	84 48	Screw, passenger, Cos. Victoria and Peterboro.
Dawn.....	20	" 10..	26 20	Screw, passenger, Cos. Victoria and Peterboro.
Calumet.....	17	" 10..	21 87	Screw, passenger, Cos. Victoria and Peterboro.
Pearl.....		" 10..	6 39	Screw, private yacht, Cos. Victoria and Peterboro.
Ogemah.....	175	" 10..	71 75	Paddle, passenger, Cos. Victoria and Peterboro.
Esturion.....	300	" 10..	139 39	Paddle, passenger, Cos. Victoria and Peterboro.
Manita.....	145	" 10..	34 10	Screw, passenger, Cos. Victoria and Peterboro.
Maple Leaf.....		" 10..	26 08	Screw, tug, Cos. Victoria and Peterboro.
Ajax.....		" 10..	32 97	Screw, tug, Cos. Victoria and Peterboro.
White Star.....		" 10..	8 88	Screw, tug, Cos. Victoria and Peterboro.
Evelin.....		" 10..		Screw, fishing boat, Cos. Victoria and Peterboro.
Marie Louise.....		" 10..	32 19	Screw, tug, Cos. Victoria and Peterboro.
Baptiste.....		" 10..	7 51	Paddle, tug, Cos. Victoria and Peterboro.
Hiawatha.....		" 10..	22 25	Screw, tug, Cos. Victoria and Peterboro.
Alexandra.....		" 10..	104 92	Screw, tug, Cos. Victoria and Peterboro.
Rockaway.....		" 10..	6 80	Paddle, tug, Cos. Victoria and Peterboro.
Comet.....		" 10..	7 60	Screw, private yacht, Cos. Victoria and Peterboro.
Kathleen.....	145	" 10..	37 36	Screw, passenger, Cos. Victoria and Peterboro.
Cora.....	40	" 10..	22 61	Screw, passenger, Cos. Victoria and Peterboro.
Stranger.....		" 10..	53 41	Screw, tug, Cos. Victoria and Peterboro.
Kawartha.....	25	" 10..	16 98	Screw, passenger, Cos. Victoria and Peterboro.
Damntless.....	15	" 10..	3 38	Screw, passenger, Cos. Victoria and Peterboro.
Beaver.....		" 10..	91 50	Paddle, tug, Cos. Victoria and Peterboro.
St. Charles.....		" 10..	26 44	Screw, tug, Cos. Victoria and Peterboro.
Go Now (gasoline).....		" 1 15	1 15	Screw, River St. Lawrence.
Lolita, ".....		" 1 70	1 70	Screw, River St. Lawrence.
D. S. Walker.....		Aug. 9..	55 55	Screw, tug, River St. Lawrence.
Annie Barrett.....		" 9..	41 89	Screw, tug, River St. Lawrence.
Beaver.....		" 10..	40 88	Screw, tug, River St. Lawrence.
Gracie.....	40	" 10..	10 50	Paddle, passenger, Cornwall and Stanley Island.
Mary Ellen.....		" 10..	20 22	Screw, tug, River St. Lawrence.
Mabel C.....		" 10..	4 48	Screw, tug, River St. Lawrence.
Princess Louise.....	40	" 11..	23 36	Screw, passenger, Cornwall and Dundee.
A. B. Cook.....		" 10..	34 17	Screw, tug, River St. Lawrence.
Ivy.....	29	" 11..	7 43	Screw, passenger, Cornwall and Stanley Island.
Frontenac.....		" 1..	110 76	Screw, tug, River St. Lawrence.
Lillian B.....	20	" 20..	3 76	Screw, passenger, Carleton Place and Innisville.

SESSIONAL PAPER No. 23a

STEAM Vessels inspected for the nine months of fiscal year ended March 31, 1907.

EAST ONTARIO, KINGSTON DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Mississippi		Aug. 21..	4 15	Screw, tug, Mississippi River.
Kilbirnie		" 21..	15 23	Screw, private yacht, Rideau Canal.
Tropic		" 21..	8 86	Screw, passenger yacht, Rideau Canal.
Nellie		" 21..	6 82	Screw, passenger yacht, Rideau Canal.
Stranger	200	" 21..	65 26	Screw, passenger, Kingston and Ottawa.
Wenonah		Aug. 22..	5 59	Screw, private yacht, Rideau Canal.
Aileen	40	" 22..	24 00	Screw, passenger, Kingston and Ottawa.
D. Stewart		" 23..	295 21	Dredge, Canal and River St. Lawrence.
Umbria		" 23..	42 98	Screw, tug, Canal and River St. Lawrence.
John Hunter		" 23..	32 14	Screw, tug, Canal and River St. Lawrence.
Iroquois		" 24..	287 18	Dredge, Canal and River St. Lawrence.
Gilbert		" 24..	40 83	Screw, tug, Canal and River St. Lawrence.
Torpedo		" 24..	197 69	Drill boat, Canal and River St. Lawrence.
Frank		" 24..	15 97	Screw, tug, Canal and River St. Lawrence.
Mary		" 25..	53 49	Screw, tug, Canal and River St. Lawrence.
Zeila		" 25..	3 40	Screw, private yacht, Canal and Riv. St. Lawrence.
Jopl	40	" 29..	10 54	Screw, passenger, Kingston and Ottawa.
Wawinet		July 20..	57 90	Screw, private yacht, Lindsay waters.
Prince Edward	10	Aug. 10..	18 22	Paddle, passenger, Glenora and Adolphustown.
Mohawk Queen		" 15..	16 01	Screw, private yacht, Bay of Quinte.
Florence		" 15..	6 70	Screw, fish tug, Bay of Quinte.
Emile		" 11..	11 80	Screw, tug, River St. Lawrence.
Capital		" 11..	100 00	Dredge, River St. Lawrence.
Myra		" 11..	73 21	Screw, tug, River St. Lawrence.
George H.	10	Sept. 25..	4 16	Screw, passenger, Collins Bay and Brockville.
M. & W.	20	" 1..	8 48	Screw, passenger, Kingston and Brockville.
Rex		Aug. 15..	13 26	Screw, private yacht, River St. Lawrence.
Wm. Johnson		Oct. 15..	94 72	Screw, tug, River St. Lawrence.
		1908.		
Scout		Mar. 13..	196 27	T. S. Buoy boat, River St. Lawrence.
Reserve		" 14..	48 74	Screw, tug, River St. Lawrence.
Total			3,884 49	

T. P. THOMPSON,
Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

EAST ONTARIO, KINGSTON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Idler	75	June 21..	57	Screw, pass., L. Ontario and River St. Lawrence.
Castanet	175	May 30..	54	Screw, passenger, Cape Vincent and Ogdensburg.
Niagara	31	" 29..	35	Screw, passenger, northwestern lakes and rivers.
Columbia	40	June 7..	26	Screw, passenger, Tibbet's Point and Ogdensburg.
Iroquois	1,200	" 21..	1,169	Screw, passenger, northwestern lakes and rivers.
Henry Plumb		" 15..	92	Screw, ferry, Ogdensburg and Prescott.
Outing	40	July 25..	15	Screw, pass., Cape Vincent and Fort Covington.
I. Wonder	25	" 11..	16	Screw, pass., Cape Vincent and Fort Covington.
Gen. W. B. Franklin	31	Aug. 7..	11	Screw, pass., Cape Vincent and Fore Covington.
Aida	32	Sept. 25..	37	Screw, River St. Lawrence.
Wm. Armstrong		Oct. 29..	181	Screw, ferry, Prescott and Ogdensburg.
Total			1,693	

T. P. THOMPSON,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

EAST ONTARIO, KINGSTON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
City of Montreal	1,553·64	867·60	Screw, passenger, Montreal and Duluth.
Aletha	171·27	89·98	Screw, passenger, Brighton and Montreal.
Rosemount	1,580·37	989·27	Screw, passenger, Kingston and Simpson's Island.
Westmount	1,874·76	1,771·39	Screw, freight, Duluth and Quebec.
Fairmount	1,895·20	1,183·71	Screw, freight, Duluth and Quebec.
Emerson	276·47	188·00	Screw, tug, R. St. Lawrence.
Wolfe Islander	223·95	98·30	Paddle, passenger, Kingston and Prescott.
Reliance	239·14	168·62	Twin screw, passenger, Chicago and Quebec.
Rescue	52·29	35·56	Screw, passenger, Deseronto and Picton.
Arctic	100·51	82·94	Screw, freight, River St. Lawrence.
Ella Ross	324·88	189·65	Paddle, passenger, Brighton and Prescott.
Ranger	13·83	8·18	Screw, tug, Bay of Quinte.
Lloyd S. Porter	488·63	379·45	Screw, freight, Chicago and Quebec.
Water Lily	95·09	59·50	Screw, freight, lake and river.
Aberdeen	141·86	87·37	Screw, freight, lake and river.
Simla	1,490·04	972·85	Screw, freight, Duluth and Quebec.
India	976·49	572·82	Screw, freight, Duluth and Quebec.
D. D. Calvin	749·53	482·73	Screw, freight, Duluth and Quebec.
Iona	231·53	157·45	Screw, freight, Chicago and Montreal.
Mary P. Hall	103·78	42·52	Screw, tug, River St. Lawrence.
Glide	77·90	36·82	Screw, tug, River St. Lawrence.
Jessie Hall	56·54	29·44	Screw, tug, River St. Lawrence.
David G. Thomson	185·05	78·24	Screw, tug, River St. Lawrence.
H. F. Bronson	137·12	70·42	Twin screw, tug, River St. Lawrence.
Rideau King	265·92	197·23	Screw, passenger, Kingston and Ottawa.
Navajo	179·32	92·19	Screw, freight, Hamilton and Quebec.
Alexandria	863·15	507·99	Paddle, passenger, Charlotte and Quebec.
Madge	7·22	5·12	Screw, passenger, yacht, Bay of Quinte.
Niagara	396·43	214·59	Screw, passenger, Hamilton and Montreal.
Chieftain III	355·11	147·47	Paddle, tug, River St. Lawrence.
Pierrepont	251·98	152·57	Paddle, passenger, Trenton and Prescott.
Bothnia	883·36	478·35	Screw, freight, Chicago and Quebec.
Wherenow	47·78	26·33	Screw, passenger, Kingston and Prescott.
City of New York	292·00	198·56	Screw, freight, Chicago and Quebec.
Missisquoi	150·66	92·73	Screw, passenger, Trenton and Montreal.
North King	872·95	498·61	Paddle, passenger, Charlotte and Prescott.
Parthia	198·13	84·46	Screw, tug, River St. Lawrence.
Westport	80·27	49·18	Screw, freight, Rideau Canal.
Kate	22·41	15·24	Screw, private yacht, River St. Lawrence.
Rideau Queen	350·75	195·50	Screw, passenger, Kingston and Ottawa.
Valeria	51·55	33·25	Screw, passenger, Morrisburg and Waddington.
Naiad	15·41	9·80	Screw, private yacht, River St. Lawrence.
Edmond	39·10	22·70	Screw, tug, Rideau Canal.
America	520·53	266·29	Paddle, passenger, Trenton and Montreal.
Gilbert	40·83	28·03	Screw, tug, canal and river.
Cardinal	256·55	140·44	Twin screw, freight, Kingston and Montreal.
Varuna	134·04	85·20	Screw, passenger, Brighton and Prescott.
Trenton	100·00	...	Dredge, canal and river.
Trent	19·51	12·30	Paddle, tug, Bay of Quinte.
Dean	18·28	12·43	Screw, fishing tug, Bay of Quinte.
Annie Lake	18·52	12·60	Screw, passenger, Trenton and Prescott.
Reindeer	58·29	33·53	Screw, passenger, Prinyers Cove and Napanee.
Florence	3·08	2·09	Screw, private yacht, Bay of Quinte.
Jessie Forward	5·64	3·84	Screw, private yacht, Bay of Quinte.
Vernon Jr.	46·06	25·58	Screw, private yacht, River St. Lawrence.
John Randall	166·33	75·76	Screw, freight, River St. Lawrence.
Caspian	957·44	543·44	Paddle, passenger, Charlotte and Prescott.
Otanabee	136·44	87·43	Screw, passenger, Cos. Victoria and Peterboro.
Brockville	190·75	87·64	Screw, passenger, Kingston and Cornwall.
Hattie Bell	7·69	5·23	Screw, private yacht, Cos. Victoria & Peterboro.
Genl. W. B. Franklin	20·42	15·86	Screw, passenger, Kingston and Ottawa.
Argyle	700·29	373·87	Paddle, passenger, Buffalo and Quebec.

7-8 EDWARD VII., A. 1908

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

EAST ONTARIO, KINGSTON DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross	Registered	Remarks.
	Tonnage.	Tonnage.	Why not Inspected and Class of Vessel.
Vacuna.....	51 77	35 21	Screw, private yacht, River St. Lawrence.
Victoria.....	58 10	39 51	Screw, passenger, Kingston and Prescott
Magedoma.....	138 21	65 28	Screw, private yacht, River St. Lawrence.
Kenneth.....	4 11	2 45	Screw, private yacht, River St. Lawrence.
International.....	395 31	268 82	Twin screw, freight, Prescott and Ogdensburg.
Kinirving.....	146 40	69 70	Screw, freight, Rideau Canal & Lake Ontario.
Total...	22,486 96	13,357 21	

T. P. THOMPSON,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

EASTERN ONTARIO, KINGSTON DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Homer.....	8	July 9..	2	Screw, passenger, Lobourgh Lake.
The Inn	12	" 10..	2	Screw, passenger, Gananoque and Clayton.
Westmount		" 11..	1,879	Screw, freight, lakes and rivers.
1906				
Missisquoi.....	260	Sept. 21..	160	Screw, passenger, Trenton and Montreal.
1907				
Kathleen.....	145	July 17..	37	Screw, passenger, Co. Victoria and Peterboro.
Manita.....	145	" 17..	34	Screw, passenger, Co. Victoria and Peterboro.
Cora.....	40	" 17..	23	Screw, passenger, Co. Victoria and Peterboro.
Esturian.....	300	" 17..	139	Paddle, passenger, Co. Victoria and Peterboro.
Dauntless.....	15	" 18..	3	Screw, passenger, Co. Victoria and Peterboro.
Kawartha.....	25	" 18..	17	Screw, passenger, Co. Victoria and Peterboro.
Calumet.....	17	" 18..	22	Screw, passenger, Co. Victoria and Peterboro.
Dawn.....	20	" 18..	20	Screw, passenger, Co. Victoria and Peterboro.
Ogemah.....	175	" 19..	72	Paddle, passenger, Co. Victoria and Peterboro.
Empress.....	224	" 19..	84	Screw, passenger, Co. Victoria and Peterboro.
Stoney Lake.....	272	" 19..	156	Screw, passenger, Co. Victoria and Peterboro.
Majestic.....	140	" 20..	68	Screw, passenger, Co. Victoria and Peterboro.
Beaver.....	40	" 20..	18	Screw, passenger, Co. Victoria and Peterboro.
Waterlily.....	160	" 20..	54	Screw, passenger, Co. Victoria and Peterboro.
Rainbow.....	138	" 21..	51	Screw, passenger, Co. Victoria and Peterboro.
Monarch.....	180	" 21..	73	Screw, passenger, Co. Victoria and Peterboro.
Sovereign.....	Not issued	...	45	Screw, passenger, Co. Victoria and Peterboro.
Glenada.....	40	June 10..	65	Screw, passenger, Burks Falls and Ahmic Harbour.
Algonquin.....	466	Not issued	305	Screw, passenger, Huntsville and vicinity.
Helen.....	10	"	3	Screw, passenger, Muskoka Lakes.
Lena.....	10	"	3	Screw, passenger, Muskoka Lakes.
Helena.....	10	"	3	Screw, passenger, Muskoka Lakes.
Thelma.....	10	"	.....	Screw, passenger, Muskoka Lakes.
Sunbeam.....	20	"	.....	Screw, passenger, Muskoka Lakes.
Mattie.....	10	June 15..	2	Screw, passenger, Muskoka Lakes.
Lillian B.....	20	Aug. 23..	4	Screw, passenger, Carleton Place and Innisville.
Lee.....	40	" 24..	9	Screw, passenger, Kingston and Ottawa.
Aileen.....	40	" 24..	24	Screw, passenger, Kingston and Ottawa.
Jopl.....	40	" 29..	11	Screw, passenger, Kingston and Ottawa.
Cardinal.....	.....	Sept. 4..	237	Scaew, freight, Fair Haven and Montreal.
Anchora.....	12	June 15..	6	Screw, passenger, Muskoka Lakes.
Rosena.....	Not issued	.....	6	Screw, passenger, Muskoka Lakes.
Princess Louise.....	40	Sept. 18..	26	Screw, passenger, Cornwall and Dundee.
Ivy.....	29	" 18..	7	Screw, passenger, Cornwall and Stanley Island.
Gracie.....	40	" 18..	10	Paddle, passenger, Cornwall and Stanley Island.
Mabel C.....	Not issued	.....	4	Screw, passenger, Cornwall and Stanley Island.
George H.....	10	Sept. 25..	4	Screw, passenger, Collins Bay and Brockville.
M. & W.....	20	" 28..	8	Screw, passenger, Kingston and Brockville.
Tecumseh.....	Not issued	.....	840	Screw, freight, lakes and rivers.

M. R. DAVIS,

Hull Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

EASTERN ONTARIO, KINGSTON DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues Inspection Fees Paid.	Class of Vessel and where Employed.
		1907.			
Idler.	150	June 21..	57	..	Screw, passenger, River St. Lawrence and 15 miles on lake.
Castanet.....	175	May 30..	54	.....	Screw, passenger, C. Vincent and Ogdensburg.
Columbia	40	June 7..	26	.....	Screw, passenger, Tibbets Pt. and Ogdensburg.
Iroquois	1,200	" 21..	1,170	.....	Screw, passenger, lakes and rivers.
Arundell.....	650	" 1..	339	.....	Screw, passenger, lakes, bays and rivers.
Henry Plumb.....	..	" 15..	92	.....	Screw, ferry, Prescott and Ogdensburg.
Outing..	25	" 25..	15	.....	Screw, passenger, C. Vincent and Ft. Covington.
Gen. W. B. Franklin	31	Aug. 7..	11	.....	Screw, passenger, C. Vincent and Ft. Covington.
I. Wonder	25	July 11..	16	.....	Screw, passenger, C. Vincent and Ogdensburg.
Capt. Dave Wagoner	22	June 14..	19	.....	Screw, passenger, C. Vincent and Ogdensburg.
Aida.	32	Sept. 25..	38	.....	Screw, passenger, R. St. Lawrence and 15 miles on lake
Wm. Armstrong....	.....	Oct. 29..	181		Screw, ferry, Prescott and Ogdensburg.

