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لــا	Commentaires supplémentaires:	In Sessional paper No. 3, Eleventh annual report 30 <sup>th</sup> June, 1878 page lxxxi is incorrectly numbered page lxxx.			

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**⊕**F THE

# DOMINION OF CANADA

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	Further communication from Sandford Fleming, Esq., of the 12th February, 1879, in reference to his Report of the 1st February, 1879, on the Tenders received for constructing the Sections of the Canadian Pacific Railway, between English River and Keewatin.
No. 43n.	Report addressed to the Hon. the Minister of Public Works, Canada, by Sandford Fleming, Esq., C M.G., Engineer-in-Chief, respecting the Canadian Pacific Railway, 1879.
No. 43o.	Agreement between Joseph Upper & Co. and Her M. jesty the Queen to equip and work the Pembina Branch of the Canadian Pacific Railway, in lieu of Government, under agreement of 3rd August, 1878. of Geo. Stephen and St. Paul and Pacific Railway Company. (Not printed.)
No. 44 Manitoba:S	statement of the number of immigrants who have come to Manitoba under the auspices of the Immigration Agents during 1878. (Not printed.)
No. 44a	Return to Order; List of Patents issued in the various Parishes of the Province of Manitoba, for lands in the settlement belt. (Not printed.)
1	Return to Address; Order in Council by which certain lots of land on the

No.	44c		wing the number of Leases granted by the ron the Public Land of the Dominion within Red River, Manitoba. (Not printed.)
No.	44 <i>d.</i> .	Message transmitting certai tion of the Province of M	n papers having reference to the financial posi- anitoba.
No.	45		ort of the Engineers respecting the improve- arf at Rimouski, to render it mere convenient glish mails, &c. (Not printed.)
No.	46	ESQUIMALT GRAVING DOCK:—Return to Addr the Government of British the site, plant and mate proposed Esquimalt Grav	Columbia in 1878, "to grant to the Admiralty, rial on hand, and work already done" of the
No.	47		e Alexis Mercier, an officer of the Customs, , absented himself during the year 1878, with
No.	47a.	Edward H. Mercier, and Waiter at the Port of Mo	t shewing the number of days during which fficer of Her Majesty Customs, and a Landing outreal, absented himself during the year 1878, absence. (Not printed)
<b>N</b> 0.	48		teturn shewing the number of tons of bar iron and New Brunswick, for the year ended 31st ue for duty. (Not printed.)
No.	49	MACKEREL: - Return to Order; Correspondence in the waters of the Gul	e relating to the practice of mackerel seining f of St. Lawrence. (Not printed.)
No.	<b>5</b> 0	PURDY, CAPTAIN:—Return to Order; Corresp Purdy from the command	ondence referring to the dismissal of Captain 1 of the Government Steamer Newfield.
No.	51	COMMON PLEAS, ONTARIO, COURT OF:Genera for Ontario, under the "The Dominion Controv	l Rules made by the Court of Common Pleas Act of the Dominion of Canada, intituled, erted Elections Act, 1874." (Not printed.)
No.	52	SECRETARY OF STATE FOR CANADA:—Report o	f, for the year ended 31st December, 1878.
No.	53	CATTLE TRADE:—Return to Address:—Corres and Her Majesty's Imper United States, on the su cattle from America.	pondence between the Government of Uanada al Government and the Government of the bject of the importation into Great Britain of
No.	54	TEA, SUGAR, &c., DUTY ON:—Return to Orde February, 1879, on the a respectively. (Not printe	rticles of tea, sugar, wines, cottons and spirits,
No.	55	LACHINE CANAL, EMPLOYÉS:—Return to Order now permanently or temp printed.)	; Statement giving the names of all persons orarily employed on the Lachine Canal. (Not
No.		JORDAN BAY BREAKWATER:—Return to Order; water at Jordan Bay, in t	Tenders received for the erection of the Break- he County of Shelburne. (Not printe 1.)
No.	57	BRITISH COLUMBIA PANITENTIARY:—Return to A General in British Columbiary in that Province. (	oia, complaining of the Warden of the Peniten-
No.	58	CASCUMPRO HARBOR: - Return to Order; En improvement of Cascump	gineers' Plans and Reports, relating to the ec Harbor. (Not printed.)
No.	59	YAMASKA RIVER:—Return to Address; Report the improvement of navig	s of Engineers, during the year 1878, respecting ation on the River Yamaska. (Not printed.)
No.	60	READHARMOIS CAWAL EMPLOYES :- Return to Or	der; Shewing the number of persons employed and the number dismissed or pensioned since
No.	61	CORNWALL CANAL, HYDRAULIC LEASES:—Retur	n to Order; Beturn of all Hydraulic Leases on of printed.)

No. 6	2	CLARK, W. R. Esq.:—Confidential Memorandum from W. F. Whitcher to the Hon. J. C. Pope, Minister of Marine and Fisheries, on accountfyled by W. R. Clark, Esq., of Boston, U.S., for services in connection with the Fisheries Commission. (Not printed.)
No. 62	2a	Return to Address; Correspondence relating to the payment of \$10,000 to W. R. Clark, for alleged services rendered to the Canadian Government in connection with the Halifax Fishery Commission. (Not printed.)
No. 6	3	CAMPBELL, W. D.:—Return to Order; Copies of the lease of the rivers of the Seigniory of Bic, in the County of Rimouski, granted to W. D. Campbell, Esquire, Notary, of Quebec. (Not printed.)
No.	64	CANALS, U. S., FREE NAVIGATION OF:—Return to Address; Correspondence subsequent to a Return made on the 5th of April, 1876, respecting the action taken in denying to Canadians the free navigation of the United States or State Canals and the Hudson River.
No.	65	STATUTE LABOR:—Return to Address; Correspondence between the Dominion Government and that of the Province of Quebec, respecting the adjustment of certain statute labor (droits de corvée) in the Parishes of St. Fabien, &c., during the last General Elections. (Not printed.)
No.	66	St. John and St. Francis Rivers, Bridging of:—Resolutions of the Legislature of the State-of Maine, in relation to the navigation and bridging of the Rivers St. John and St. Francis, where said rivers are the line of boundary between the said United States and the Dominion of Canada. (Not printed.)
No.	67	NATIONAL INVESTMENT COMPANY OF CANADA: —Annual Report of, to 31st December, 1878. (Not printed.)
No.	68.	ACTIVE MILITIA, MILITARY DISTRICT No. 5:—Return to Order; Statement shewing the names of the officers, non-commissioned officers and men, forming No. 1 Company of the 21st Battalion of the Active Militia in Military District No. 5. (Not printed.)
No.	69	NAVIGATION, SCHOOL OF, QUEBEC:—Return to Address; Correspondence since 1872, between the Dominion Government of the Province of Quebec, in relation to a school of navigation at Quebec. (Not printed.)
No.	70	McClary, Peter:—Return to Order; Correspondence which led to the superannuation of Peter McClary, Collector of Inland Revenue, for the City of London, and East Riding of Middlesex. (Not printed.)
No.	71	Office, Dismissals from:—Return to Address; Correspondence between His Excellency  Lord Dufferin and the Members of the late Administration on dismissal  from office of those appointed in October and November, 1873; and also, appointments made between 17th September and 10th October, 1878.  (Not printed.)
No.	72	CANADA CENTRAL RAILWAY EXTENSION:—Return to Address; All contracts or agreements for the extension of the Canada Central Railway, since the 1st day of January, 1878; also, for the construction of the Georgian Bay Branch. Railway. (Not printed.)
No. 7	73	FIBHERY AWARD, APPROPRIATION:—Return to Address; Correspondence addressed by the Local Governments to the Dominion Government, upon the question of the appropriation of the Fishery Award.
No. 7	/3 <b>a</b>	Return to Address; Correspondence which has passed between the Local' Government of Prince Edward Island and the Government of the Dominion, having reference to the award of the Fishery Commission or to the disposal thereof.
No. 7	' <b>4</b>	ROBERTSON, WILLIAM:—Return to Order; Correspondence relating to the dismissal or replacement of William Robertson, Clerk of Works and Inspector under the contract for building the Penitentiary, Dorchester, N.B. (Not printed.)
No. 7	5	BONDED WAREHOUSES:— Return to Order; Return of all Merchandize remaining in the Bondedt Warehouses, by Provinces, on the 31st December, 1878; also, from the 1st January to the 31st March, 1879. (Not printed.)

No. 76... Collingwood, Harbor of:—Return to Order; Statement shewing the amount expended one. Harbor of Collingwood during the season of 1878. (Not printed.)