M. R. DAVIS,

Hull Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Lady of the Lake..	680	July 2..	607	Paddle, passenger, Newport and Magog.
John A.....		" 2..	20	Screw, tug, Lake Memphrenagog.
Alma.....	10	" 3..	6	Screw, passenger, Lake Memphrenagog.
Pocahontas.....	95	" 3..	36	Screw, passenger, Lake Massawippi.
Norway Belle.....	20	" 5..	46	Paddle, ferry, Sand Point and Norway Bay.
Ruby.....	10	" 5..	11	Screw, passenger, Barry's Bay and Havergal.
John.....	35	" 26..	34	Stern wheel, tug, Carillon and Point Fortune.
Princess.....	156	" 27..	527	Paddle, passenger, Montreal and Carillon.
Isleway.....		Aug. 1..	14	Screw, yacht, St. Lawrence River.
Chance.....	10	" 2..	5	Screw, passenger, Lake Temagami.
Beaver.....	10	" 2..	2	Screw, passenger, Lake Temagami.
Spry.....	10	" 3..	13	Screw, passenger, Lake Temagami.
Wanda.....	30	" 3..	39	Screw, passenger, Lake Temagami.
Geisha.....	25	" 4..	20	Screw, passenger, New Liskeard and Tomstown.
Temiskaming.....	135	" 4..	295	Screw, passenger, New Liskeard and Temiskaming.
Jubilee.....	40	" 6..	117	Screw, passenger, Ville Marie and North Temiskaming.
Blauche.....	40	" 4..	30	Screw, passenger, New Liskeard and Tomstown.
Lady Minto.....		" 7..	403	Paddle, tug, Lake Temiskaming.
Alexandra.....		" 7..	417	Paddle, tug, Lake Temiskaming.
Alert.....		" 7..	53	Screw tug, Lake Temiskaming.
Beaver.....		" 8..	13	Warp tug, Lake Temiskaming.
Mink.....		" 8..	14	Warp, tug, Lake Temiskaming.
Meteor.....	214	" 8..	299	Screw, passenger, Temiskaming and New Liskeard.
Ville Marie.....	12	" 8..	32	Screw, passenger, Temiskaming and New Liskeard.
Clyde.....	16	" 9..	29	Screw, passenger, Lake Kippewa.
C. E. Read.....		" 9..	13	Warp tug, Lake Kippewa.
Alice.....	40	" 9..	26	Screw, passenger, Lake Kippewa.
Colonial.....		" 9..	47	Screw, tug, Lake Kippewa.
Surveyor.....	32	" 15..	50	Screw, ferry, Lachine and Caughnawaga.
Dredge Premier.....		" 18..	117	Dredge, St. Lawrence River.
Jessie.....		" 18..	19	Screw, tug, rivers.
Beauharnois.....	195	" 24..	167	Paddle, passenger, Montreal and Beauharnois.
Garnet.....	213	" 27..	152	Paddle, passenger, Montreal and Cornwall.
Ruth.....		" 28..	36	Screw, tug, Ottawa River.
Eva.....	10	" 28..	21	Paddle, ferry, Montobello and Alfred.
Agnes.....	40	" 29..	29	Screw, passenger, Buckingham and High Rock.
Mildred.....	25	" 29..	15	Screw, passenger, Buckingham and High Rock.
St. Louis.....		Sept. 1..	29	Screw, yacht, St. Lawrence River.
Sand King.....		Dec. 1..	158	Screw, freight, rivers.
Total.....			4,041	

WM. LAURIE,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

MONTREAL DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Borgestad		July 11....	3,924	Screw, freight, Montreal and Gulf ports.
Agnar		" 11....	1,567	" "
Atlas		" 23....	1,332	" "
Egholm.		" 26....	1,202	" "
Mimer.....		Aug. 11....	1,125	" "
Times		" 13 .	2,096	" "
Total			11,246	

WM. LAURIE,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Longueuil	365	230	Paddle, passenger, inspected since.
Boucherville	419	256	" " " "
R. T. Holcomb	375	165	Screw, freight " "
Victoria	181	108	Screw, passenger " "
Scotsman	265	114	" " " "
Hebron	149	98	Screw, freight " "
Victoria	188	99	Paddle, passenger " "
D. B. Mulligan	77	46	Screw, ferry " "
E. H. Bronson	285	180	Paddle, tug " "
Alex. Fraser	320	174	" " " "
Hercules	21	13	Warp tug " "
Mahigama	20	19	Screw, passenger " "
Archie Stewart	80	50	Screw, tug " "
Sir Hector	40	10	" " " "
Florence	38	24	" " " "
Dolphin	70	37	" " " "
Rockland	78	50	" " " "
Ada	29	13	" " " "
Mansfield	169	137	Screw, ferry " "
Charlemagne	76	52	Screw, tug " "
Hall	247	136	Screw, passenger " "
Ottawan	311	167	" " " "
Welshman	156	99	" " " "
Alva	27	22	Screw, tug " "
Ida	247	155	Screw, passenger " "
Filgate	425	237	Paddle, passenger " "
Salaberry	222	142	Screw, passenger " "
Chaffey	42	29	" " " "
White Squall	7	5	Screw, yacht " "
Duchess of York	490	261	Paddle, passenger " "
Empress	678	372	" " " "
G. B. Greene	253	218	" " " "
Albert	269	199	Paddle, tug " "
G. B. Pattee II	51	38	Screw, tug " "
Col. By	9	6	" " " "
Pontiac	116	97	Paddle, passenger " "
Madawaska	15	7	Paddle, tug " "
Amable du Fond	17	11	" " " "
J. L. Murphy	173	109	Screw, tug " "
Hamilton	320	202	Paddle, tug " "
Saupoon	15	7	" " " "
Colonge	18	12	" " " "
C. B. Powell	272	172	" " " "
Pembroke	194	122	" " " "
May Flower	59	38	Stern wheel, passenger " "
St. Laurent	546	313	Paddle, ferry " "
Poupore	47	22	Screw, ferry " "
Willie C.	8	6	" " " "
Dredge Canada	100	.....	Spoon, dredge " "
Dredge Central City	224	117	" " " "
Dredge Chateauguay	100	.....	" " " "
Glide	80	54	Screw, tug " "
T. Osborne	25	18	" " " "
Idler	51	32	Stern wheel, tug " "
Leo	2	1	Screw, passenger " "
Bout de l'Isle	15	10	Screw, ferry " "
G. H. Harris	87	56	Screw, tug " "
Beatrice B.	59	43	Screw, passenger " "
Chummy	5	4	Screw, tug " "
Robert Anglin	97	52	Screw, freight " "
Nile	96	49	" " " "
Cape Breton	1,764	1,109	" " " "
Valleyfield	417	280	Twin screw, passenger " "

7-8 EDWARD VII., A. 1908

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

MONTREAL DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
W. P. Buckley.....	27	12	Screw, tug, inspected since.
Dredge F. F. Moore No.1	100	.....	Spoon dredge, "
Dredge F. F. Moore No.3	100	.....	" " " "
Riviere du Loup.....	199	130	Paddle, dredge, "
Russell.....	76	45	Screw, tug, "
Aid.....	25	15	Stern wheel, tug, "
Nokomis.....	25	17	Screw, yacht, "
Hubert Larkin	49	33	Screw, tug, "
Owl.....	4	3	Screw, passenger, "
Chateauguay.....	222	119	Paddle, passenger, "
Lottie.....	12	8	Screw, ferry, "
R. Hurdman.....	93	68	Screw, tug, "
St. Antoine.....	14	9	Screw, passenger, "
Wenona.....	26	17	" " " "
Adrelexa.....	20	14	" " " "
Sparrow.....	38	16	" " " "
Sea Flower.....	7	5	Screw, tug, "
Rosianna.....	Register not	complete.	" " " "
Fire Fly.....	214	130	Paddle, passenger, "
Beaver.....	41	24	Paddle, tug, "
Hudson.....	45	37	Stern wheel, tug, "
Tit Willow.....	17	11	Screw, yacht, not in commission.
Monoco.....	10	6	" " " "
Union.....	75	66	Screw, ferry, "
Massawippi.....	4	3	Screw, passenger, "
Tiger.....	4	3	Screw, tug, no application.
Wild Rose.....	10	6	Screw, yacht, "
Annie C.....	6	4	Screw, tug, "
Mudpout.....	34	25	" " " "
Bonito.....	17	12	" " " "
Lyon C.....	19	13	" " " "
Sarto.....	18	11	Screw, yacht, "
Total.....	13,154	7,764	

WM. LAURIE,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Frank Perew.....		July 5....	43	Screw, tug, rivers and canals.
Maggie R. King		" 19....	27	Screw, tug, Soulanges Canal.
St. Louis.....		" 28....	34	Screw, tug, Ottawa River.
Derrick No. 1.....		Aug. 8....	100	Derrick, Montreal Harbour.
Total.....			204	

LOUIS ARPIN,

Steamboat Inspector.

7-8 EDWARD VII., 'A. 1908

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
Aberdeen.....	87	55	Screw, tug and passenger, inspected since.
Robert Mackay.....	129	87	Screw, tug and passenger, inspected since.
Alphonse Racine.....	121	69	Screw, tug and passenger, inspected since.
Derrick No. 5.....	100	.....	Derrick, inspected since.
St. Peter.....	66	41	Screw, tug and passenger, inspected since.
Dredge No. 4.....	461	436	Dipper dredge, inspected since.
Dredge No. 2.....	100	.....	Dipper dredge, inspected since.
Derrick No. 4.....	100	.....	Derrick, inspected since.
Courier.....	12	8	Screw, tug and passenger, inspected since.
Assistance.....	100	.....	Derrick, inspected since.
Nellie Reid.....	56	29	Screw, tug, inspected since.
Frank Jackman.....	39	26	Screw, tug, inspected since.
Drill Boat.....	100	.....	Drill boat, inspected since.
Ojibway.....	194	132	Screw, passenger, inspected since.
Grain Elevator No. 9.....	172	106	Grain elevator, inspected since.
Grain Elevator No. 13.....	178	109	Grain elevator, inspected since.
Grain Elevator No. 1.....	165	102	Grain elevator, inspected since.
Grain Elevator No. 10.....	173	107	Grain elevator, inspected since.
Grain Elevator No. 17.....	215	132	Grain elevator, inspected since.
Grain Elevator No. 4.....	188	118	Grain elevator, inspected since.
Grain Elevator No. 8.....	80	47	Grain elevator, inspected since.
Grain Elevator No. 18.....	214	132	Grain elevator, inspected since.
Grain Elevator No. 15.....	213	130	Grain elevator, inspected since.
Grain Elevator No. 12.....	183	114	Grain elevator, inspected since.
Grain Elevator No. 16.....	210	129	Grain elevator, inspected since.
Grain Elevator No. 11.....	169	103	Grain elevator, inspected since.
Grain Elevator No. 7.....	170	104	Grain elevator, inspected since.
Grain Elevator No. 6.....	170	107	Grain elevator, inspected since.
Mona.....	25	17	Screw, tug, inspected since.
Hector.....	21	14	Screw, tug, inspected since.
Grain Elevator No. 2.....	170	104	Grain elevator, inspected since.
Grain Elevator No. 5.....	80	47	Grain elevator, inspected since.
Kate.....	61	42	Tug, inspected since.
Ta Kit Esy.....	5	5	Tug, inspected since.
Quebec.....	108	60	Freight, inspected since.
Maggie R. Mitchell.....	40	27	Tug, inspected since.
Grain Elevator No. 14.....	181	112	Screw, grain elevator, not in commission.
Ida.....	26	7	Tug, not in commission.
Derrick No. 3.....	100	.....	Derrick, not in commission.
Derrick No. 6.....	100	.....	Derrick, inspection not completed.
Honore.....	22	15	No application.
Total.....	5,104	2,873	

LOUIS ARPIN,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

SOREL DIVISION.

BOILLERS AND MACHINERY

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Fire Fly.....	100	July 23..	214 41	Paddle, passenger, Sorel and Berthier.
St. Antoine	10	Oct. 4..	14 38	Screw, passenger, Belœil and St. Antoine.
Ferdinand.....	40	" 4..	76 39	Screw, passenger, Belœil and St. Antoine.
Arthur.....		July 23..	78 02	Paddle, tug, River St. Lawrence.
Galveston		Aug. 10..	1,271 00	Twin screw, Government dredge.
Yvon.....	Not issued	Sept. 21	.....	Registry not complete.
Alaska.....		Oct. 31.	.....	Registry not complete.
Total			1,154 20	

ALEXIS RONDEAU,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels not Inspected for the Fiscal Year ended March 31, 1907.

SOREL DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Murray Bay.....	968·70	619·41	Paddle, passenger and freight.
Sincennes.....	228·42	128·27	Paddle, tug.
Fred.....	23·72	13·68	Screw, tug.
Yvon.....	50·70	.....	.....
McNaughton.....	137·00	37·00	Screw, tug.
Spray.....	106·56	59·85	Screw, passenger, freight and tug.
Gertie.....	20·95	14·26	Screw, tug.
May.....	21·00	14·00	Screw, tug.
Alberta.....	125·48	62·03	Screw, tug.
Luciana.....	18·24	12·40	Screw, tug.
Tim Doyle.....	14·84	10·09	Screw, tug.
Mathilda.....	114·00	69·00	Screw, tug.
Picton.....	946·00	501·50	Paddle, passenger and freight.
Laprairie.....	599·75	372·50	Paddle, passenger and freight.
Prefontaine.....	899·37	532·80	Twin screw, passenger and freight.
Berthier.....	933·77	439·05	Paddle, passenger and freight.
Victoria.....	343·33	183·32	Screw, passenger and freight.
Cartier.....	Not registered	.....	Screw, Government tug attending dredges.
Frontenac.....	"	.....	Twin screw, Government tug Hydro. Survey.
James Howden.....	"	.....	Twin screw, Government tug Hydro. Survey.
Montcalm.....	"	.....	Twin screw, Government tug attending dredges.
Lac St. Pierre.....	"	.....	Twin screw, Government tug attending dredges.
Ethel.....	71·94	48·92	Screw, tug.
Rodolphe.....	116·00	72·00	Paddle, tug.
Shamrock.....	236·73	160·98	Screw, tug, attending buoys.
Florida.....	201·39	128·23	Screw, passenger and freight.
Pierreville.....	121·37	76·46	Paddle, passenger and freight.
Cornwall.....	914·02	575·84	Paddle, passenger and freight.
Alaska.....	245·08	144·17	Screw, passenger and tug.
Virginia.....	146·00	89·00	Screw, tug.
F. Dupre.....	114·48	70·35	Screw, tug.
Alice.....	67·17	45·68	Screw, tug.
Lucia.....	41·00	28·00	Screw, tug.
Rival.....	125·00	36·00	Paddle, tug.
St. Irene.....	2,158·48	1,259·33	Paddle, passenger.
Hamilton.....	937·87	476·54	Paddle, passenger.
Champlain.....	Not registered	.....	Screw, tug, Government, attending dredges.
Carmelia.....	"	.....	Screw, tug, Government, attending dredges.
Emilia.....	"	.....	Screw, tug, Government, attending dredges.
De Levis.....	"	.....	Twin screw, attending Hydro. Survey.
St. Jean Iberville.....	"	.....	Screw, tug, Government, attending dredges.
Julia.....	125·00	62·03	Screw, tug.
Montreal.....	4,282·23	2,299·41	Paddle, passenger.
Beaupre.....	2,068·09	1,070·20	Paddle, passenger.
Chambly.....	535·49	247·41	Paddle, passenger.
W. C. Francis.....	37·98	13·98	Screw, tug.
Trois Rivières.....	1,552·05	793·77	Paddle, passenger.
Terrebonne.....	635·72	319·95	Paddle, passenger.
Prescott.....	1,107·00	648·00	Paddle, passenger.
Brockville.....	884·38	569·93	Twin screw, passenger.
Hudson.....	158·18	79·89	Paddle, passenger and tug.
Total.....	22,434·48	12,376·23	

ALEXIS RONDEAU,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

QUEBEC DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Fern.....		July 11..	2	Screw, tug, Lake St. Theste.
Morto.....		" 12..	6	Screw, tug, Lake aux Sable.
Blanche.....		" 12..	7	Screw, tug, Lake aux Sable.
Ruth.....	10	" 14..	9	Screw, pleasure yacht, Lake St. Joseph.
Frances (gasoline)...		" 14..	4	Screw, yacht, Lake St. Joseph.
Jubilee.....	22	" 18..	28	Screw, passenger, Megantic, wharf and Wobun.
Macannamac.....		" 18..	4	Screw, pleasure yacht, Spider Lake.
White Wing.....		" 19..	26	Screw, tug, Lake St. Francis.
Dot.....		" 19..	10	Screw, tug, Lake St. Francis.
Hunkidori.....		" 19..	10	Screw, tug, Lake St. Francis.
George W. Smith.....		Aug. 24..	26	Screw, tug, Lake Metapedia.
Brulot.....		" 17..	8	Paddle, tug, Salmon Lake.
Oak Bay.....		" 17..	27	Paddle, tug, Restigouche River.
Christiana.....		" 17..	57	Paddle, tug, Restigouche River.
Frankie H.....		" 17..	17	Paddle, tug, Restigouche River.
Bella.....	40	" 17..	43	Paddle, ferry, Campbellton and Cross Point.
Nellie H.....	10	" 19..	8	Paddle, ferry, Gaspé.
Frank C. Batt.....		" 19..	33	Paddle, tug, Gaspé and Sandy Beach.
Commodore Holiwell.....		" 20..	10	Paddle, tug, Barachois.
Fearless.....		" 25..	10	Paddle, tug, Grand Pabos.
Maggie Allard.....		" 25..		Paddle, tug, Bonaventure and Verret.
Shirley.....		" 29..	29	Paddle, tug, Quebec and St. Anne.
Polaris.....	400	Oct. 15..	533	Paddle, ferry, Quebec and Levis.
Queen.....	400	Nov. 8..	367	Paddle, ferry, Quebec and Levis.
		1908.		
Campana.....	300	Mar. 31..	1,601	Twin screw, Pictou and Montreal.
Total.....			2,955	

JOS. SAMSON,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected in Canada but Registered elsewhere for the nine months of fiscal year ended March 31, 1907.

QUEBEC DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1907.		\$ cts.	
Aranmore	160	Aug. 1..	1,170	93 60	Screw, passenger, coasting trade.
King Edward... ..	120	June 6..	355	36 40	Screw, passenger, Montreal and Sydney.
Total.....			1625	130 00	

JOS. SAMSON,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEDM Vessels not Inspected for the fiscal year ended March 31, 1907.

QUEBEC DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Rhoda.....	182	59	Paddle, passenger.
Charpion.....	482	306	Paddle, passenger.
Orleans.....	269	183	Screw, ferry.
Frontenac.....	304	206	Twin screw, ferry.
William Hackett.....	129	86	Screw, tug.
J. H. Hackett.....	117	80	Screw, tug.
South.....	349	219	Paddle, passenger, ferry.
North.....	289	182	Paddle, passenger, ferry.
Gaspesien.....	490	287	Screw, passenger.
Orion.....	864	497	Screw, freight.
Montmorenci.....	28	19	Screw.
Otronto.....	35	24	Screw.
St. Croix.....	506	318	Paddle, passenger.
Diver.....	86	57	Screw.
Florence.....	113	30	Screw, tug.
Belle.....	82	41	Screw, tug.
Lord Stratheona.....	495	76	Twin screw.
Spray.....	24	14	Screw, tug.
J. G. Witherbee.....	165	82	Screw, tug.
Foam.....	17	7	Tug.
Ripple.....	13	9	Tug.
Restigouche.....	945	463	Screw, passenger.
Tadousac.....	1,701	1,052	Paddle, passenger.
Etoile.....	560	317	Paddle, passenger.
St. Louis.....	428	270	Paddle, passenger.
Pontiac.....	221	135	Dredge.
Marie.....	31	21	Tug.
Lady Eileen.....	921	526	Twin screw, passenger.
Natashquan.....	991	642	Screw, passenger.
Dick.....	42	26	Paddle, tug.
M. E. Hackett.....	78	53	Screw, tug.
Hope.....	19	7	Screw, tug.
Glengarry.....	732	456	Screw, freight.
Contest.....	231	90	Paddle, passenger.
Two Brothers.....	24	9	Screw, tug.
Bird.....	280	177	Paddle, tug.
Eureka.....	170	19	Screw.
Thor.....	322	204	Paddle, tug.
Amanda.....	11	7	Screw, tug.
May.....	8	5	Screw.
Hero.....	32	22	Screw.
Denisa.....	38	26	Screw.
St. Charles.....	21	16	Screw, tug.
St. Etienne.....	33	26	Screw, tug.
Lucinia.....	32	22	Screw, tug.
Harold.....	7	6	Screw, tug.
Grace.....	4	4	Screw, yacht.
Swallow.....	9	6	Screw, tug.
Ruth.....	9	6	Screw, ferry.
Frances.....	4	4	Screw, pleasure yacht.
Ontaritze.....	18	12	Screw, tug.
Riviere aux Pins.....	Register not complete		Screw, tug.
Marie Josephine.....	117	80	Screw.
Monitor.....	62	39	Screw, tug.
C. S. Parnell.....	17	11	Screw, tug.
Polaris.....	533	336	Screw, ferry.
Johnnie H.....	14	5	Screw, tug.
Kinojani.....	21	14	Screw, tug.
Florence.....	133	90	Screw.
Marie Louise.....			Tug.
Dredge (Govt.).....			Dredge.
Mistassini.....	249	157	Paddle, passenger.

7-8 EDWARD VII., A. 1908

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

QUEBEC DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
Honfleur	19	13	Screw, tug.
St. Henri	101	68	Twin screw, passenger.
Arthur	19	7	Screw, passenger.
Pikoumami	57	36	Stern wheel, freight.
Le Colon	173	107	Paddle, tug.
Nord	56	39	Twin screw, passengsr.
Paribonka	179	113	Paddle, tug.
Roberval	126	71	Paddle, tug.
Victor	35	18	Screw, tug.
Iroquois			Dredge.
Edr. Pyke	124	40	Twin, screw.
E. B. Eddy	78	38	Screw.
Storm King	108	73	Screw, tug.
Alcyon	44	30	Twin screw.
Marie Louise	99	63	Paddle, passenger.
St. Anne	100	62	Paddle, passenger.
Forest	26	18	Screw, tug.
Ariel	11	7	Screw, ferry.
Marie Stella	24	16	Screw, tug.
Pilot	427	269	Screw, ferry.
Deerhound	484	39	Twin screw.
Fraserville	51	36	Twin screw, tug.
Activity	22	15	Screw, tug.
Corinne	23	9	Tug.
King Edward	355	155	Screw, passenger.
Victoria	56	38	Tug.
Total	16,904	9,523	

JOS. SAMSON,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the ninemonths of fiscal year ended March 31, 1907.

QUEBEC, SOREL AND MONTREAL DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Lady of the Lake....	680	July 2..	607	Paddle, pass., Newport and Magog.
Alma.....	10	" 2..	6	Screw, pass., Cedarville and L. Magog.
Pocahontas.....	95	" 3..	56	Screw, pass., Lake Massawippi.
Glenvilla.....	Not issued			
Cacouna.....		July 4..	1,451	Screw, freight, Canadian and foreign port.
St. Peter.....	45	" 4..	44	Screw, pass., Montreal Harbour.
Johnnie H.....	Not issued		14	
Tadoussac.....	450	July 6..	1,701	Paddle, pass., Montreal and Chicoutimi.
Grace.....	10	" 10..	4	Screw, pass., Lake Edward.
Mistassini.....	40	" 11..	249	Paddle, pass., Roberval and Grande Décharge.
Nord.....	17	" 11..	56	Twin screw, pass., Roberval and Peribonka.
Pikouagami.....	Not issued		57	Stern wheel.
Roberval.....	30	July 12..	126	Paddle, pass., Roberval and Peribonka.
St. Henri.....	21	" 12..	101	Twin screw, pass., Roberval and La Pipe.
Ste. Anne.....	35	" 13..	100	Paddle, pass., ferry, Chicoutimi and St. Anne.
Marie Louise.....	18	" 13..	99	Paddle, pass., Saguenay River.
Ariel.....	20	" 13..	11	Screw, pass., Ha Ha Bay.
Forest.....	20	" 13..	26	Screw, pass., Ha Ha Bay.
Chicoutimi.....	290	" 18..	992	Paddle, pass., Montreal and Chicoutimi.
Rutch.....	20	" 19..	9	Screw, pass., Lake St. Joseph.
Frances.....	Not issued	Not reg'd.	4	Screw, gasoline.
Otranto.....	50	July 25..	35	Screw, pass., Montreal and Quebec.
Ruby.....	10	May 16..	11	Screw, pass., Barry's Bay and Havergale.
Chance.....	10	Aug. 2..	5	Screw, pass., Lake Temagami.
Beaver.....	10	" 2..	2	Screw, pass., Lake Temagami.
Spry.....	10	" 2..	2	Screw, pass., Lake Temagami.
Wanda.....	30	" 3..	39	Screw, pass., Lake Temagami.
Helen.....	Not issued	Not reg'd.		
Princess Alice.....	"	"		
Geisha.....	25	Aug. 4..	20	Screw, pass., New Liskeard and Tomstown.
Blanche.....	40	" 4..	30	Screw, pass., Temiskaming and N. Temiskaming.
Temiskaming.....	135	" 4..	295	Screw, pass., Temiskaming and N. Temiskaming.
Jubilee.....	40	" 6..	117	Screw, pass., Temiskaming and N. Temiskaming.
Meteor.....	214	" 7..	299	Screw, pass., Temiskaming and N. Temiskaming.
Vilfe Marie.....	12	" 7..	13	Screw, pass., Temiskaming and New Liskeard.
Clyde.....	25	" 8..	29	Screw, pass., Kippewa and Turtle Portage.
Alice.....	40	" 8..	26	Screw, pass., Kippewa Lake.
Ferdinand.....	40	" 10..	76	Screw, pass., Belœil and St. Antoine.
Fraserville.....	8	" 16..	51	Screw, pass., Rivière du Loup and Quebec.
Bella.....	40	" 17..	43	Paddle, pass., ferry, Campbellton and Cross Point.
Nellie H.....	10	" 19..	10	Screw, pass., Gaspé and Peninsula.
Heward McMaugh..	9	" 25..	43	Screw, pass., St. Thomas and Quebec.
Ojibway.....	400	" 27..	298	Screw, pass., St. John and Burlington.
Leo.....	13	" 28..	2	Screw, pass., Hawkesbury and Grenville.
1906.				
H. Bonenfant.....	10	Nov. 28..	31	Twin screw, pass., ferry, Calumet and L'Orignal.
1907.				
Eva.....	10	Aug. 28..	14	Paddle, pass., ferry, Montebello and Alfred.
Agnes.....	40	" 29..	29	Screw, pass., Buckingham and High Falls.
Mildred.....	25	" 29..	15	Screw, pass., Buckingham and High Falls.
Jubilee.....	26	Sept. 6..	25	Screw, pass., Megantic and Wobun.
Bourgeois.....	40	" 10..	94	Paddle, pass., ferry, Three Rivers and St. Angele.
Pilot.....	450	Oct. 11..	427	Screw, pass., Quebec and Levis.
Queen.....	450	" 12..	367	Screw, pass., Quebec and Levis.
Polaris.....	450	" 13..	533	Screw, pass., Quebec and Levis.
Muriel.....	15	Nov. 5..	54	Screw, pass., St. Catherine and Tadoussac.

PHILIPPE DUCLOS,
Hull Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

QUEBEC, SOREL AND MONTREAL DIVISION—*Continued.*HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1907.		\$ cts.	
Borgestad		July 11..	3,924	.....	Screw, freight, Montreal and Sydney.
Agnar		" 12..	1,567	.....	Screw, freight, Montreal and Sydney.
Atlas		" 23..	1,332	.....	Screw, freight, Montreal and Sydney.
Egholm		" 25..	1,202	.....	Screw, freight, Montreal and Sydney.
Aranmore	160	Aug. 1..	1,170	\$93.60	Screw, pass., Montreal and Sydney.
Minaer		" 11..	1,125	.....	Screw, freight, Montreal and Sydney.

PHILIPPE DUCLOS,

Hull Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906.				
Moto	37	Oct. 30..	15 04	Screw, gasoline, Digby and Bear River.
1907.				
Parrshoro.....		July 12..	56 55	Screw, tug, coasting.
Evelyn.....		" 12..	13 86	Screw, tug, Avon River.
Susie.....		" 12..	26 83	Screw, tug, coasting.
Stratheona.....	100	" 1..	284 09	Screw, passenger, coasting.
Commodore.....		" 26..	12 84	Screw, passenger and lighter, Halifax Harbour.
Gambrinus.....		" 26..	28 63	Screw, lighter, Halifax Harbour.
Islander.....		" 27..	54 44	Screw, tug, coasting.
Alert.....		Aug. 3..	105 39	Screw, tug, coasting.
W. M. Weatherspoon.....		" 3..	59 29	Screw, tug, coasting.
Highland Mary.....		" 9..	73 73	Screw, lighter, Halifax Harbour.
Robbie Burns.....		" 11..	88 95	Screw, lighter, Halifax Harbour.
Eleanor M. Gates.....		" 13..	58 81	Screw, tug, coasting.
Marietta.....		" 13..	7 04	Screw, tug, Mira River.
Vesta.....		" 13..	9 21	Screw, tug, Mira River.
Alameda.....	40	" 13..	62 59	Screw, passenger, Mira River.
Marion.....	395	" 14..	478 49	Screw, passenger, Sydney and Mulgrave.
Sea Bird.....	40	" 14..	41 28	Screw, passenger, coasting.
Liberty.....		" 14..	96 21	Screw, freight, coasting.
Volunda.....	20	" 14..	29 80	Screw, passenger, Sydney and Bras d'Or Lakes.
Nelson.....		" 14..	64 34	Screw, tug, coasting.
Zaidee.....		" 15..	18 63	Screw, water boat, Sydney Harbour.
Gipsy.....		" 15..	16 70	Screw, tug, coasting.
Alexandra.....		" 15..	33 67	Screw, tug, Sydney Harbour.
I. B. Hamblin.....		" 15..	31 71	Screw, fishing, coasting.
Pawnee.....	450	" 15..	106 80	Screw, passenger, Sydney and Bras d'or.
Richmond.....	95	" 17..	132 21	Screw, passenger, Sydney and Mulgrave.
Fred L. M. Paint.....	40	" 17..	88 18	Screw, passenger, Strait of Canso.
Olive.....		" 17..	35 49	Screw, tug, coasting.
John L. Cann.....	105	" 18..	165 55	Screw, passenger, coasting.
Malcolm Cann.....	85	" 18..	211 71	Screw, passenger, coasting.
Water Witch.....		" 21..	90 38	Screw, water boat, Halifax Harbour.
Magdalin.....		" 23..	134 50	Screw, passenger and freight, coasting.
Wasis.....		" 23..	480 47	Screw, freight, foreign.
Atlantic.....		" 29..	98 16	Screw, freight, coasting.
Oneita.....		Sept. 1..	14 96	Screw, fishing, coasting.
Albion.....		" 4..	9 14	Screw, tug, coasting.
Annie.....		" 6..	42 12	Screw, water boat, Halifax Harbour.
Togo.....	45	" 7..	97 31	Screw, tug, coasting.
Senlac.....	290	" 17..	1,010 74	Screw, passenger, coasting.
Anticosti.....		" 3..	19 00	Screw, fishing.
Collector.....		" 2..	52 05	Screw, lighter, Halifax Harbour.
Blue Hill.....	110	Aug. 16..	195 83	Screw, passenger, Baddeck and Bras d'Or Lakes.
Yarmouth.....	450	Oct. 6..	1,451 92	Screw, passenger, foreign.
Westport III.....	35	" 6..	140 01	Screw, passenger, coasting.
Fredde V.....		" 6..	26 69	Screw, tug, coasting.
Bridgewater.....	140	" 26..	207 79	Screw, passenger, coasting.
Mahone.....	39	Nov. 17..	126 70	Screw, passenger, coasting.
La Have.....		" 13..	49 27	Screw, tug, coasting.
Halifax.....	250	" 14..	338 42	Paddle, ferry, Halifax Harbour.
Mersey.....	20	June 25..	41 62	Screw, tug and passenger, Mersey River.
Alpha.....		Dec. 4..	61 20	Screw, tug, coasting.
Rosenary.....		" 12..	41 26	Screw, fishing, coasting.
Ralph E. S.....		Nov. 3..	27 82	Screw, fishing, coasting.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

NOVA SCOTIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1908.		
Defiance		Jan. 21..	37.79	Screw, fishing, coasting.
George L		Feb. 7..	61.06	Screw, tug and passenger, coasting.
Margaret	39	" 28..	194.62	Screw, passenger, coasting.
Lenore		Mar. 30..	15.32	Screw, fishing, coasting.
Robie M		" 30..	66.57	Screw, freight, coasting.
		1907.		
Lady Glover		Sept. 1..	137.51	Screw, fishing, coasting.
Total			7,848.41	

J. P. ESDAILE,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1907.		\$ cts.	
Garibaldi.		July 14. . . .	768 60		Screw, freight, coasting.
Bruce.	290	Aug. 14. . . .	1,154 39	92 40	Screw, passenger, foreign.
Annapolis.	25	Sept. 6. . . .	2,056 93	164 56	" "
Ocamo.	75	" 8. . . .	1,826 54	146 16	" "
St. Andrews.		" 17. . . .	2,991 23		Screw, freight, foreign.
Beta.	75	" 13. . . .	1,086 67	86 96	Screw, passenger, foreign.
Oruro.	150	Aug. 21. . . .	1,919 07	153 52	" "
Orinoco.	140	" 8. . . .	2,686 49	198 88	" "
Pors.		Oct. 26. . . .	579 23		Screw, freight, coasting.
Cimbria.		" 25. . . .	2,872 86		Screw, freight, foreign.
Kathinka.		Nov. 15. . . .	1,162 65		Screw, freight, coasting.
		1905.			
Kenwick.		Jan. 21. . . .	664 18		" "
Lanpar.		Feb. 15. . . .	1,407 49		" "
Dahomey.	25	" 21. . . .	2,854 04	228 32	" "
Total.			23,930 57	1,070 80	

J. P. ESDAILE,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

NOVA SCOTIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Seout.	9 26	4 07	Screw, tug, Pictou Harbour.
Salvor	44 93	34 90	Screw, lighter, Halifax Harbour.
Wobun	1,551 12	990 04	Screw, freight, foreign.
Harlaw.	451 36	266 76	Screw, passenger, coasting.
Dufferin	210 57	98 93	Screw, passenger, coasting.
Anita	26 50	12 12	Screw, freight, coasting.
Wasis	480 47	254 71	Screw, freight, foreign.
Grace	24 18	16 45	Screw, freight, coasting.
F. W. Roebling	161 97	77 77	Screw, tug and passenger, coasting.
Miner	49 06	33 36	Screw, tug and passenger, coasting.
Coban	1,063 30	688 81	Screw, freight, foreign.
Cacouna	1,450 78	930 55	Screw, freight, foreign.
Pioneer	15 27	10 74	Screw, fishing, coasting.
Ruby L.	118 85	49 33	Screw, passenger, coasting.
Prince Albert	126 73	64 36	Screw, passenger, coasting.
La Tour	154 43	98 70	Screw, passenger, coasting.
Wanda	38 48	32 11	Screw, freight, coasting.
Nereid	12 24	8 33	Screw, fishing, coasting.
Edna R.	41 66	24 17	Screw, freight, coasting.
Gertrude M	47 58	25 21	Screw, passenger, coasting.
Percy Cann.	80 06	55 65	Screw, passenger, coasting.
City of Ghent	198 64	119 15	Screw, passenger, coasting.
Amelia	356 54	103 37	Screw, passenger, coasting.
Halifax	1,874 88	1,077 71	Screw, passenger, foreign.
Victoria	67 65	40 21	Screw, tug, coasting.
Arcadia	61 64	41 92	Screw, passenger, coasting.
Hiawatha	49 19	34 36	Screw, passenger, Pictou and Pictou Landing.
May Queen	35 92	17 94	Screw, passenger, Pictou and Pictou Landing.
Mary Jane	25 86	17 58	Screw, freight, coasting.
Bonavista	1,306 33	836 88	Screw, passenger, coasting.
Magdalen	134 59	91 52	Screw, passenger, coasting.
Canada	707 29	443 99	Screw, passenger, coasting.
Iona	54 27	35 01	Screw, tug, coasting.
Weymouth	153 93	96 35	Screw, passenger, coasting.
Fairy	16 06	8 85	Screw, tug, Sydney Harbour.
Gladiator	70 40	36 84	Screw, tug, coasting.
Peerless	94 27	80 90	Screw, passenger, Sydney and North Sydney.
Hygeia	57 69	39 23	Screw, passenger, Sydney and North Sydney.
Marion	478 49	269 27	Screw, passenger, Sydney and Mulgrave.
C. M. Winch	87 72	49 22	Screw, tug, coasting.
Amphitrite	149 45	83 00	Screw, freight, coasting.
A. C. Whitney	62 67	41 06	Screw, tug and passenger, coasting.
Mikado	45 94	29 88	Screw, tug and passenger, Halifax Harbour.
Goliah	146 83	99 85	Screw, tug and passenger, coasting.
Amethyst	1,357 26	871 95	Screw, freight, foreign.
Shannon	75 11	51 07	Screw, freight, coasting.
Louisburg	1,815 60	1,181 35	Screw, freight, foreign.
Kilkeel	252 27	55 97	Screw, freight, coasting.
Chebuco	578 48	184 45	Screw, ferry, Halifax Harbour.
Bessie and Harry	22 49	13 18	Screw, water boat, Halifax Harbour.
Acadia	74 21	66 53	Screw, passenger, Halifax Harbour.
Dartmouth	311 23	196 08	Padd'e, ferry, Halifax Harbour.
Boston	1,694 50	733 77	Screw, passenger, foreign.
Markland	21 92	14 91	Screw, passenger, Yarmouth and Cape Forchu.
Alice Maud	44 84	30 46	Screw, tug, coasting.
Ludovica	16 72	11 37	Screw, fishing, coasting.
Loretta	12 02	8 18	Screw, fishing, coasting.
Dolphin	8 07	3 66	Screw, fishing, coasting.
Marina	32 46	16 29	Screw, tug, coasting.
Juno	9 29	2 21	Screw, passenger, Yarmouth and Bay View.
Island Gem	15 62	10 63	Screw, fishing, coasting.
Highland Mary	73 73	50 17	Screw, lighter, Halifax Harbour.
A. W. Perry	1,601 19	957 30	Screw, passenger, foreign.