No. 77	IMPORTS AND EXPORTS:—Return to Order; Return of all Imports and Exports, by Provinces, for the six months ending 31st December, 1878; also for the months of January and February, 1879. (Not printed.)
No. 78	Customs and Excise Duties:—Return to Order; Return of the sum paid on account of Customs and Excise Duties during the month of February, 1879. (Not printed.)
No. 79	Punituntiary, St. John:—Return to Address; Correspondence relating to the claim of the City and County of St. John, to send prisoners under sentence for less than two years to the St. John Penitentiary.
No. 80	TASCHEREAU, THOMAS:—Return to Address; Correspondence between the late Administration and the Honorable Jean Thomas Taschereau, late Judge of the Supreme Court, respecting his superannuation, &c. (Not printed.)
No. 81	Supreme Court and Court of Exchequer:—Return to Address; Statement shewing the number of judgments rendered by the Supreme Court and the Court of Exchequer of Canada, and the number of employés of the said Courts.
No. 82	CARDINAL, REGIS:—Return to Order; Correspondence relating to the recent dismissal of Regis Cardinal, heretofore an employé of the Inland Revenue Department. (Not printed.)
No. 83	MORPETH HARBOR:—Return to Address; Correspondence relating to the construction of a Harbor at or near Morpeth, in the Electoral District of Bothwell, Ontario.
No. 84	Tin Cans, Duty on:—Return to Address; Correspondence relating to the duty imposed by the Government of the United States on Tin Cans containing Lobsters, &c. (Not printed.)
No. 85	QUARTZ MINING MACHINERY, B.C.:—Return to Order; Letters and telegrams received by the Minister of Customs, during the year 1878, from parties in British Columbia, in regard to the admission during that year into the said Province of Machinery for Quartz Mining, on the condition of security being given that the duties thereon would be paid within twelve months. (Not printed.)
No. 86	NORTH-WEST_TERRITORIES:—Ordinances passed by the Lieutenant-Governor and Council of the North-West Territories, on the 2nd August, 1878.
No. 87	LAYTON, RICHARD:—Return to Address; Correspondence with the Government relative to the appointing of Mr. Richard Layton as Warden of the Penitentiary in British Columbia. (Not printe!.)
No. 88	VOTES POLLED, GENERAL ELECTION:—Return shewing the number of votes polled for each Candidate in the different Electoral Districts during the late General Elections.
	CONTENTS OF VOLUME No. 10.
No. 89	CANADIAN VESSELS, LAKE MICHIGAN:—Return to Address; Correspondence in relation to Canadian vessels, bound for Lake Michigan, reporting at Port Huron instead of at Sheboygan, as is the practice at present.
No. 90	MILITIA, ACTIVE:—Return to Order; Transmitting the names, rank, &c., of all officers of the Active Militia who offered their services to Great Britain. (Not printed.)
No. 91	RIVER DU LOUP PIER:—Beturn to Order; Instructions given to the Engineer and Super- intendent, of works done on River du Loup Pier, in the County of Temisconata, in 1878. (Not printed.)
No. 92	Letter, Private:—Return to Order; Correspondence relating to the transmission during the recent Dominion Elections, of a certain letter, marked private and confidential, then on file in the Post vifice Department, Ottawa, to a voter in the East Riding of Northumberland. (Not printed.)
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No. 93... Drummondville, Wendover and Simpson Mails:—Return to Order; Shewing the distance traversed, and the amount paid for the carriage of the mails between Drummondville, Wendover and Simpson. (Not printed.)