SESSIONAL PAPER No. 23a

STEAM Vessels not Inspected for the fiscal year ended March 31, 1907.

NOVA SCOTIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
Avon.....	64.66	41.39	Screw, passenger, Avon River.
Susie.....	26.83	15.74	Screw, tug, coasting.
Falmouth.....	43.03	29.27	Screw, tug, coasting.
Evelyn.....	13.86	9.42	Screw, tug, Avon River.
Evangeline.....	69.18	28.18	Screw, tug and passenger, Windsor and Bay of Fundy.
Diamond.....	22.65	15.41	Screw, tug, coasting.
Parrsboro.....	56.55	26.28	Screw, tug, coasting.
Chester.....	79.50	36.00	Screw, tug, coasting.
Ethel Jean.....	47.06	32.64	Screw, tug, coasting.
Aid.....	98.55	67.02	Screw, tug, coasting.
Vulcan.....	18.40	12.52	Screw, tug, coasting.
Meadow Flower.....	6.56	4.46	Screw, water boat, Canso Harbour.
Star.....	6.07	4.13	Screw, passenger, Wallace Harbour.
Isaac N. Veasey.....	88.96	60.49	Screw, fishing, coasting.
Elsie.....	22.14	15.06	Screw, tug, coasting.
Cygnets.....	11.23	7.64	Screw, fishing, coasting.
Dawson.....	37.25	16.99	Screw, fishing, coasting.
Yuba.....	12.04	6.01	Screw, passenger, Barrington and Cape Sable Island.
Merimac.....	85.80	26.13	Screw, passenger and tug, coasting.
Trusty.....	57.60	32.76	Screw, passenger and tug, La Have River.
Inverness.....	66.98	45.55	Screw, passenger, coasting.
Mable K.....	15.20	10.34	Screw, fishing, coasting.
D. H. Thomas.....	211.91	144.10	Screw, passenger and tug, coasting.
Maggie.....	19.26	13.10	Screw, passenger, Lunenburg and South Shore.
Millie K.....	19.85	7.19	Screw, tug, coasting.
Total.....	21,610.18	13,542.25	

J. P. ESDAILE,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

NOVA SCOTIA DIVISION—Continued.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1906.		
Moto.	37	Oct. 30....	15'04	Screw, gasoline, Digby and Bear River.
		1907.		
Strathcona.	100	July 17 ...	284'09	Screw, pass., coasting.
Commodore.	30	" 26....	12'84	Screw, pass. and lighter, Halifax Harbour.
Alameda.	40	Aug. 13....	62'59	Screw, pass., Mira River.
Sea Bird.	40	" 14....	41'28	Screw, pass., coasting.
Marion.	395	" 14....	478'49	Screw, pass., Sydney and Mulgrave.
Pawnee.	450	" 14....	106'80	Screw, pass., Sydney and Bras d'Or Lakes.
Volunda.	20	" 15....	29'80	Screw, pass. " "
Richmond.	95	" 15....	162'30	Screw, pass., Sydney and Mulgrave.
Blue Hill.	110	" 16....	195'83	Screw, pass., Baddeck and Bras d'Or.
Malcolm Cann.	85	" 16....	211'81	Screw, pass., coasting.
F. L. M. Paint.	40	" 17....	88'16	Screw, pass., Strait of Canso.
John L. Cann.	105	" 17....	165'55	Screw, pass., coasting.
Wasis.		" 23....	480'47	Screw, freight, foreign.
Togo.	45	Sept. 7....	97'31	Screw, tug, coasting.
Senlac.	290	" 17....	1,010'74	Screw, pass., coasting.
Yarmouth.	450	Oct. 6....	1,451'92	Screw, pass., foreign.
Westport III.	35	" 8....	140'01	Screw, pass., coasting.
Bridgewater.	140	" 26....	207'79	" "
Mahone.	39	Nov. 17....	127'70	" "
Halifax.	250	" 14....	338'42	Paddle, ferry, Halifax Harbour.
Margaret.	39	Feb. 28...	194'62	" "

S. R. HILL,
Hull Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

NOVA SCOTIA DIVISION—Continued.

HULL INSPECTION—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1907.		\$ cts.	
Garibaldi.....		July 14....	768·60		Screw, freight, coasting.
Bruce ...	290	Aug. 14....	1,154·69	92 40	Screw, pass., foreign.
Annapolis.....	25	Sept. 1....	2,056·93	164 56	" "
Dahomey.....	25	Feb. 21....	2,854·04	228 32	" "
Ocamo.....	75	Sept. 8....	1,826·54	146 16	" "
St. Andrews.....		" 17....	2,991·23		Screw, freight, foreign.
Beta.....	75	" 13....	1,086·67	86 96	Screw, pass. "
Oruro.....	150	Aug. 21....	1,919·07	153 52	" "
Orinoca.....	140	" 8....	2,486·49	198 88	" "
Cimbria.....		Oct. 25....	2,872·86		Screw, freight "
Pors.....		" 26....	579·23		" coasting.
Kathinka.....		Nov. 13....	1,162·65		" "
		1908.			
Renwick.....		Jan. 19....	664·18		" "
Lanpar.....		Feb. 15....	1,407·49		" foreign.
		1907.			
Vinland.....		Dec. 29....	1,227·70		" "

S. R. HILL,
Hull Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907				
Ludlow.....	493	June 25..	534·01	Screw, ferry, St. John Harbour.
Beaver.....	20	" 12..	84·75	Screw, freight and passenger, coasting.
R. R. Call.....	28	July 7..	23·16	Screw, tug and passenger, Miramichi River.
Jubilee.....		" 7..	16·52	Screw, tug, Miramichi River.
Wm. M.....		" 7..	29·11	Screw, tug, Miramichi River.
Bridgetown.....		" 7..	14·66	Screw, tug, Miramichi River.
St. George.....	156	" 7..	277·78	Paddle, passenger, Miramichi River.
Success.....		" 7..	20·54	Paddle, tug, Miramichi River.
Edith.....		" 9..	21·55	Screw, tug, Miramichi River.
Sarcella.....		" 9..	21·86	Screw, tug, Miramichi River.
Mary Odell.....	23	" 9..	28·92	Screw, tug, Miramichi River.
Sybella H.....	37	" 9..	70·68	Paddle, ferry, Miramichi River.
James Neilson.....		" 9..	30·50	Screw, tug, Miramichi River.
St. Kilda.....		" 9..	55·64	Paddle, tug, Miramichi River.
St. Isidore.....		" 9..	141·75	Paddle, tug, Miramichi River.
Mascott.....		" 9..	70·50	Screw, tug, Miramichi River.
St. Andrew.....		" 10..	76·64	Screw, tug, Miramichi River.
Alexandra.....	396	" 10..	200·72	Screw, passenger, Miramichi River.
St. Nicholas.....	75	" 11..	62·20	Screw, passenger, Miramichi River.
Gray Loggie.....		" 7..	99·20	Screw, freight, coasting.
David Ritchie.....		" 11..	25·27	Screw, tug, Miramichi River.
Bessie.....		" 12..	5·18	Screw, fish boat, Miramichi River.
Lady Dufferin.....		" 12..	47·48	Paddle, ferry, Miramichi River.
Laura.....		" 12..	13·55	Screw, tug, Miramichi River.
Irene.....		" 12..	10·29	Screw, tug, Miramichi River.
Loyalist.....		" 12..	17·57	Paddle, tug, Miramichi River.
Rustler.....		" 12..	101·54	Paddle, passenger, Miramichi River.
Marshall W.....		" 12..	5·52	Screw, tug, Miramichi River.
Miramichi.....		" 9..	75·18	Screw, passengers, Miramichi River.
St. Lawrence.....		" 14..	50·82	Screw, tug, coasting.
Nyanza.....		" 14..	83·21	Screw, tug, coasting.
Barriboola Gha.....		" 16..	95·77	Paddle, tug, Restigouche River.
Wenola.....		" 16..	25·10	Screw, tug, Restigouche River.
Henrietta.....		" 16..	19·12	Screw, tug, Restigouche River.
Bruce.....		" 16..	55·70	Screw, tug, Restigouche River.
Florence.....	17	" 18..	19·33	Paddle, passenger, Restigouche River.
Victor.....		" 18..	45·51	Paddle, tug, Restigouche River.
St. Lawrence.....		" 26..		Dredge, Pictou Harbour.
Premier.....		" 7..	8·70	Screw, tug, Miramichi River.
Lord Kitchener.....		Aug. 4..	161·24	Screw, passenger, coasting.
Mildred.....		" 4..	40·11	Screw, tug, coasting.
Lolita.....		" 10..	14·36	Screw, yacht, St. John River.
Bessie Ardella.....		" 13..	17·42	Screw, tug, coasting.
Viking.....		" 15..	127·70	Screw, passenger, St. Croix River.
Waring.....		" 17..	28·74	Screw, tug, St. John River.
Admiral Togo (gasoline).....	20	" 28..	5·44	Screw, ferry, Hillsborough River.
Kathleen.....		Sept. 4..	6·01	Screw, yacht, St. John River.
Lord Roberts.....		" 4..	55·98	Screw, tug and passenger, coasting.
Flushing.....		" 11..	177·65	Screw, tug and passenger, coasting.
Powerful.....		" 8..	29·34	Paddle, tug, Richibucto River.
Comet.....		" 8..	26·85	Paddle, tug, Richibucto River.
Alice.....		" 9..	15·77	Screw, tug, Buctouche River.
Marion.....		Not issued.	13·74	Paddle, tug, Buctouche River.
E. Ross.....		Sept. 21..	29·63	Screw, ferry, St. John to Lancaster

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1906				
Mikado		Dec. 30.	80.09	Screw, passenger, coasting.
1907				
Vacuna		Sept. 28	9.52	Screw, yacht, Schoodie Lakes.
Beryl Essie		Sept. 27	23.83	Screw, tug, coasting.
Prince Edward		Oct. 10		Dredge Charlottetown Harbour.
Hillsborough		Oct. 10	238.67	Paddle, ferry, Charlottetown Harbour.
Zuleika		Oct. 13	15.87	Screw, yacht, St. John River.
Aberdeen		Oct. 22	243.86	Stern, wheel passenger, St. John River.
Clymene		Oct. 24	10.39	Screw, yacht, St. John River.
Bear River		Oct. 26	103.86	Screw, freight, coastwise.
Onangondy		Nov. 10	294.75	Paddle, ferry, St. John Harbour.
Aurora		Oct. 16	364.24	Screw, passenger, coasting.
Mikado		Sept. 26	80.09	Screw, passenger, coasting.
Kingsville		Oct. 25	36.59	Screw, tug, St. John River.
1908				
Maggie M.		Mar. 19	65.78	Screw, passenger and tug, coasting.
Hercules		Mar. 20	87.11	Screw, tug, St. John River.
May Queen		Mar. 20	539.40	Paddle, passenger, St. John River.
New Brunswick		Mar. 22		Dredge.
Majestic		Mar. 22	274.63	Screw, passenger, St. John River.
Leader		April 29	29.32	Screw, tug, St. John River.
Western Extension		April 1	424.89	Paddle, ferry, St. John Harbour.
Springfield		Mar. 30	232.73	Stern wheel, passenger, St. John River.
Crystal Stream		Mar. 30	482.05	Paddle, passenger, St. John River.
Total			7,017.16	

C. E. DALTON,
Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected in Canada but Registered elsewhere for the nine months of fiscal year ended March 31, 1907.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1907.		
Huron.....	507	Aug. 13..	3,318·00	Screw, passenger, coasting.
Lubec.....	125	June 8..	50·94	Screw, ferry, Passamaquoddy Bay.
Penobscot.....	600	" 7..	1,414·02	Paddle, passenger, coasting.
Eastport.....	150	Aug. 23..	2,564·29	Screw, ferry, Passamaquoddy Bay.
Governor Cobb.....	525	Oct. 22..	2,522·15	3 screws, turbine, coasting.
Renwick.....		June 4..	664·00	Screw, freight, coasting.
Stiklestad.....		Mar. 25..	1,777·98	Screw, freight, coasting.
Total.....			9,812·18	

C. E. DALTON,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels not Inspected for the nine months of fiscal year ended March 31, 1907.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Winonah	9.02	6.13	Screw, yacht, inspected in July.
Arthur	4.99	3.40	" " " "
Atlas	15.79	10.74	Screw, tug, laid up.
Dream	44.51	30.27	Screw, yacht, not inspected.
Ben Hur	13.84	9.41	Screw, yacht, gasoline motor installed.
Calluna	22.26	15.14	Screw, tug, to be inspected.
Springhill	189.05	95.70	" " "
Rona	70.05	42.47	" " "
Kilkeel	252.27	55.97	Screw, freight, not applied for.
Wanda	38.48	32.11	Screw, passenger, out of district.
Dawn	5.01	3.41	Screw, yacht, not yet inspected.
Lady Eileen	920.72	526.35	Twin screw, passenger, inspected at Quebec.
Pokanoket	489.63	332.30	Twin screw, passenger, out of district.
Bismarck	49.04	10.44	Paddle, tug, hull condemned.
Cacouna	1,450.78	930.55	Screw, freight, not applied for.
Elfin	122.42	34.23	Paddle, ferry, burned.
Sciouda	77.60	52.77	Screw, yacht, not applied for.
Eva	18.01	12.25	Screw, tug, to be inspected.
Neptune	71.15	48.38	" " "
Quiddy	30.59	19.27	Paddle, tug, " "
Tangent	35.74	24.30	Twin screw, tug, " "
Lord Wolseley	72.91	49.63	Screw, tug, " "
Hudson	35.59	22.84	Screw, yacht, " "
Hope	305.77	161.61	Paddle, tug, waiting for boiler.
Gracie Bell	10.50	7.16	Screw, yacht, not applied for.
Gipsy	16.70	11.37	Screw, tug, " "
Squirrel	13.11	8.97	" " "
Nautilus	26.58	18.07	Screw, yacht, not yet inspected.
Scout	9.26	4.07	Screw, tug, out of district.
Campobello	39.81	20.87	Screw, passenger, not applied for.
Penobscot	1,414.02	1,244.00	Paddle, passenger, " "
Wm. H. Murray	74.89	50.93	Screw, tug, not yet inspected.
Serena E.	24.94	16.96	" " "
Northumberland	1,255.46	579.09	Twin screw, passenger, " "
Empress	1,341.71	612.12	" " "
Elaine	272.08	156.25	Screw, passenger, " "
Nereid	30.03	20.42	Screw, tug, " "
Champlain	392.46	266.87	Screw, passenger, " "
Hero	127.63	80.51	Paddle, tug, " "
Fred Glasier	10.39	7.07	Screw, tug, " "
Helen Glasier	12.00	8.16	" " "
Victoria	1,001.93	631.22	Paddle, passenger, " "
Admiral	158.20	92.67	Paddle, tug, " "
Champion	190.14	119.79	" " "
Lilly Glasier	209.31	131.87	" " "
Captain	68.43	21.17	Screw, tug, " "
Sea King	128.63	87.47	" " "
Lillie	71.64	48.72	Screw, passenger, " "
Fannie	34.05	23.15	Screw, tug, " "
Clayton	42.62	23.84	" " "
Clare	88.02	59.65	Screw, wrecker, " "
Hampstead	234.52	159.47	Screw, passenger, " "
Joseph	53.75	36.55	Screw, tug, " "
Martello	33.65	22.88	" " "
Harbinger	108.50	46.19	Screw, freight, " "
Wilfrid C.	99.26	48.24	Screw, passenger, " "
Hampton	182.88	115.25	Sternwheel, passenger, " "
Smith Brothers	13.44	9.14	Screw, tug, passenger, " "
Maggie Miller	104.66	65.94	Paddle, ferry, passenger, " "
Winnie	12.46	9.26	Screw, tug, " "
Beaver	84.73	42.70	Screw, passenger, " "
Daniel	28.81	19.60	Screw, tug, " "

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—*Continued.*BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage	Remarks. — Why not Inspected and Class of Vessel.
G. D. Hunter	67.97	13.09	Screw, tug, not yet inspected.
Judge Moore	36.44	24.71	Screw, tug, "
City of London	515.77	293.98	Screw, passenger, "
Fred M. Batt.	59.90	38.34	Screw, tug, "
Islander	54.44	24.71	Screw, tug, "
T. A. Stewart	35.94	24.59	Twin screw, tug, "
Wm. Aitken	74.87	51.19	Screw, passenger, "
Electra	106.96	78.04	Screw, passenger, "
Montague	129.55	37.94	Paddle, ferry, "
Arbutus	46.76	31.80	Screw, ferry, "
James Holly	31.21	21.22	Screw, tug, "
Frederick A.	31.11	21.15	Screw, tug, "
Christina	57.07	35.95	Paddle, tug, "
Irene	10.29	7.02	Screw, tug, "
Loyalist	17.57	11.07	Paddle, tug, "
Help	146.14	90.04	Screw, tug, "
G. K. King	45.48	30.93	Screw, tug, "
Alice	15.77	10.72	Screw, tug, "
Togo	50.54	31.85	Paddle, tug, "
Randolph	8.71	5.92	Screw, tug, "
Peri	11.77	8.00	Screw, tug, "
Annie Carrier	10.56	7.18	Screw, tug, "
Farchon	110.61	69.68	Paddle, passenger, "
Ada	3.66	2.49	Screw, yacht, "
Latona	22.66	15.42	Twin screw, tug, "
Ernest	12.58	8.55	Screw, tug, "
Eva Johnson	15.77	6.67	Screw, tug, "
Allan Sewell	11.59	7.88	Screw, tug, "
Brunswick	184.27	72.72	Screw, passenger, "
Enterprise	210.57	98.27	Screw, passenger, "
Dirigo	70.13	47.69	Screw, passenger, "
Total	15,011.89	8,950.60	

C. E. DALTON,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

HULL INSPECTION.

Number of Vessels.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Ludlow	493	June 25...	534.01	Screw, ferry, St. John.
Beaver	20	" 12...	84.75	Screw, passenger, St. John.
Alexandra	400	July 10...	200.72	Screw, passenger, Miramichi River.
Sybella H.	40	" 9...	70.65	Paddle, ferry, Miramichi River.
St. George	171	" 7...	277.76	Paddle, passenger, Miramichi River.
R. R. Call	28	" 7...	23.16	Screw, passenger, Miramichi River.
Mary O'Dell	23	" 9...	28.92	Screw, passenger, Miramichi River.
Miramichi	B 190 R 200	" 9...	75.18	Screw, passenger, Miramichi River.
James Neilson	Not issued	" 9...	30.50	Screw, certificate not issued.
St. Nicholas	75	" 11...	62.20	Screw, passenger, Miramichi River.
Edith	25	" 9...	21.55	Screw, passenger, Miramichi River.
Lady Dufferin	40	" 12...	17.48	Paddle, ferry, Miramichi River.
Rustler	176	" 13...	101.54	Paddle, passenger, Miramichi River.
Nyanza		" 14...	83.21	Screw, passenger, Bathurst.
Florence	17	" 16...	19.33	Screw, passenger, Campbellton.
Lord Kitchener	C 40 R 192	Aug. 4...	161.24	Screw, passenger, St. John River.
Maggie M.	40	Mar. 21...	65.78	Screw, passenger, St. John River.
Viking	158	Aug. 15...	127.79	Screw, passenger, St. Croix River.
Vivian C. (barge)	125	" 24...	58.00	In tow, passenger, St. John River.
Admiral Togo	18	" 28...	5.44	Screw, passenger, Hopewell Cape.
Lord Roberts	40	Sept. 4...	55.98	Screw, passenger, St. John River.
Flushing	125	" 11...	177.65	Screw, passenger, St. John River.
E. Ross	38	" 21...	29.63	Screw, ferry, St. John River.
1906.				
Mikado	53	Dec. 30...	80.09	Screw, passenger, St. John River.
1907.				
Hillsborough	261	Oct. 10...	228.67	Screw, ferry, Charlottetown, P. E. I.
Aberdeen	187	" 22...	240.86	Stern wheel, passenger, St. John.
Aurora	256	" 19...	364.24	Screw, passenger, St. John.
Mikado	53	Sept. 26...	80.00	Screw, passenger, St. John.
Dirigo	40	" 2...	70.13	Screw, passenger, St. John.
Onangondy	235	Nov. 18...	294.75	Paddle, ferry, St. John.
1908.				
Maggie M.	40	Mar. 19...	65.75	Screw, passenger, St. John.

I. J. OLIVE,
Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of the fiscal year ended March 31, 1907.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION—*Continued.*HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
		1906.		
Huron.	507	Aug. 24 . . .	3,318·00	Screw, passenger, St. John and Boston.
		1907.		
Lubec.	128	June 8. . . .	50·94	Screw, passenger, Passamaquoddy Bay.
Huron.	507	Aug. 15. . . .	3,318·00	Screw, passenger, St. John and Boston.
Penobscot	600	June 7. . . .	1,414·02	Paddle, passenger, St. John and Boston.
Eastport	203	Aug. 23. . . .	64·29	Screw, passenger, Passamaquoddy Bay
Governor Cobb.	525	Oct. 22. . . .	2,522·15	Turbine, passenger, St. John and Boston.
		1907.		
Renwick.		Dec. 13. . . .	664·00	Screw, freight, coastwise.
		1908.		
Stikelstad.		Mar. 25. . . .	1,777·98	Screw, freight, coastwise.

I. J. OLIVE,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Kuskanook.....	300	July 4.	1,008.19	Stern wheel, freight and passenger, Kootenay Lake.
Nelson.....	25	" 6.	496.01	" " " "
Ymir.....	"	" 6.	69.74	Screw, tug, Kootenay Lake.
Konkancee.....	200	" 7.	347.50	Stern wheel, freight and passenger, Kootenay Lake.
Kaslo.....	300	" 7.	761.77	" " " "
Valhalla.....	30	" 9.	153.23	Screw, " " "
Moyie.....	250	" 6.	834.81	Stern wheel, " " "
Enterprise.....	"	" 9.	20.00	Screw, tug, Kootenay Lake.
Idler.....	"	" 9.	3.88	" " " "
Pilot.....	"	" 9.	7.80	" " " "
Hercules.....	40	" 10.	64.68	" " " "
Argenta.....	40	" 10.	206.32	Stern wheel, freight and passenger, Kootenay Lake.
International.....	300	" 10.	525.55	" " " "
Vixen.....	"	" 10.	7.46	Screw, yacht, Kootenay Lake.
Sandon.....	50	" 11.	96.22	" freight and passenger, Slocan Lake.
Arrow.....	"	" 11.	4.50	" tug, Slocan Lake.
Sinuggler.....	"	" 12.	15.97	" " Columbia River.
Yale.....	"	" 12.	36.28	" " " "
Irene.....	"	" 12.	28.95	" " " "
Kootenay.....	300	" 13.	1,117.09	Stern wheel, freight and passenger, Columbia River.
Columbia.....	"	" 13.	49.84	Screw, tug, Columbia river.
Minto.....	200	" 14.	828.91	Stern wheel, freight and passenger, Columbia River.
Rossland.....	300	" 14.	883.55	" " " "
Adam Hall.....	"	" 14.	144.61	Twin screw, tug, Columbia River.
Geo. F. Piper.....	40	" 14.	70.15	Screw, freight and passenger, Columbia River.
Blonde.....	"	" 14.	32.64	" tug, Columbia River.
Archer.....	"	" 15.	15.32	" " " "
Lardo.....	"	" 15.	9.60	" " " "
Proctor.....	30	" 16.	43.12	" freight and passenger, Trout lake.
Revelstoke.....	70	" 17.	308.55	Stern wheel, freight and passenger, Columbia River.
Pert.....	"	" 19.	6.44	Tug boat, Upper Columbia river.
Selkirk.....	"	" 20.	58.49	Yacht, Upper Columbia river.
Ptarmigan.....	70	" 21.	246.45	Stern wheel, freight and passenger, Columbia River.
Aberdeen.....	200	" 25.	554.04	" " Okanagan Lake.
York.....	70	" 26.	134.00	Twin screw, " " "
Maude Moore.....	"	" 26.	8.64	Screw, yacht, Okanagan Lake.
Florence Carlin.....	"	" 23.	143.15	Stern wheel, tug, Shuswap Lake.
Maude Annis.....	"	" 23.	22.54	Screw, tug, Shuswap Lake.
Ethel Ross.....	"	" 24.	82.05	Stern wheel, tug, Thompson River.
Riffle.....	"	" 24.	36.62	" " " "
Tees.....	175	Aug. 7.	679.15	Screw, freight and passenger, coasting, B.C.
M. S. Dollar.....	"	" 8.	4,216.13	" B.C. ports and China.
Orion.....	"	" 9.	108.79	" B.C. coast, whaling.
Dominion.....	"	" 13.	17.58	" tug, inland coasting.
Surrey.....	350	" 14.	263.26	Paddle, ferry, Burrard Inlet.
Joan.....	500	" 15.	821.21	Twin screw, freight and passenger, coasting, B.C.
Thistle.....	75	" 21.	838.99	Screw, " " "
Beaver.....	300	" 24.	545.44	Stern wheel, freight and passenger, Fraser River.
Tasmanian.....	20	" 27.	21.10	Twin screw, passenger, Alberni Canal.
Hope.....	12	Sept. 5.	78.49	Screw, tug, coasting, B.C.
Takara Maru.....	12	" 11.	30.32	" " " "
Queen City.....	100	" 21.	391.21	" freight and passenger, coasting, B.C.
Salvor.....	"	Aug. 24.	886.89	" salvage, coasting, B.C.
Lyackson.....	"	Oct. 9.	21.93	" tug, " "
Charmer.....	500	" 12.	1,044.41	" freight and passenger, coasting, B.C.
Mist.....	30	" 16.	28.68	" ferry, Nanaimo Harbour.
Rainbow Tow Barge.....	300	" 16.	54.31	" " " "
Princess Beatrice.....	350	Nov. 7.	1,289.51	" freight and passenger, coasting, B.C.
Bessie Dollar.....	"	" 20.	4,329.19	" B.C. ports and China.
Ranger.....	"	" 23.	53.20	" tug, coasting, B.C.
Maude.....	"	Dec. 5.	174.99	" freight, " "

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1908.				
J. L. Card.....		Jan. 2..	141.06	Twin screw, freight, coasting, B.C.
Fern.....		" 4..	23.60	Screw, tug, coasting, B.C.
Venture.....	305	" 8..	812.45	Twin screw, freight and passenger, coasting, B.C.
Sadie.....	12	" 7..	49.30	Screw, tug, coasting, B.C.
Queen City (Tug).....		" 8..	67.31	" " "
Otter.....	70	" 21..	365.97	" freight and passenger, coasting, B.C.
Albion.....		" 7..	88.11	" tug, coasting, B.C.
Flossie.....		" 30..	4.64	" " "
Edith.....		Feb. 4..	41.87	" " "
Alert.....	35	Jan. 24..	43.81	" " Nanaimo Harbour.
Lorne.....	20	Feb. 13..	287.96	" " coasting, B.C.
Pilot.....	22	" 15..	279.05	" " "
Bute.....		" 27..	48.86	" " "
Total.....			27,785.99	

J. A. THOMSON,

Steamboat Inspector.

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
1907.					
Princess Victoria....	1,000	Aug. 10..	1,943.22	155.44	Twin screw, fr. and pass., coast, B.C.
Ramona.....	172	July 20..	1,061.39	.....	Screw, fr. and pass., B.C. and foreign.
Canosun.....	233	June 28..	1,369.22	169.52	Screw, freight and passenger, B.C. ports.
Whatecom.....	200	Jan. 13..	716.00	.....	Screw, fr. & pass., B.C. ports & foreign.
Wailade.....	150	Apr. 11..	342.59	.....	Screw, freight and passenger, foreign.
Indianapolis.....	300	Mar. 25..	765.30	.....	Screw, freight and passenger, foreign.
Total.....			6,197.72	264.96	

J. A. THOMSON,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels not Inspected for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA DIVISION—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Why not Inspected and Class of Vessel.
Trader	167.18	113.69	} To be inspected later.
Mt. Royal	471.03	295.90	
R. P. Rithet	816.69	686.16	
Iroquois	195.49	94.38	
Edna Grace	42.00	22.00	
Nidge	57.91	59.38	
Daisy	60.10	40.87	
Selkirk	141.63	86.47	
City of Nanaimo	761.37	517.74	
Okanagan	1,077.78	679.01	
Amur	907.17	570.17	
Belle	66.62	45.30	
Princess May	1,717.00	891.74	
Shamrock	23.83	14.00	
Flirt	3.58	1.73	} No application.
Forager	89.57	57.31	
Maple Leaf	8.84	4.58	
Albert Lea	18.67	12.89	
Patsy	6.99	4.76	
Total	6,633.45	4,178.08	

J. A. THOMSON,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA AND YUKON DIVISION.

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Flyer.....		July 1..	48	Screw, tug, coasting.
Bermuda.....		Mar. 1..	72	" "
Belfast.....		June 1..	105	" "
Gypsy.....		July 5..	27	" "
Rambler.....		" 5..	15	" "
Linda.....		Jan. 4..	37	" "
Fraser.....		July 11..	36	" "
Constance.....		" 12..	23	" "
Dolphin.....	12	" 12..	20	" "
Beaver.....	40	" 12..	20	Screw, passenger, coasting.
Dorothy.....		June 14..	20	Screw, tug, coasting.
Chinook.....		" 16..	34	" "
Sonoma.....	40	" 16..	19	Screw, passenger, coasting.
Sea Foam.....	60	July 16..	17	" "
Favorite.....		" 17..	25	Screw, tug, coasting.
Columbia.....	175	Aug. 1..	716	Stern wheel, freight and passenger, Yukon R.
Bonanza King.....	60	" 1..	466	" " " "
Selkirk.....	175	" 2..	777	" " " "
Victorian.....	175	" 5..	716	" " " "
Dawson.....	175	" 6..	779	" " " "
White Horse.....	175	" 8..	987	" " " "
Olive May.....		" 9..	85	Stern wheel, freight, Yukon R.
Prospector.....	150	" 10..	263	Stern wheel, freight and passenger, Yukon R.
Tyrrell.....	150	" 11..	678	" " " "
Casca.....	150	" 14..	590	" " " "
Lightning.....	60	" 17..	557	" " " "
Canadian.....	175	Sept. 3..	716	" " " "
Mabel F.....	20	" 3..	10	Stern wheel, freight and passenger, Taku Arm.
Scotia.....	100	" 4..	214	Stern wheel, freight and passenger, Atlin Lake.
Gleaner.....	150	" 4..	241	Stern wheel, freight and passenger, Taku Arm.
Thistle.....	130	" 3..	225	Stern wheel, freight and passenger, Yukon River.
La France.....	130	" 5..	201	" " " "
Quick.....	30	" 5..	67	" " " "
Coutli.....		" 10..	99	Screw, tug, coasting.
Clarence.....		" 14..	13	" "
McCulloch.....		" 19..	39	" "
Naiade.....	30	" 20..	19	Screw, passenger, coasting.
Stella.....		" 21..	16	Screw, tug, coasting.
Eva.....		" 26..	40	" "
Clayburn.....	12	June 8..	76	" "
Horseshoe.....		Oct. 3..	18	" "
Albatross.....		" 8..	38	" "
Restless.....		" 9..	74	" "
Winneta.....		" 10..	24	" "
New Era.....	20	" 16..	56	Screw, freight and passenger, coasting.
Sarah M. Renton.....	15	" 24..	147	Screw, tug, coasting.
Cassiar.....	300	" 25..	597	Screw, freight and passenger, coasting.
Thames.....	12	" 17..	20	Screw, tug, coasting.
Squid.....		Nov. 3..	60	Screw, fishing, coasting.
Elsie.....		" 1..	13	Screw, tug, coasting.
Pender.....		Oct. 25..	16	" "
Progressive.....		Nov. 5..	88	" "
Fingal.....		" 1..	91	Screw, freight, coasting.
Clansman.....		" 1..	72	" "
Kildonan.....		" 2..	51	Screw, tug, coasting.
Topaz.....	12	" 12..	34	" "
Stuffa.....		" 1..	51	Screw, freight, coasting.
Clarence.....		" 14..	13	Screw, tug, coasting.
J. E. Boyden.....		" 20..	122	" "
Mystery.....		" 27..	65	" "
Shamrock.....	12	Dec. 3..	90	" "
Ramona.....	175	" 3..	251	" "

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA AND YUKON DIVISION—Continued.

BOILERS, MACHINERY AND HULL INSPECTION—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
Mowitz		Dec. 7..	49	Screw, tug, coasting.
Storm King		" 8..	99	" " "
Tillicum		" 14..	14	" " "
Vesta	10	" 15..	12	" " "
Comox	60	" 20..	101	" " "
Delta		" 26..	15	" " "
Favorite	100	Jan. 4..	257	Stern wheel, freight and passenger, Fraser River.
Etta White		" 4..	97	Screw, tug, coasting.
Transfer	120	" 11..	264	Stern wheel, freight and passenger, Fraser River.
Vulcan		" 18..	77	Screw, tug, coasting.
Brunette		" 18..	37	" " "
Active		" 28..	172	" " "
Maple Leaf		Feb. 1..	40	" " "
Gypsy		" 6..	10	" " "
Brant		" 9..	19	" " "
Britannia	300	" 12..	326	Screw, freight and passenger, coasting.
Burt		" 14..	50	Screw, tug, coasting.
Defiance	39	" 16..	90	Screw, freight and passenger, coasting.
Greenwood		" 23..	23	Screw, tug, coasting.
Capilano	25	" 20..	231	Screw, freight and passenger, coasting.
Coquitlam	75	" 28..	256	" " " "
Vigilant		" 28..	29	Screw, tug, coasting.
Lily		Mar. 1..	7	" " "
Firefly		" 12..	46	Stern wheel, tug, Fraser River.
Clutha		" 12..	28	Screw, tug, coasting.
Linda		" 12..	39	" " "
Orillia		" 12..	12	" " "
Tepic	11	" 14..	71	" " "
Oscar		" 22..	95	Screw, freight, coasting.
Cascade		" 24..	119	" " "
Stranger		" 26..	21	Screw, tug, coasting.
Phoenix	20	" 26..	87	" " "
Belcarra	225	" 27..	253	Screw, freight and passenger, coasting.
Claxton		" 27..	84	Screw, fishing, coasting.
Nagasaki		" 27..	15	Screw, tug, coasting.
Total			14,244	

F. M. RICHARDSON,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected in Canada but Registered elsewhere, for nine months
of fiscal year ended March 31, 1907.

BRITISH COLUMBIA AND YUKON DIVISION—*Continued.*BOILERS, MACHINERY AND HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passen- gers. Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1907.		\$ cts.	
Seattle No. 3.	175	July 10..	548	.....	Stern wheel, freight and passenger, Yukon River.
Lavelle Young	100	" 10..	506	40 48	" " "
T. C. Powers	170	" 10..	820	65 60	" " "
Monarch	164	" 10..	463	37 04	" " "
Hannah	275	" 10..	1,211	96 88	" " "
Haldis. ....	.....	Mar. 23..	1,700	.....	Screw, freight, coasting.
Total .....	.....	.....	6,617	240 00	

F. M. RICHARDSON,
Steamboat Inspector.

STEAM Vessels not Inspected for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA AND YUKON DIVISION—*Concluded.*BOILERS, MACHINERY AND HULL INSPECTION—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Robert Kerr.	1,123	.....	Coal hulk, no application.
Iris	38	24	Screw, tug, "
Jessie Mac.	57	39	" " "
Trobadour.	18	12	" " "
Lora	8	5	" " "
Sendai	14	10	" " "
Dauntless.	128	89	" " "
Winnifred.	13	8	" " "
Evolvo	13	9	" " "
Clive	35	24	" " "
Clara Young.	31	21	" " "
Tyce	32	18	" " "
Hope	26	18	Screw, tug, out of reach.
Sea Lion.	6	4	" " "
Olive	71	45	Stern wheel, tug, "
On Time.	11	4	Screw, tug, "
Starling	7	5	" " "
Uno	12	8	" " "
Leonora	33	18	" " "
Milkmaid	7	5	" " "
Hubert.	6	4	" " "
Chinook	34	23	" " "
Kootenay.	8	5	" " "
Daisy	13	9	" " "
Total.	1,644	307	

F. M. RICHARDSON,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Maude		Dec. 27..	174.99	Freight, B.C. coast.
Sadie	12	Jan. 7..	49.30	Tug and pass., B.C. coast.
Venture	305	" 8..	812.45	Freight and pass., "
Transfer	120	" 11..	264.16	" Fraser River.
Active	18	" 11..	171.74	" B.C. ports.
Comox	60	" 12..	101.17	" "
Favorite	100	" 14..	256.58	" Fraser River.
Otter	70	" 20..	365.97	" B.C. ports.
Alert	35	" 29..	43.81	Tug and pass., Nanaimo.
Britannia	300	Feb. 10..	325.94	Freight and pass., B.C. ports.
Lorne	20	" 13..	287.96	Tug and pass., "
Coquitlam	78	" 14..	256.33	Freight and pass., "
Defiance	39	" 15..	89.88	" "
Pilot	22	" 15..	279.05	" "
Capilano	76	" 16..	231.14	" "
Czar	30	" 17..	152.18	Tug and pass., "
Tepic	15	Mar. 14	70.87	" "
Phoenix	20	" 26..	87.18	" "
Belcarra	230	" 27..	252.64	Freight and pass., "
Total			4,273.34	

J. C. KINGHORN,
Hull Inspector.

STEAM Vessels Inspected in Canada but Registered elsewhere, for the nine months of fiscal year ended March 31, 1907.

BRITISH COLUMBIA DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Whatcom	200	Jan. 13..	716	Screw, freight and passenger.
Waialeale	150	Apr. 11..	342	" "
Haldis		Mar. 23..	1,700.8	" "
Indianapolis	300	" 25..	765.30	" "
Total			3,524.10	

J. C. KINGHORN,
Hull Inspector.

7-8 EDWARD VII., A. 1908

STEAM Vessels Inspected for the nine months of fiscal year ended March 31, 1907.