No. 94 STEAM NAVIGATION	COMPANY:—Return to Order; Copies of contract for Mail Service with Steam Navigation Company of Prince Edward Island, at the time the Island entered Confederation. (Not printed.)
No. 95 PRITTIE, R. W.—Re	turn to Address; Order in Council, authorizing an arrangement to be made with Mr. R. W. Prittie, and others, relating to the introduction and settlement of settlers in the Province of Manitoba. (Not printed.)
No. 96 KETCHUM, MR., COR	RESPONDENCE:—Return to Order; Correspondence from the Warden of the St John Penitentiary, relating to the Inspector, Mr. Moylan's Report of the investigation of Mr. Ketchum, the Warden. (Not printe 1.)
No. 97 KETCHUM, MR., AND	INSPECTOR'S REPORT:—Return to Order; Copy of Inspector Moylan's Report of the investigation of the case of Mr. Ketchum, Warden of St. John, N.B, Penitentiary. (Not printed.)
No. 98 NEW BRUNSWICK, Go	OVERNMENT OF: —Return (in part) to Address; Correspondence between the Government of New Brunswick and the Government of the Dominion, relating to certain claims preferred by the former against the latter Government.
No. 99 RIMOUSKI, HARBOR O	OF REFUGE:—Return to Address; Correspondence respecting the non- appropriation by the late Administration of the sum of \$250,000, voted in 1874, for a Harbor of Refuge at Rimouski. (Not printed.)
No. 100. MERCANTILE MARINE	of Canada:—Return to Address; Documents relating to the examination before the Boards of Examiners of the Mercantile Marine of Canada of Masters desirous of obtaining certificates as extra Masters. (Not printed.)
No. 101 Tidal Harbor, Qui	EBEC, AND GRAVING DOCK, LÉVIS:—Return to Address; Return of the names of persons tendering for the construction of the works in the Tidal Harbor at Quebec, and the Graving Dock at Lévis, respectively.
No. 102. CARON, CLOVIS, FIS	MERY OVERSEER:—Return to Order; Copies of the complaint made last Autumn by Mr. Clement Rouleau, of St. Anne de la Pocatière, in the County of Kamouraska, against Mr. Clovis Caron, Fishery Overseer. (Not printed.)
No. 103 St. VINCENT DE PA	UL PENITENTIARY:—Return to Order; Statement shewing the names of the several permanent and temporary officers and employes of the Penitentiary of St. Vincent de Paul. (Not printed.)
No. 104 YARWOOD, C. St. (	George:—Return to Address; Correspondence respecting the superannuation of C. St. George Yarwood, Landing Water at Chippewa, County of Welland. (Not printed.)
No. 105 OLD BIC HARBOR:-	-Return to Address; Petitions presented since 1875, in relation to the improvements to be made in the Harbor, commonly called "Old Bic." (Not printed.)
No. 106. L'Assomption Rive	R:—Return to Order; Correspondence relating to the deepening of the River l'Assumption. (Not printed.)
No. 107. LANGELIER, CHARLE	s:—Return to Order; Statement of all money paid to Mr. Charles Lange- lier, for the use of his bridge on the Chambly Canal. (Not printed.)
No. 108 PRINCE EDWARD ISI	LE, CIVIL SERVICE:—Return to Order; Sessional Paper No. 73, (not printed) 1875, respecting dismissals from, and appointments to the Civil Service, in Prince Edward Island. (Not printed.)
No. 109. BRITISH COLUMBIA I	imports, &c.:—Return to Order; Shewing the quantities and values of the different articles of merchandize imported into British Columbia from other Provinces of the Dominion in 1878; also, the Exports, &c. (Not printed.)
No. 110. OOLUMBIA, FISHERIE	s of :—Return to Order; Sessional Paper 42 (not printed) 1877, respecting Fisheries of Columbia.
No. 111. North River and S	Et. Andrews:—Return to Order; Correspondence relating to the dredging of the North River to St. Andrews. (Not printed.)
No. 112. Grosse Isle, Public	C WORKS:—Return to Order; Contracts for public works, &c., on Grosse Isle, between the 15th November, 1873, and 1st January last. (Not printed.)