KEEWATIN, MANITOBA AND NORTHWEST TERRITORIES DIVISION.

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessel.	Number of Passen- gers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where Employed.
1907.				
Grahame.....		July 2..	360.39	Paddle, passenger, Athabasca River.
Keewatin.....		" 5..	20.32	Screw, tug, Athabasca River.
Wrigley.....		" 7..	104.59	Screw, passenger, Mackenzie River.
Eva.....		" 7..	49.82	Screw, tug, Mackenzie River.
Providence.....		" 7..	6.22	" " "
St. Joseph.....		" 9..	27.06	Paddle, tug, Slave River.
Primrose.....		" 11..	8.90	Screw, tug, Slave River.
Peace River.....		" 24..	271.91	Paddle, passenger, Peace River.
St. Charles.....	Not issued	" "	28.79	Screw, freight, Peace River.
Midnight Sun.....		Aug 20..	145.81	Paddle, passenger, Athabasca River.
Strathcona.....	Not issued	" "	76.78	Paddle, freight, Saskatchewan River.
Prospector.....	Not issued	" "	52.23	" " "
Beaver.....	Not issued	" "	80.25	" " "
Alberta.....		Aug. 28..	315.40	Paddle, passenger, " "
Pathfinder.....		" 28..	22.84	Paddle, tug, " "
City of Prince Albert.....		" 28..	139.62	" " "
Marion.....		" 28..	31.54	Screw, tug, Saskatchewan River.
1906.				
Eliza Williams.....		Dec. 31..	50.48	Screw, tug, Thunder Bay.
Edward Fisk.....		" 30..	53.78	" " "
Estell.....		" 31..	51.13	" " "
Georgena.....		" 31..	43.78	" " "
Frank Barnes.....		" 31..	63.41	" " "
Curlew.....	Not issued	" "	61.63	" " "
1907.				
Superior.....		Sept. 11..	88.51	Screw, passenger, Lake Superior.
Orcadia.....		" 11..	25.86	Screw, fish tug, " "
William Whyte.....		" 21..	17.81	Screw, passenger, Lake Wabigoon.
Galatia.....	Not issued	" "	46.10	" " "
Irene.....	Not issued	" "	9.71	" " "
Fire King.....		Oct. 1..	101.90	Paddle, sand pump, Red River.
Victor.....		" 2..	26.32	Screw, tug, Lake Manitoba.
Iceland.....	Not issued	" "	33.70	" " "
Total.....			2,431.59	

G. P. PHILLIPS,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STEAM Vessels not Inspected for the nine months of fiscal year ended March 31, 1907.

KEEWATIN, MANITOBA AND NORTHWEST TERRITORIES DIVISION.

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessels.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Wapiti.....	18.11	12.32	Screw, to be inspected.
Pastime	14.82	11.45	" "
Day Star.....	13.47	9.16	" "
Erin.....	13.80	9.39	" "
Mather	144.53	98.29	" "
Cruiser.....	26.29	15.56	" "
Empress.....	129.28	73.43	" "
Rat Portage.....	14.63	9.95	" "
Widgeon.....	2.92	1.56	" "
Frank Marshall	29.76	20.74	" "
Night-egale.....	5.06	3.04	" "
Otter	16.11	10.96	" "
Clipper.....	52.95	32.43	" "
Argyle	77.70	24.52	" "
Queen.....	31.65	18.71	" "
Kathleen.....	51.08	34.74	" "
Wanderer	20.38	13.42	" "
Standard.....	15.78	10.74	" "
Rambler	25.83	17.56	" "
Helen S.....	12.68	8.63	" "
Sport.....	16.26	11.64	" "
Catherine S.....	66.60	45.29	" "
Villeneuve.....	27.58	18.68	" "
Sand	35.05	22.56	" "
Five Roses.....	42.93	29.49	" "
Hunter.....	11.30	7.69	" "
Daisy Moore.....	38.31	21.51	" "
Ethel Banning.....	37.54	25.35	" "
King Fisher.....	76.74	52.19	" "
Chieftain.....	36.26	24.66	" "
Kenora.....	486.84	368.89	" "
Gracie B.....	20.19	13.73	" "
Alma V.....	55.65	37.85	" "
Shamrock.....	79.84	55.29	" "
Keewatin.....	81.84	50.02	" "
Mary Hatch.....	121.18	82.40	" "
Ethel.....	20.20	6.74	" "
Savage.....	24.96	16.98	" "
Hunter.....	11.30	7.69	" "
Laura A.....	25.64	17.44	" "
Algoma.....	68.59	46.65	" "
Erin	13.80	9.39	" "
Majestic.....	135.22	95.93	" "
Jim Harty.....	6.65	4.53	" "
Lady of the Lake.....	201.43	155.11	" "
Viking	17.24	11.77	" "
Mikado.....	241.73	168.38	" "
Manitou.....	107.03	59.03	" "
Lotta S.....	48.03	23.66	" "
Lady Ellen.....	18.57	12.63	" "
Isabelle.....	40.73	27.70	" "
Cumberland.....	61.96	42.14	" "
John Bull.....	12.66	8.61	" "
Idell	33.92	36.76	" "
Chieftain.....	60.85	37.23	" "
Tempest.....	74.66	50.77	" "
Wolverine.....	278.32	189.26	" "
Premier.....	413.99	281.53	" "
Frank Burton.....	93.74	62.91	" "
Redwing.....	23.14	15.47	" "
Daisy.....	26.33	7.37	" "
Ospray.....	21.22	13.97	" "

7-3 EDWARD VII., A. 1908

STEAM Vessel not Inspected for the nine months of fiscal year ended March 31, 1907.

KEEWATIN, MANITOBA AND NORTHWEST TERRITORIES DIVISION—*Continued.*BOILERS, MACHINERY AND HULL INSPECTION—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Balmoral	36·93	23·21	Screw, to be inspected.
Ilard	30·49	20·49	" "
Highlander	59·24	39·11	" "
Frederick	35·77	26·75	" "
City of Selkirk	457·82	278·83	" "
Alexander	163·57	37·53	" "
J. M. Smith	179·25	121·89	" "
Majestic	63·96	43·51	" "
Rocket	56·61	22·05	" "
Ogema	29·84	14·44	" "
Nelson River	9·79	6·66	" "
Spray	17·58	11·96	" "
Fisherman	44·22	30·07	" "
Cygnat	37·44	25·46	" "
Alert	27·96	18·75	" "
Marvyl	225·07	153·05	" "
Petrel	167·67	93·36	" "
Pioneer	16·41	8·44	" "
G. P. McIntosh	58·23	39·60	" "
Picket	44·58	30·23	" "
James Whalen	313·14	156·26	" "
Dredge Dominion	595·08	.....	" "
Inez	59·10	34·45	" "
Dredge No 6	209·52	.....	" "
Kaministiquie	105·93	72·04	" "
Viper	33·94	19·18	" "
Laura Grace	85·56	58·19	" "
Dredge I X L	100·00	.....	" "
Minitaga	72·56	29·43	" "
Siskiwitt	47·17	34·27	" "
James Adams	50·97	34·66	" "
Dredge No. 8	328·32	.....	To be inspected.
Dredge No. 7	240·00	.....	"
Dredge No. 5	230·85	.....	"
Nora	20·23	13·67	Screw, to be inspected.
Viking	15·25	10·75	" "
Glenora	16·70	9·62	" "
Bertha	10·75	7·11	" "
Maple Leaf	5·21	3·55	" "
Grebe	9·30	6·33	" "
Beatrice M	36·28	26·40	" "
Jessie B.	4·93	3·36	" "
Eagle	11·76	8·00	" "
Mur-el	16·25	11·05	" "
Minnitakie	17·64	12·00	" "
Circe	2·83	0·90	" "
James Mayhew	16·94	11·64	" "
Herbert	21·13	9·93	" "
Gracie	41·19	28·01	" "
James Storey	48·53	33·34	" "
Little Bobs	13·19	8·87	" "
Agwindi	307·41	143·13	" "
Brothers	17·50	11·90	" "
Cariboo	28·65	19·44	" "
D. L. Mather	103·32	70·20	" "
Dispatch	14·00	10·00	" "
Dryden Bell	15·20	11·34	" "
Marguerite	5·75	3·92	" "
Marie	3·22	2·19	" "

SESSIONAL PAPER No. 23a

STEAM Vessels not Inspected for the nine months of fiscal year ended March 31, 1907.

KEEWATIN, MANITOBA AND NORTHWEST TERRITORIES DIVISION—*Continued.*BOILERS, MACHINERY AND HULL INSPECTION—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
Orcadia	23·16	15·75	Screw, to be inspected.
St. Joe	117·64	80·01	" not in commission.
Mikado	24·92	16·86	" to be inspected.
Northern Light	102·88	69·96	Paddle, to be inspected.
Sultana	3·35	2·83	Screw, to be inspected.
Lulu M. Ray	32·64	25·40	" "
Josie	12·42	6·98	" "
Northern Light	16·03	10·91	" "
Total	9,402·65	4,700 44	

G. P. PHILLIPS,
Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STATEMENT of the Number of Steam Vessels added to the Dominion during the nine months of fiscal year ended March 31, 1907; their Class and Horse-power, whether of Wood or Iron; their Gross or Registered Tonnage; where built, and where and how employed.

WESTERN ONTARIO, TORONTO DIVISION.

Name of Vessel.	Horse-power	Class.	Wood, Iron or Steel.	Gross Tonnage	Registered Tonnage	Where Built.	Where and how Employed.
Cayuga	328.75	Twin screw.	Steel	2,199	1,168	Toronto, Ont.	Lake Ontario, pas'gr.
Monarch	15.00	Dredge	"	474	372	Welland, Ont.	Midland Hr., dredge.
Nettie B.	4.50	Screw	Wood	12	9	Port Stanley, Ont	L. Erie, fishing tug.
Bertha L. Cockell.	5.10	"	"	24	16	Pentwater, Mich.	"
Jean	4.26	"	"	21	14	Buffalo, N.Y..	"
Ionic	125.90	Twin screw.	Iron	1,708	1,030	"	Lakes and rivers, freight & pass'gr.
E. Hall No. 1....	9.60	Dredge	Wood	301	246	Bay City, Mich	Sarnia Bay, dredge.
Total	493.11			4,379	2,855		

JNO. DODDS,

Steamboat Inspector.

WESTERN ONTARIO, TORONTO DIVISION.

Brant	8.53	Screw, tug..	Wood.....	49	33	Port Robinson	Welland Canal, tug.
City Dredge No. 2.	24.477	.....	Steel.....	279	234	Toronto	Toronto Bay, dredge.
Sun Beam	1.06	Screw	Wood.....	4	2	Port Sandfield.	Muskoka Lakes, pass.
Thelma .....	.515	"	"	3	2	Hamilton	"
Mattie .....	.393	"	"	2	1	Toronto	"
Helen .....	.607	"	"	3	2	Hamilton	"
Lena .....	.607	"	"	3	2	"	"
Iona	14.703	"	"	21	14	"	"
Algonquin	32.66	"	"	305	200	Kingston	Muskoka Lakes, yacht
Excelsior	7.5	.....	Steel.....	Not registered	..	Lake of Bays..	Huntsville, pass'gr.
Dredge	10.02	.....	Wood.....	"	" ..	Welland.	Midland, dipper dredge.
Helena .....	.607	.....	" .....	3	2	Bell Ewart ...	Lake Simcoe, dredge.
Hardy	13.5	.....	" .....	94	64	Toronto	Hamilton Bay, "
Total	113.541			766	556		

J. B. STEWART,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STATEMENT of the Number of Steam Vessels added to the Dominion during the nine months of fiscal year ended March 31, 1907; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

COLLINGWOOD DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage	Registered Tonnage	Where Built.	Where and how Employed.
A. F. Bowman...	32 7	Screw	Wood....	113	77	Collingwood..	All lakes and rivers, tug.
Puffing Billy, (gasoline).	8	"	"	2	2	Waubashene.	Penetanguishene and vicinity, passenger.
Siesta (gasoline)..	1 6	"	"	5	3	"	Penetanguishene and vicinity, passenger.
Emily May.....	9 3	"	"	30	20	Collingwood..	Georgian Bay, fishing tug.
David Marwick..	13 5	"	"	30	20	Tobermoy	Georgian Bay and Lake Huron, tug.
Total.....				180	122		

E. W. McKEAN,

Steamboat Inspector.

KINGSTON DIVISION.

Wenona.....	8 6	Screw	Wood....	25 56	17 39	Prescott, Ont.	River St. Lawrence, private yacht.
Vernon, Jr.....	10 6	"	"	46 06	25 58	Manitowoc, Wis.....	River St. Lawrence, private yacht.
Homer.....	1 06	"	"	2 02	1 37	Kingston, Ont.	Rideau Canal, gasoline, passenger.
The Inn.....	1 35	"	"	2 02	1 37	Gananoque, Ont.....	Gananoque & Clayton, gas., pass'gr.
Bobs.....	53	"	"	11 43	7 78	Peterboro', Ont.	Cos. Vict. & Peterboro', pr. yacht.
Evelin.....	53	"	"	4 10	2 79	Lakefield, Ont.	Cos. Vict. & Peterboro', fishing boat.
Mississippi.....	1 35	"	"	4 15	3 00	Carleton Place, Ont..	Carleton Place, tug boat.
George H.....	1 20	"	"	4 16	2 83	Kingston, Ont.	Collins Bay & Brockville, passenger
Otonabee.....	21 33	Twin screw.	"	136 44	87 43	Peterboro', Ont.	Cos. Vict. & Peterboro', passenger.
Hattie Bell	1 20	Screw.....	"	7 69	5 23	Br'dg'w'tr, Ont.	Cos. Vict. & Peterboro', private boat.
Genl. W. B. Franklin.....	1 20	"	"	20 42	15 86	Pamrapo, N. Jersey.....	Kingston & Ottawa, passenger.
Total.....				264 05	170 63		

T. P. THOMPSON,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STATEMENT of the Number of Steam Vessels added to the Dominion during the nine months of fiscal year ended March 31, 1907; their Class and Horse power; whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

SOREL DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage	Registered Tonnage	Where Built.	Where and how Employed.
Alaska	66·66	Screw, 1st class.	Steel...	245·08	144·17	Sorel, P.Q. ...	Pass., St. Lawrence River.
Total.....				245·08	144·17		

A. RONDEAU,
Steamboat Inspector.

QUEBEC DIVISION.

J. G. Witherbee..	49·3	Screw	Iron	164·82	82·16	Philadelphia..	Tug, Bic and Mnt'l.
Brulot.....	1·63	"	Wood	7·74	6·37	Salmon Lake..	Tug, Salmon Lake.
Hero	6·5	"	"	31·71	21·56	St. Jos. de Levis	Tug, Quebec Harb'r.
St. Etienne.....	14·13	"	"	33·43	22·73	St. Alexis	Tug, Murray Bay and Quebec.
Marlo	1·06	"	"	6·0	3·51	Lac aux Sable.	Tug, Lac aux Sable.
Blanche.....	0·69	"	"	7·0	4·21	"	"
Total..				250·70	140·54		

JOS. SAMSON,
Steamboat Inspector.

HALIFAX DIVISION.

Moto.....	6·16	Screw	Wood	15·04	11·80	Digby, N.S. ...	Gasoline ferry, Digby and Bear River.
Islander	16·6	"	"	54·44	37·03	Shelburne, N.S.	Tug boat, coasting.
Magdalen	28·16	"	"	134·59	91·52	"	Frt., and pass., Mulgrave and coasting.
Atlantic	16·6	"	"	98·19	66·77	"	Frt Yarmouth: and coasting.
Rosemary	8·16	"	"	41·26	28·06	Sable River, N.S.	Fishing, Halifax and coasting.
Margaret.....	27·36	"	"	194·62	99·76	Sheet Harbour, N.S.	Frt. and pass., Halifax and coasting.
Robiette	19·8	"	"	66·57	31·27	Liverpool, N.S.	"
Total				604·71	366·21		

J. P. ESDAILE,
Steamboat Inspector.

NEW BRUNSWICK DIVISION.

Marion.....	3·27	Stern wheel.	Wood	13·74	9·14	Buctouche, N.B.	Buctouche River, as a tug.
Total				13·74	9·14		

C. E. DALTON,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

STATEMENT of the Number of Steam Vessels added to the Dominion during the nine months of fiscal year ended March 31, 1907; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage	Registered Tonnage	Where Built.	Where and how Employed.
Kuskanook	32·3	Stern wheel.	Wood	1,008·19	547·57	Nelson, B.C.	Kootenay Lake, frt. and pass.
Florence Carlin..	9·6	"	"	143·15	90·19	Kualt, B.C.	Shuswap Lake, towing.
Takara Maru	12·9	Screw	"	30·22	20·55	Kobe Japan ..	Coast, B.C., towing.
Bessie Dollar.....	244·	"	Steel,.....	4,329·19	2,797·51	Port Glasgow, Scotland.	B.C. ports and China, freight.
Queen City	23·4	"	Wood	67·31	33·66	Seattle, Wash.	Coast, B.C., towing.
Total				5,578·06	3,489·48		

J. A. THOMSON,
Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STATEMENT of the Number of Steam Vessels added to the Dominion during the nine months of fiscal year ended March 31, 1907; their Class and Horse power; whether of Wood or Iron; their Gross and Registered Tonnage; where built, and how employed.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and how Employed.
Chinook.	3·3	Screw...	Wood...	34	23	Astoria, U. S. A.	Coasting, tug.
Sea Foam.	6	" ..	" ..	17	12	Vancouver.	Coasting, passeng-r.
Favorite.	2·1	" ..	" ..	25	17	Not known.	Coasting, tug.
Naiade.	3·2	" ..	" ..	19	13	Vancouver.	Coasting, passenger.
Restless.	16	" ..	" ..	76	53	New Westminster	Coasting, tug.
Sarah M. Renton	28·4	" ..	" ..	147	100	Port Blakely.	Coasting, tug.
Progressive.	16·8	" ..	" ..	88	60	Vancouver.	Coasting, tug.
Topaz.	12	" ..	Steel...	34	23	Victoria.	Coasting, tug.
J. E. Boyden.	37·5	" ..	Wood...	122	83	Seattle.	Coasting, tug.
Mowitz.	1·6	" ..	" ..	50	34	Vancouver.	Coasting, yacht.
Rambler.	8	" ..	" ..	15	9	Vancouver.	Coasting, tug.
Storm King.	16	" ..	" ..	99	67	New Westminster	Coasting, tug.
Lily.	2·8	" ..	" ..	7	5	Vancouver.	Coasting, fishing boat.
Total.				733	499		

F. M. RICHARDSON,

Steamboat Inspector.

KEEWATIN, MANITOBA AND NORTHWEST TERRITORIES DIVISION.