No. 113	Intercolonial Railway, Through Freight Rates:—Return to Order; Correspondence with the Intercolonial and Steamship Companies, with a view of obtaining through freight rates upon grain, as will constitute Halifax the winter shipping port of the Dominion.
No. 114	Indians, Chicoutimi, Vaccination of:—Return to Order; Instructions given to Dr. Lacombe of Chicoutimi, as to the vaccinating of the Indians of the County of Chicoutimi. (Not printed.)
No. 115.	Official Assigners, Queekc: —Return to Order; Statement of all moneys paid over by the Official Assignees of the Province of Quebec, under the provisions of the Act 38 Vic., Chap. 16, sec. 42. (Not printed.)
No. 116	VETERANS OF 1812-15:—Return to Order; Giving the names and residences of all the veterans of the war of 1812-15, who received a pension during the year 1878.  (Not printed)
No. 117	Hamilton, City of, Appointments:—Return to Order; Of the names of all persons appointed in the Inland Revenue Office, &c., in the City of Hamilton, between 4th November, 1873, and 10th October, 1878. (Not printed.)
No. 118	WOOD, HONORABLE CHIEF JUSTICE:—Return to Address; Report of all cases returned to the Government by the Honorable Chief Justice Wood, Commissioner under the Act 38 Vic., Chap. 53. (Not printed.)
No. (119	Public Property, Transfer of:—Return to Order; Papers relative to the sale or transfer of the Barracks at Fredericton, New Brunswick; also, relative to the lease of certain military properties for the purpose of constructing a Graving Dock at Quebec; also, relating to the transfer of certain military properties at Toronto for the purpose of erecting buildings for the Provincial Exhibition. (Not printed.)
No. 120	Spirits and Tobacco:—Return to Order; Return of the quantity of spirits, malt, malt liquor and tobacco, manufactured, &c., remaining in warehouse, and revenue accruing therefrom, from 1st January to 31st March, 1879. (Not printed.)
No. 121	CHENAL DO MOINE PIERS:—Return to Address; Correspondence respecting the construction of Piers to be built in the Chenal du Moine. (Not printed.)
No. 122	Prince Arthur's Landing and Kamivistiquia:—Return to Orier; Returns of numbers, ton- nage, and weight of general cargo of vessels that have entered and cleared from Prince Arthur's Landing and the Kaministiquia, respec- tively, during the season of 1878. (Not printed.)
No. 123	LADY HEAD STEAMER;—Return to Order; Minutes of the enquiry held as to the loss of the steamer "Lady Head," last autumn, and of the number of vessels the Government has at its disposal for the protection of our Fisheries (Not printe!.)
No. 124	SARAH E. BRYANT, STEAM TUG:—Return to Order; Correspondence in reference to the seizure of the steam tug, "Sarah E Bryant," of Buffalo, N. Y., by the Customs authorities at Dunnville.
No. 125	RIVER DU LOUP, FREIGHT:—Return to Order; Shewing the number of car loads of the different kinds of freight forwarded from River du Loup into the Maritime Provinces, &c.
No. 126	L'Ass MPTION RIVER, BRIDGE: —Return to Order; Correspondence relating to the construction of the bridge over L'Assomption River, at L'Assomption. (Not printed.)
No. 127	INDIAN LAND CLAIMS:—Return to Address; Correspondence in reference to the arrears due on account of Indian Lund Claims on Lakes Huron and Superior.
No. 128 .	GREEN OR ADAM'S ISLAND:—Return to Order; Instructions given to Mr. John Davidson, the Indian Agent at Dundee, respecting Green or Adams Island, in the St. Lawrence. (Not printed.)
¶o. 129	VACCINATION—INDIANS, SAGUENAY:—Return to Order; Instructions given to Or. F. X. Later- riere, of Chicoutimi, as to vaccinating the Indians of the County of Saguenay. (Not printed.)
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No. 130- Indians Engranceised:—Return to Order; Return of all Indians who have become enfranchised within the past ten years. (Not printed.)

- No. 131.. ALASKA BOUNDARY:—Return to Address; Memorandum of the circumstances that led to the conclusion of the Convention between Great Britain and Russia, of February, 1825, &c. Also, a copy of the most reliable maps and any Reports respecting the Alaska boundary. (Not printed.)
- No. 132. Amer Island Breakwater:—Return to Order: Estimates of cost of relaying the Stone
  Breakwater around Amet Island, in the Province of Nova Scotia. (Not printed.)
- No. 133. RIVER St. John, N.B.:—Return to Order; Correspondence in connection with Bridges placed across the River St. John, N.B., at Woodstock and at Andover, County of Victoria. (Not printed.)
- No. 134. ELLA G. McLean, Schooner:—Return to Order; Correspondence in any way connected with the chartering and purchase of the schooner "Ella G. McLean." (Not printed.)
- No. 135. Deschamps, Antoine: —Return to Order; Papers relating to the discharge of Antoine Deschamps, Light Keeper of St. Anne's, in the County of Jacques Cartier.

  (Not printed.)
- No. 136. SIMPSON, GRONGE B., AND SHERWOOD, W. H.:—Return to Order; Correspondence relating to the dismissal of George B. Simpson and the appointment of William H. Sherwood as Keeper of the main Lighthouse at Presqu'Isle Harbor. (Not printed.)
- No. 137... Pilors' Fund :—Return to Order; Petition of the Pilots, praying that the Pilots' Fund may be placed under the control of the Government, as it was formerly. (Not printed.)
- No. 138. SAUGEEN RIVER LIGHTHOUSE:—Return to Order; Correspondence relative to the erection of a Lighthouse at the mouth of Saugeen River. (Not printed.)
- No. 139. Richard, Mr.:—Return to Order; Correspondence relating to the resignation of Mr. Richard, Lighthouse Keeper at the Brandy Pots. (Not printed.)
- No. 140.. PRESQU'ISLE BAY LIGHTHOUSE:--Return to Order; Respecting the site and building of Lighthouse at Presqu'Isle. (Not printed.)
- No. 141... Cox, Mr.:—Return to Order; Reports in relation to the appointment of Mr. Cox, Keeper of the Lighthouse at Cape Beale. (Not printed.)
- No. 142.. RIVER St. LAWRENCE HARBORS: -Return to Order; Contracts for provisioning the Harbors in the River St. Lawrence. (Not printed.)
- No. 143. British Columbia Graving Dock:—Message transmitting certain papers having reference to advances to be made to the Province of British Columbia, for the construction of a Graving Dock.
- No. 144. Capes Tormentine and Traverse:—Report of Survey of Coast in vicinity of Capes Tormentine and Traverse, in Prince Edward Island, and a suggested Railway, with a view to secure Winter communication with the Island.
- No. 145. Mason, William:—Return to Address; Instructions to Solicitors by the Hon. Rodolphe Laflamme, as Her Majesty's Attorn-y General, against William Mason, and several others, for trespass upon lands of the Crown upon Presqu'Isle Peninsula. (Not printed.)
- No. 146 Miramichi, Marine Hospital:—Return to Order; Correspondence, "between 1st January, 1877, and 1st January, 1879." in reference to the Marine Hospital at Miramichi, New Brunswick. (Not princed.)
- No. 147... Presque'lele Peninsula, Free Grants:—Return to Address; Correspondence relating to the last survey and proposed sale or free grant of the lands upon Presqu'Isle Peninsula. (Not printed.)
- No. 148. Indian Agents, Manitoba:—Return to Address; Relating to the dismissal of Indian Agents and Indian Superintendents for Manitoba or the North-West Territories.

  (Not printed.)
- No. 149. LOUGHEAD, SAMUEL:—Return to Order; Relating to the dismissal of one Samuel Loughead, Postmaster at Molesworth. (Not printe L.)

No. 150	Talbot, Achille :- Return to Address; Complaint lodged on the 21st August, 1875, by Achille Talbot, Esq., late Deputy Post Office Inspector, against certain Postmasters in the County of Montmagny. (Not printed.)
No. 150a	Return to Address; Report made on 21st August last, by Achille Talbot, Esq., against Stansslaus Vallée, Esq., Postmaster at Montmaguy. (Not printed.)
No. 151.	WILKINS, JUDGE:—Return to Order; Correspondence in connection with the resignation of Judge Wilkins. (Not printed.)
No. 152	CENTENNIAL EXHIBITION, PHILADELPHIA:—Beturn to Order: Shewing the names, etc., of all persons appointed as Commissioners or Secretaries, in connection with the Canadian Exhibit at the Centénnial Exhibition, Philadelphia.
No. 153	Wereking and Coasting, Canadian Waters:—Return to Order; Correspondence relating to Wrecking and Coasting in Canadian waters.
No. 154	BERTHIER WHARF:—Return to Order; Statement shewing the number of men employed in repairing the wharf at Berthier, Montmagny, in each year since 1874.  (Not printed.)
No. 155	TARIFF DESPATCH: —Message; Despatch on the subject of the Tariff recently introduced to the Legislature.
No. 156	MITCHELL & Co., SUPPLIES:—Return to Order; Accounts, with prices of goods, etc., furnished to the Department of Marine and Fisheries by the late firm of Messrs.  Mitchell & Co., Montreal, etc. (Not printed.)
No 157	Custom Duties on Salt, etc.:—Return to Address; Correspondence on the Customs duties which the Government of Newfoundland levies on salt, barrels, etc., used in the