Frank Barnes.	10·8	Screw...	Wood...	63·41	43·12	Manistee, Mich. ..	Dredge tug, Port Arthur.
Eliza Williams.	10·8	" ..	Comp'd.	50·48	34·13	Buffalo, N. Y.	Dredge tug, Port Arthur.
Estell.	6·7	" ..	Wood...	51·13	34·78	Walkens, N. Y.	Dredge tug, Port Arthur.
Edward Fisk.	7·5	" ..	" ..	68·78	46·78	Buffalo, N. Y.	Dredge tug, Port Arthur.
Peace River.	6·6	Paddle..	" ..	271·91	189·96	Vermillion, Peace River.	Pass. & frt., Peace River.
City of Prince Albert.	6·6	" ..	" ..	139·62	88·92	Prince Albert.	Tug, Saskatchewan R.
Strathcona.	5·0	" ..	" ..	76·78	52·22	Edmonton.	Frt., Saskatchewan R.
Midnight Sun.	5·4	" ..	" ..	145·81	84·13	Athabasca Land g.	Pass. & frt., Athabasca R.
Northern Light.	2·5	" ..	" ..	102·88	69·96	" ..	Pass. & frt. Lesser Slave L.
Providence.	0·8	Screw...	" ..	7·88	6·36	Lesser Slave Lake	Tug, Mackenzie River.
Keewatin.	1·2	" ..	" ..	20·32	13·82	Fort Chipewyan.	Tug, Lake Athabasca.
Fire King.	5·6	Paddle..	" ..	101·90	69·30	Winnipeg.	Pumping sand, Red River
Victor.	3·3	Screw...	" ..	26·32	17·90	The Landing.	Tug, Lake Manitoba.
Curlew.	10·8	" ..	" ..	61·63	57·53	Ogdensburg, N. Y.	Tug, Thunder Bay.
Total.				1,188·85	808·91		

G. P. PHILLIPS,

Steamboat Inspector.

SESSIONAL PAPER No. 23a

STATEMENT of Steam Vessels lost, broken up or laid up, as unfit for service, in the Dominion, during the nine months of fiscal year ending March 31, 1907, and where and how employed.

WESTERN ONTARIO, TORONTO DIVISION.

Name of Vessel.	Where and how last Employed.	Gross Tonnage.	Class of Vessel and Reason of Unfitness.
Elk.....	Lake Erie, fishing tug.....	9	Screw, dismantled.
Euna.....	Thames River, tug.....	6	" "
M. A. Bennett.....	Welland Canal, ".....	34	" "
Mary Arnett.....	Lake Huron, ".....	8	" "
Huron.....	" ".....	55	" "
L. Shickluna.....	Lake Ontario, ".....	16	" "
Mary Louise.....	Lake of Bays, passenger.....	64	" "
Maple Leaf.....	" ".....	32	" burned.
Gordon Jerry.....	Lake Ontario, freight.....	124	" "
Skylark.....	Lake Erie, tug.....	55	" wrecked.
Goldspie.....	Lakes and rivers, passenger.....	1,122	" "
Monarch.....	" ".....	2,017	" "
Total.....		3,542	

JOHN. DODDS,

J. B. STEWART,

Steamboat Inspectors.

COLLINGWOOD DIVISION.

T. J. Collup	Soo and vicinity, freight....	63	Screw, dismantled.
Sampson.....	Fesserton, tug.....	12	Paddle, dismantled.
Rover.....	Midland, ".....	51	Screw, dismantled.
Fred A. Hodgson....	Georgian Bay, tug.....	63	" "
Victoria	" ".....	13	" "
J. H. Jones.....	Georgian Bay and Pt. Huron, pass	152	" foundered.
Idle Hour.....	Midland, yacht.....	20	" dismantled.
Total		374	

E. W. McKEAN,

Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STATEMENT of Steam Vessels lost, broken up or laid up, as unfit for service, in the Dominion, during the nine months of fiscal year ending March 31, 1907, and where and how employed.

KINGSTON DIVISION.

Name of Vessel.	Where and how last Employed.	Gross Tons.	Class of Vessel and Reason of Unfitness.
Beaver.....	Cos. Vict. and Peterboro, pass..	18'00	Screw, destroyed by fire.
Dauntless	" " " " ..	3 38	" " " " "
Dorothy	Napanee and Trenton, " ..	10'09	Screw, hull used up and broken.
City of Peterboro.....	Cos. Vict. and Peterboro, " ..	224'29	T. Screw, hull " " "
Total .....	.....	255'76	

T. P. THOMPSON,
Steamboat Inspector.

MONTREAL DIVISION.

Empress.....	Sturgeon Falls, tug.....	56	Screw, dismantled.
Dorothy.....	" " " " ..	12	" " " " "
Maude.....	St. Lawrence and Ottawa Rivers.	269	Paddle, sunk in collision.
Antelope.....	" " " " ..	83	Screw, broken up.
St. George.....	" " " " ..	68	" " " " "
Laurier.....	" " " " ..	14	" " " " "
Total.....	.....	502	

WM. LAURIE,
LOUIS ARPIN,
Steamboat Inspectors.

SESSIONAL PAPER No. 23a

STATEMENT of Steam Vessels lost, broken up or laid up, as unfit for service, in the Dominion, during the nine months of fiscal year ending March 31, 1907, and where and how employed.

QUEBEC DIVISION.

Name of Vessel.	Where and how last Employed.	Gross Tonnage.	Class of Vessel and Reason of Unfitness.
Atlantic.....	Twin, screw, passenger & freight, Montreal & Gaspé.....	565	Engine taken out, used as barge
Como.....	Paddle, tug, Murray Bay.....	75	" " "
Dama.....	Screw, passenger & tug, Les Escoumains & Trois Pistoles..	55	Engine taken out and rebuilt. ..
Total .....	.....	695	

JOS. SAMSON,
Steamboat Inspector.

HALIFAX DIVISION.

Maggie.....	Passenger, Lunenburg.....	13·10	Screw, burnt.
Strathcona.....	" Halifax.....	284·09	" "
Yankee.....	Fishing, Yarmouth.....	7·31	Screw, wrecked.
Victor.....	Freight, coastwise.....	26·86	Screw, sold to foreigners.
Total.....	.....	331·36	

J. P. ESDAILE,
Steamboat Inspector.

NEW BRUNSWICK DIVISION.

Bismarck	St. John River, tug.....	49·14	Paddle, hull condemned.
Premier.....	Miramichi River, tug.....	8·70	Screw, boiler taken out.
Elfin.....	Chtown Harbour, ferry.....	122·42	Paddle, burned.
Total.....	.....	180·26	

C. E. DALTON,
Steamboat Inspector.

BRITISH COLUMBIA DIVISION.

Strathcona.....	Skeena River, freight & passenger	596·28	S. wheel, engines broken down.
Princess Louise	Coast B.C., freight & passenger.	331·76	Paddle, broken up.
Delta.....	" freight.....	25·20	Screw, scow laid up neglected.
Yosemite.....	" freight & passenger.	1,525·03	Paddle, sold to U.S. owners
Victorian.....	" " "	1,503·64	Screw, sold to U.S. owners.
Total .....	.....	4,581·91	

J. A. THOMSON,
Steamboat Inspector.

7-8 EDWARD VII., A. 1908

STATEMENT of Steam Vessels lost, broken up or laid up, as unfit for service, in the Dominion, during the nine months of fiscal year ending March 31, 1907, and where and how employed.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Where and how last Employed.	Gross Tonnage.	Class of Vessel and Reason of Unfitness.
Columbia.....	Yukon River, freight.....	716	Stern wheel, lost by fire.
Total.....	.....	716	

F. M. RICHARDSON,
Steamboat Inspector.

KEEWATIN, MANITOBA AND NORTHWEST TERRITORIES DIVISION.

Princess.....	L. Winnipeg, passenger.....	405.44	Screw, lost, Lake Winnipeg.
Georgina.....	Thunder Bay, tug.....	43.78	Screw, lost, Thunder Bay.
City of Alberton..	Rainy River, tug.....	67.54	Screw, dismantled.
Beaver.....	Lake of Woods, tug.....	34.15	"
Widgeon.....	" ".....	2.92	"
Rover.....	" ".....	7.82	"
Welcome.....	Rainy River, tug.....	42.81	"
D. L. Mather.....	Lake of Woods, tug.....	103.32	Screw, unfit for services.
Hazel.....	Lake Winnipeg, tug.....	7.52	Screw, dismantled.
Harvey Neilon.....	Thunder Bay, tug.....	65.00	Screw, burned.
Total.....	.....	780.30	

GEO. P. PHILLIPS,
Steamboat Inspector.

SESSIONAL PAPER No. 23a

List of Certificates of Competency and Temporary Certificates granted to Engineers of Steamboats from July 1, 1906, to March 31, 1907.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1906.					\$ cts.
4272	July 4.	Chas. G. Bamford.	Temporary	Gananoque, Ont.	Kingston, O.	2 00
4273	" 4.	Zaccheus White.	"	Lakefield, Ont.	Lakefield, O.	2 00
4274	" 4.	Wm. Robinson.	"	Kingston, Ont.	Gravenhurst, O.	2 00
4275	" 4.	Timothy Whitred.	"	Birdsall, Ont.	Hastings, O.	2 00
4276	" 11.	John McGaw.	"	Dorset, W.R., Ont.	North Bay, O.	2 00
4277	" 11.	Arthur E. Wanamaker.	"	Frankford, Ont.	Temagami, O.	2 00
4278	" 11.	Wm. Newton.	"	New Liskeard, Ont.	New Liskeard, O.	2 00
4279	" 11.	Clarence A. Lorimer.	"	Beebe Plain, Que.	Newport, Que.	2 00
4280	" 11.	Wm. Windsor.	"	Callander, Ont.	Callander, O.	2 00
4281	" 11.	Erik M. Hansen.	"	Vancouver, B.C.	Vancouver, B.C.	2 00
4282	" 11.	Thos. A. James.	"	Combermere, Ont.	Barry's Bay, O.	2 00
4283	" 11.	Henry W. Hibbard.	"	Temagami, Ont.	Temagami, O.	2 00
4284	" 11.	Thos. Geo. Brigham.	"	Ottawa, Ont.	Britannia, O.	2 00
4285	" 11.	Clark Shipman.	"	Ivy Lea, P.O., Ont.	Kingston, O.	2 00
4286	" 11.	Hugh S. Maunder.	1st Class, U.K.	Portsmouth, Eng.	Victoria, B.C.	5 00
4287	" 11.	Henry Beviss.	4th "	Victoria, B.C.	"	5 00
4288	" 16.	Alex. C. Doyle.	Temporary	North Bay, Ont.	North Bay, O.	2 00
4289	" 25.	Pamphile Demeule.	"	Buckingham, Que.	Montreal, Que.	2 00
4290	" 28.	Robert Downie.	1st Class, U.K.	17½ Agricola St., Halifax, N.S.	Halifax, N.S.	5 00
4291	" 28.	Emile Bolduc.	4th Class.	Village Bienville, Que.	Quebec, Q.	5 00
4292	" 28.	Chas. Bateman.	Temporary	Lake St. Joseph, Que.	"	2 00
4293	" 28.	Alex. Poitras.	"	Roberval, Que.	"	2 00
4294	" 28.	Adjutor Roy.	2nd Class.	St. Joseph de Lévis, Que.	Sorel, Q.	5 00
4295	" 30.	Paul McGee.	4th "	Rimouski, Que.	Quebec, Q.	5 00
4296	" 30.	Jules Ed. Lepage.	4th "	Village Bienville, Que.	"	5 00
4297	" 31.	Jos. Marchildon.	Temporary	Sturgeon Falls, Ont.	Montreal, Q.	2 00
4298	Aug. 2.	Geo. Thos. Michener.	"	Ridgeway, Ont.	Point Abino, O.	2 00
4299	" 2.	Cyrenus Michner.	"	"	Ridgeway, O.	2 00
4300	" 3.	Cecil H. Cantley.	"	Penetanguishene, Ont.	Penetanguishene, O.	2 00
4301	" 3.	Wm. Geo. Cantley.	"	"	"	2 00
4302	" 13.	Frederic Masters.	"	Niagara-on-the-Lake, O.	Niagara, O.	2 00
4303	" 13.	Frank Krafé.	"	Barrington, N.S.	Halifax, N.S.	2 00
4304	" 13.	Zacharie P. Boudreau.	"	Tusket Wedge, N.S.	"	2 00
4305	" 13.	Chas. Wm. Bowerman.	"	Port Perry, Ont.	Lindsay, O.	2 00
4306	" 13.	John Jas. Coones.	"	Bridgenorth, Ont.	Kingston, O.	2 00
4307	Sept. 22.	J. Berg.	"	Lund, B.C.	Vancouver, B.C.	2 00
4308	" 22.	Alex. Major.	"	Gananoque, Ont.	Kingston, O.	2 00
4309	" 22.	Herbert Moore.	"	"	"	2 00
4310	" 22.	Frederick M. Young.	"	Young's Point, Ont.	"	2 00
4311	" 22.	Lawrence Degan.	"	Cornwall, Ont.	Cornwall, O.	2 00
4312	" 22.	John Wm. Hayes.	"	Smith's Falls, Ont.	Kingston, O.	2 00
4313	" 22.	Joseph Bark.	"	Cornwall, Ont.	"	2 00
4314	" 22.	Frederick Masson.	"	"	"	2 00
4315	" 22.	Elsewood Leeman.	"	Smith's Falls, Ont.	"	2 00
4316	" 22.	Chas. F. Funnell.	"	Gananoque, Ont.	"	2 00
4317	" 22.	Harold Geo. Cooper.	"	Port Carling, Ont.	Port Carling, O.	2 00
4318	" 22.	John H. Brick.	"	Hamilton, Ont.	Toronto, O.	2 00
4319	" 22.	Louis A. Pringle.	"	St. Catharines, Ont.	Port Carling, O.	2 00
4320	" 22.	Wm. A. Walton.	"	Magnetawan, Ont.	Magnetawan, O.	2 00
4321	" 22.	Norman E. Bennett.	"	Hamlet, P. O., Severn, Ont.	Severn River, O.	2 00
4322	" 22.	John L. Insley.	"	Kenora, Ont.	Kenora, Ont.	2 00
4323	" 22.	Henry Villeneuve.	"	"	"	2 00
4324	" 22.	Norman B. McCauley.	"	Toronto, Ont.	Toronto, Ont.	2 00
4325	" 22.	Mederic Archambault.	"	Bout de l'Isle, P. Q.	Montreal, Que.	2 00
4326	" 22.	George Hewis.	"	Temagami, Ont.	Temagami, Ont.	2 00
4327	" 22.	John Donaldson.	"	New Liskeard, Ont.	New Liskeard, O.	2 00
4328	" 22.	Adolphus, Latour.	"	Ville Marie, Que.	Temiscamingue, Q.	2 00
4329	" 22.	Cyril Hupe.	"	Kippewa, P. Q.	Turtle Portage, Q.	2 00
4330	" 22.	Silas B. Tower.	"	Dorchester, N. B.	Dorchester, N.B.	2 00
4331	" 22.	Jas R. Hinckson.	"	Montreal, Que.	Temagami, Ont.	2 00

7-8 EDWARD VII., A. 1908

List of Certificates of Competency and Temporary Certificates granted to Engineers on Steamboats from July 1, 1906, to March 31, 1907.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
1906						
4332	Sept. 22.	Narcisse Gravelle.....	Temporary	Aylmer, Que.	Montreal, Que..	2 00
4333	" 22.	Henry B. Annett.....	"	Peninsula, Gaspé, Que..	Gaspé, Que.	2 00
4334	" 22.	Peter Brow	4th class	Lake Megantic, P.Q.	Quebec, Que.	5 00
4335	" 22.	James D. Connolly.....	"	Halifax, N. S.	Halifax, N.S.	5 00
4336	" 22.	Alfred Young.....	2nd class, U.K.	"	"	5 00
4337	" 22.	James Downie.....	4th "	"	"	5 00
4338	" 24.	George Willis.....	Temporary	Carleton Place, Ont.	Carleton Place, O	2 00
4339	" 24.	John L. McFaul.....	4th class	Deseronto, Ont.	Kingston, Ont.	5 00
4340	" 27.	John W. Anderson.....	"	Slocan City, B.C.	Arrowhead, B.C.	5 00
4341	Oct. 4.	John Gonyea.....	3rd "	Smiths Falls.....	Kingston, Ont.	5 00
4342	" 4.	Jas. Alex. Elliott.....	4th "	Halifax, N. S.	Halifax, N.S.	5 00
4343	" 11.	William Powles.....	Temporary	Glenora, Ont.	Kingston, Ont.	2 00
4344	" 11.	Wm. Dunigan.....	"	Kingston, Ont.	"	2 00
4345	" 12.	Chas. W. Holmes.....	"	Morrisburg, Ont.	"	2 00
4346	" 17.	Frederick Frenzen.....	3rd class	Vancouver, B.C.	Vancouver, B.C.	5 00
4347	" 17.	Philip J. Lahey.....	2nd "	Dartmouth, N.S.	Montreal, Que..	5 00
4348	" 17.	John H. Smith.....	2nd class, U.K.	Vancouver, B.C.	Vancouver, B.C.	5 00
4349	Sept. 23.	Jules Desforges.....	Temporary	Calumet, P.Q.	Montreal, Que..	2 00
4350	" 23.	Merille Laroque.....	"	Point Fortune, P.Q.	"	2 00
4351	Nov. 5.	John H. Dixon.....	4th class	Dawson, Y. T.	Dawson, Y.T.	5 00
4352	" 5.	James T. Conrod.....	4th "	Halifax, N. S.	Halifax, N. S.	5 00
4353	" 5.	Jas. Fitzsimmons.....	4th "	Toronto, Ont.	Toronto, Ont.	5 00
4354	" 5.	Blanchard McGuise.....	"	Pictou, N.S.	Halifax, N.S.	2 00
4355	" 12.	Wm. A. Macdonald.....	3rd class	Halifax, N.S.	"	5 00
4356	" 12.	Geo. Wm. Jollimore.....	Temporary	Pictou, N.S.	Pictou, N. S.	2 00
4357	" 14.	Frank Brickenden.....	"	New Liskeard, Ont.	Montreal, Que..	2 00
4358	" 14.	Patrick H. Murphy.....	3rd class	St. Joseph, Levis, P.Q.	Quebec, Que.	5 00
4359	" 17.	John Scott.....	2nd "	Pictou, N.S.	Halifax, N.S.	5 00
4360	" 19.	Henry A. Watson.....	Temporary	Vancouver, B.C.	Vancouver, B.C.	2 00
4361	" 19.	Christopher Borril.....	3rd class	Vancouver, B.C.	"	5 00
4362	" 24.	Edwin A. Bloor.....	4th "	Victoria, B.C.	Victoria, B.C.	5 00
4363	" 24.	John Murkar.....	4th "	Revelstoke, B.C.	"	5 00
4364	" 27.	Louis O. Trotter.....	4th "	Grondines, P.Q.	Montreal, Que..	5 00
4365	" 27.	Jos. F. Howson.....	4th "	Gore Bay, Ont.	Cutler, Ont.	5 00
4366	" 26.	Edward B. Brown.....	4th "	Victoria, Ont.	Collingwood, O.	5 00
4367	" 30.	Robert Johnston.....	3rd "	Thessalon, Ont.	Thessalon, Ont..	5 00
4368	Dec. 7.	Frank White.....	4th "	Toronto, Ont.	Toronto, Ont.	5 00
4369	" 22.	John L. Physick.....	3rd "	Vancouver, B.C.	Vancouver, B.C.	5 00
1907						
4370	Jan. 2.	Jos. A. Samson.....	1st class, U.K.	Village Bienville, P.Q.	Sorel, P.Q.	5 00
4371	" 2.	Tancride Chartier.....	3rd class	Champlain, P.Q.	Montreal, Que..	5 00
4372	" 2.	Alfred I. Ross.....	2nd class, U.K.	Dartmouth, N.S.	Halifax, N. S.	5 00
4373	" 2.	Albert Desrochers.....	2nd class	St. Croix, P.Q.	Montreal, Que..	5 00
4374	" 2.	Wm. Dungan.....	3rd "	Kingston, Ont.	Kingston, Ont..	5 00
4375	" 24.	John Leonard.....	Temporary	Indiantown, N.B.	St. John, N. B.	2 00
4376	" 24.	Frank McG. Wagner.....	4th class	Liverpool, N.S.	Halifax, N.S.	5 00
4377	" 24.	Richard B. Forsyth.....	2nd class, U.K.	Clarence House, Dresden staff, G.B.	"	5 00
4378	" 28.	John F. Wilson.....	2nd Class, U.K.	Vancouver, B.C.	Vancouver, B.C.	5 00
4379	" 28.	Thomas Carey.....	4th "	"	"	5 00
4380	" 28.	Thos. H. Rankin.....	4th "	"	"	5 00
4381	" 28.	Jefferson Harrison.....	Temporary	Chilliwack, B.C.	"	2 00
4382	" 28.	Frederick Keeling.....	"	Ladner, B.C.	"	2 00
4383	" 29.	Peter Geo. Cavanagh.....	"	Perth, Ont.	Kingston, Ont..	2 00
4384	" 29.	Justice R. Ferguson.....	4th Class	Pictou, Ont.	"	5 00
4385	" 29.	Chas. A. McWilliam.....	2nd "	Kingston, Ont.	"	5 00
4386	" 29.	David G. Donovan.....	4th "	Brockville, Ont.	"	5 00
4387	" 29.	Robert Murdock.....	4th "	Victoria, B.C.	Victoria, B.C.	5 00
4388	" 29.	Andrew Dickson.....	2nd " U.K.	England.....	"	5 00
4389	" 29.	Aaron E. Higgins.....	4th "	Kingston, Ont.	Kingston, Ont.	5 00
4390	" 29.	Thos. Geo. Bishop.....	2nd "	"	"	5 00

SESSIONAL PAPER No. 23a

List of Certificates of Competency and Temporary Certificates granted to Engineers of Steamboats from July 1, 1906, to March 31, 1907.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1907.					\$ cts.
4391	Jan. 29..	Robert Knight.....	4th Class	Kingiton, Ont.	Kingston, Ont.	5 00
4392	" 30..	Nazaire Marchand.....	4th "	Champlain, P.Q.	Montreal, Que.	5 00
4393	" 30..	Edwin Richards.....	3rd "	Quebec, Que.	"	5 00
4394	" 30..	Lucien Sauvageau.....	4th "	Montreal, P.Q.	"	5 00
4395	" 30..	Achille Carrier.....	2nd "	"	"	5 00
4396	Feb. 11..	Russell R. Foote.....	2nd "	Owen Sound, Ont.	Collingwood, O.	5 00
4397	" 11..	John B. McLaren.....	3rd "	"	"	5 00
4398	" 11..	Wm. Lake.....	4th "	Collingwood, Ont.	"	5 00
4399	" 11..	Richard McLaren.....	2nd "	Owen Sound, Ont.	"	5 00
4400	" 11..	Albert B. McArthur.....	4th "	"	"	5 00
4401	" 11..	Henry Wm. Paus.....	4th "	Penetanguishene, Ont.	"	5 00
4402	" 11..	Moses Johnson.....	3rd "	Collingwood, Ont.	"	5 00
4403	" 11..	James R. Dyson.....	4th "	Owen Sound, Ont.	"	5 00
4404	" 11..	Wm. L. Beaton.....	4th "	"	"	5 00
4405	" 11..	Frank C. Lancaster.....	4th "	Collingwood, Ont.	"	5 00
4406	" 11..	John Taylor.....	4th "	Toronto, Ont.	Toronto, Ont.	5 00
4407	" 11..	Frederick G. Waddell.....	4th "	"	"	5 00
4408	" 11..	John Kelso.....	4th "	Huntsville, Ont.	"	5 00
4409	" 11..	John Thos. Smith.....	3rd "	"	"	5 00
4410	" 11..	Wm. Henry Kerr.....	4th "	Toronto, Ont.	"	5 00
4411	" 11..	Robert Auger.....	4th "	Quebec, Que.	Quebec, Que.	5 00
4412	" 11..	Elzear Morin.....	4th "	St. Thomas, P.Q.	"	5 00
4413	" 11..	Donat Morinville.....	4th "	Champlain, P.Q.	"	5 00
4414	" 11..	Simeon Sanschagrin.....	4th "	Village Bienville, P.Q.	"	5 00
4415	" 11..	Gazollie Martin.....	4th "	"	"	5 00
4416	" 11..	Omer Croteau.....	3rd "	St. Croix, P.Q.	"	5 00
4417	" 11..	Daniel M. Eismor.....	2nd "	U.K. Lunenburg, N.S.	"	5 00
4418	" 11..	Robert Lee.....	4th "	Wallaceburg, Ont.	Vancouver, B.C.	5 00
4419	" 11..	Wm. John Craig.....	4th "	Sarnia, Ont.	Toronto, Ont.	5 00
4420	" 11..	Chas. L. Holmes.....	4th "	Toronto, Ont.	"	5 00
4421	" 11..	Geo. Edmond Down.....	3rd "	Sarnia, Ont.	"	5 00
4422	" 11..	Harvey Myers.....	3rd "	"	"	5 00
4423	" 11..	Michael S. Murray.....	4th "	Toronto, Ont.	"	5 00
4424	" 18..	Richard H. Hale.....	4th "	Nelson, B.C.	Victoria, B.C.	5 00
4425	" 18..	Wylie Spicer.....	2nd "	U.K. Spencer's Island, Cumberland Co., N.S.	St. John, N.B.	5 00
4426	" 18..	Wm. F. Gill.....	3rd "	59 Harrison St., St. John, N.B.	"	5 00
4427	" 18..	William Johnston.....	3rd "	Melocheville, Que.	Montreal, Que.	5 00
4428	" 18..	Harry Hooper.....	4th "	Second St., North Vancouver, B.C.	Vancouver, B.C.	5 00
4429	" 18..	Frederick W. Calbrick.....	4th "	Vancouver, B.C.	"	5 00
4430	" 18..	Arthur B. Dorman.....	3rd "	Hantsport.....	Halifax, N.S.	5 00
4431	" 20..	James Lawrence.....	3rd "	Parry Sound, Ont.	Toronto, Ont.	5 00
4432	" 20..	Alfred J. House.....	4th "	Port Dalhousie, Ont.	"	5 00
4433	" 20..	Alex. Jas. Scobie.....	3rd "	Collingwood, Ont.	Collingwood, O.	5 00
4434	" 20..	Frank Dance.....	4th "	"	"	5 00
4435	" 20..	Chas. Butterworth.....	2nd "	Owen Sound, Ont.	"	5 00
4436	Feb. 20..	Earl W. Sparling.....	4th "	Collingwood, Ont.	Collingwood, Ont.	5 00
4437	" 20..	John Wm. Davenport.....	4th "	Toronto, Ont.	Toronto, Ont.	5 00
4438	" 23..	Walter Wells.....	3rd "	Balmoral, Man.	Keewatin, Man.	5 00
4439	" 23..	Samuel Brunelle.....	2nd "	Champlain, P.Q.	Quebec, Que.	5 00
4440	" 23..	Jos. P. Turner.....	3rd "	St. John, N.B.	St. John, N.B.	5 00
4441	" 23..	Jos. Falardeau.....	3rd "	Village Bienville, P.Q.	Quebec, Que.	5 00
4442	" 23..	Achille Fontaine.....	3rd "	Village Lauzon, P.Q.	"	5 00
4443	" 23..	Adjutor Barras.....	3rd "	"	"	5 00
4444	" 23..	Honore Hudon.....	4th "	Quebec (St. Roch) P.Q.	"	5 00
4445	" 28..	Thos. E. Miller.....	4th "	Toronto, Ont.	Toronto, Ont.	5 00
4446	" 28..	Rosarie Casey.....	3rd "	Village Bienville, P.Q.	Quebec, Que.	5 00
4447	" 28..	Myese Bouchard.....	3rd "	Murray Bay, P.Q.	"	5 00
4448	Mar. 4..	Edouard Fontaine.....	2nd "	Quebec, Que.	"	5 00
4449	" 4..	Nicholas Protomastro.....	2nd "	Village Bienville, P.Q.	"	5 00
4450	" 4..	Joseph Lepage.....	2nd "	U.K. " "	"	5 00

7-8 EDWARD VII., A. 1908

LIST of Certificates of Competency and Temporary Certificates granted to Engineers of Steamboats from July 1, 1906, to March 31, 1907.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1907.					\$ cts.
4451	Mar. 1.	Daniel E. Evans.....	2nd Class U.K.	Adelaide, Australia....	Victoria, B.C....	5 00
4452	" 5.	Wm. H. Taylor.....	3rd ".....	Kingston, Ont.....	Kingston, Ont....	5 00
4453	" 5.	Wm. Henry Wilkinson....	4th ".....	Gananoque, Ont.....	" ".....	5 00
4454	" 7.	Ambrose Dunn.....	3rd ".....	Kingston, Ont.....	" ".....	5 00
4455	" 4.	Septimus A. Werry.....	4th ".....	Vancouver, B.C.....	Vancouver, B.C....	5 00
4456	April 22.	Frederick Moynes.....	Temporary.....	Lindsay, Ont.....	Kingston, Ont....	2 00
4457	" 22.	Frank T. Norris.....	3rd Class.....	Kingston, Ont.....	" ".....	5 00
4458	" 22.	Jas. J. Toppings.....	4th ".....	Desoronto, Ont.....	" ".....	5 00
4459	" 22.	Thos. Lovitt.....	4th ".....	Kingston, Ont.....	" ".....	5 00
4460	" 22.	Isaac J. Boynton.....	4th ".....	Bobcaygeon, Ont.....	" ".....	5 00
4461	" 22.	Francis Thériault.....	2nd ".....	Kingston, Ont.....	" ".....	5 00
4462	" 22.	Wm. H. Turnbull.....	3rd ".....	Victoria, B.C.....	Victoria, B.C....	5 00
4463	" 22.	Thos. Hembrough.....	4th ".....	New Westminster, B.C.	Vancouver, B.C....	5 00
4464	" 22.	George Tuby.....	4th ".....	Vancouver, B.C.....	" ".....	5 00
4465	" 22.	Albert Belanger.....	4th ".....	Montreal, Que.....	Montreal, Que....	5 00
4466	" 22.	Ernest Sauvageau.....	4th ".....	Champlain, P.Q.....	" ".....	5 00
4467	" 22.	Jas. W. Wedlock.....	Temporary.....	Beaufort, P.O., Ont....	Kingston, Ont....	2 00
4468	" 22.	Lewis R. Morton.....	4th Class.....	Kenora, Ont.....	Kenora, Ont....	5 00
4469	" 22.	Peter J. Holland.....	4th ".....	Port Arthur, Ont.....	Port Arthur, Ont..	5 00
4470	" 22.	Jas. H. Bennett.....	4th ".....	" ".....	" ".....	5 00
4471	" 22.	Charles Saunders.....	4th ".....	" ".....	" ".....	5 00
4472	" 22.	Wm. Thos. Faloona.....	3rd ".....	" ".....	" ".....	5 00
4473	" 22.	Angus A. Cameron.....	1st ".....	Owen Sound, Ont.....	Collingwood, Ont..	5 00
4474	" 22.	John Smith.....	2nd ".....	Collingwood, Ont.....	" ".....	5 00
4475	" 22.	Wm. S. Struthers.....	4th ".....	Owen Sound, Ont.....	" ".....	5 00
4476	" 22.	Chas. A. Gould.....	4th ".....	Maitlands, N.S.....	Halifax, N.S....	5 00
4477	" 22.	Byron Dickson.....	4th ".....	Pictou, N.S.....	" ".....	5 00
4478	" 22.	Jos. Fulthorpe.....	2nd " U.K.	North Shields, Eng....	" ".....	5 00
4479	" 22.	John Wm. Gunn.....	3rd ".....	Halifax, N.S.....	" ".....	5 00
4480	" 22.	James Downie.....	2nd " U.K.	" ".....	" ".....	5 00
4481	" 22.	Matthew G. Doyle.....	2nd ".....	" ".....	" ".....	5 00
4482	" 22.	Thos. A. Short.....	2nd ".....	Dartmouth, N.S.....	" ".....	5 00
4483	" 22.	William Morgan.....	3rd ".....	Hantsport, N.S.....	" ".....	5 00
4484	" 22.	John R. Christie.....	Temporary.....	Pictou Landing, N.S....	" ".....	5 00
4485	" 22.	John McDonald.....	3rd Class.....	Hantsport, N.S.....	" ".....	5 00
4486	" 22.	John Wm. Wilson.....	2nd " U.K.	Halifax, N.S.....	" ".....	5 00
4487	" 22.	Chas. Arnberg.....	4th Class.....	Pt. Edward, Ont.....	Toronto, Ont....	5 00
4488	" 22.	Howard S. Baldwin.....	Temporary.....	Sechelt, B.C.....	Vancouver, B.C....	2 00
4489	" 22.	Samuel E. Busbin.....	4th Class.....	Sarnia, Ont.....	Toronto, Ont....	5 00
4490	" 22.	Archie W. Smith.....	4th ".....	Leamington, Ont.....	" ".....	5 00
4491	" 22.	Arthur F. Foote.....	1st ".....	Toronto, Ont.....	" ".....	5 00
4492	" 22.	Chas. Jas. Kirkpatrick....	3rd ".....	Vancouver, B.C.....	Vancouver, B.C....	5 00
4493	" 22.	John Knight.....	2nd " U.K.	St. John, N.B.....	St. John, N.B....	5 00
4494	" 22.	Alex. D. Cameron.....	2nd ".....	Halifax, N.S.....	Halifax, N.S....	5 00
4495	" 22.	John K. O'Brien.....	4th ".....	" ".....	" ".....	5 00
4496	" 24.	Edward Clark.....	Temporary.....	Burks Falls, Ont.....	Toronto, Ont....	2 00
4497	" 24.	John Parsonson.....	4th Class.....	Toronto, Ont.....	" ".....	5 00
4498	" 24.	Albert J. Woodward.....	1st ".....	" ".....	" ".....	5 00
4499	" 24.	Jules Langevin.....	4th ".....	Montreal, Que.....	Montreal, Que....	5 00
4500	" 25.	Joseph Gaurin.....	4th ".....	St. Emelie Leclercville..	Quebec, Que....	5 00
4501	" 25.	Seraphin Garneau.....	4th ".....	St. Croix, P.Q.....	" ".....	5 09
4502	" 25.	Napoleon Lamothe.....	2nd ".....	Chicoutimi, P.Q.....	" ".....	5 00
4503	" 25.	George Duclos.....	3rd ".....	Bienville, P.Q.....	" ".....	5 00
4504	" 25.	Johany Bouchard.....	3rd ".....	Chicoutimi, P.Q.....	Chicoutimi, Que..	5 00
4505	" 25.	Ernest Tremblay.....	4th ".....	" ".....	St. Alphonse, "...	5 00
4506	" 25.	Henri Brisson.....	3rd ".....	" ".....	Chicoutimi, Que..	5 00
4507	May 2.	William Casper.....	Temporary.....	Pembroke, Ont.....	Pembroke, Ont....	2 00
4508	" 2.	Arthur Seguin.....	".....	Hudson, P.Q.....	Montreal, P.Q....	2 00
4509	" 2.	Arthur Ferrin.....	4th Class.....	Sorel, P.Q.....	Sorel, P.Q....	5 00

SESSIONAL PAPER No. 23a

INDEX.

	PAGE.
British Columbia Division—	
Steam vessels inspected &c., boilers and machinery	59
" " inspected in Canada but registered elsewhere.....	60 & 65
" " not inspected.....	61
" " added.....	73-74
" " lost, broken up &c	77-78
" " hull inspection.....	65
British Columbia and Yukon Division—	
Steam vessels inspected &c., boilers, machinery and hull inspection.....	62
" " " in Canada but registered elsewhere.....	64
" " not inspected.....	64
Chairman of Steamboat inspectors—Report of.....	1
East Ont., Kingston Division—	
Steam vessels inspected.....	24
" " " in Canada but registered elsewhere.....	26 & 30
" " not inspected.....	27
" " hull inspection.....	29
" " added.....	71
" " lost &c.....	76
Engineers' Certificates.....	79
Keewatin, Manitoba, and North West Territories Division—	
Steam vessels inspected &c., boilers, machinery and hull inspection.....	66
" " not inspected, boilers machinery and hull inspection	67
" " added.....	74
" " lost, broken up &c	77
Montreal, P. Q., Division—	
Steam vessels inspected boilers and machinery.....	31 & 35
" " " in Canada but registered elsewhere	32
" " not inspected.....	33 & 36
" " broken up &c.....	76
Nova Scotia Division—	
Steam vessels inspected (boilers and machinery).....	45
" " " in Canada but registered elsewhere (boilers and machinery) ..	47
" " not inspected (boilers and machinery).....	48
" " inspected &c., hull inspection	50
" " " in Canada but registered elsewhere (hull inspection).....	51
" " added.....	72
" " broken up &c.....	77
New Brunswick and Prince Edward Island Division—	
Steam vessels inspected &c., boilers and machinery.....	52
" " " hull inspection.....	57
" " not inspected boilers and machinery.....	55
" " inspected in Canada but registered elsewhere.....	54 & 58
" " added &c.....	72
" " lost or broken up, &c	77
Quebec Division—	
Steam vessels inspected, boilers and machinery.....	39
" " not inspected, boilers and machinery.....	41
" " inspected in Canada but registered elsewhere, boilers and machinery.....	40
" " added.....	72
" " lost &c	77
Quebec, Sorel and Montreal Division—	
Sorel Division—	
Steam vessels inspected (boilers and machinery)	37
" " not inspected.....	38
" " added, &c.....	72
" " inspected &c., hull inspection.....	43
" " inspected in Canada but registered elsewhere, hull inspection	44
Western Ontario, Toronto Division—	
Steam vessels inspected &c.....	7 & 9
" " " but registered elsewhere (boilers and machinery).....	8-12
" " not inspected, boilers and machinery.....	13
" " hull inspection	22
" " added &c.....	70
" " lost, broken up &c	75
Western Ontario, Collingwood Division—	
Steam vessels inspected &c., (boilers and machinery).....	16
" " " in Canada but registered elsewhere.....	18
" " not inspected.....	19
" " hull inspection.....	22
" " inspected in Canada but registered elsewhere, hull inspection	23
" " added &c.....	71
" " lost &c.....	75

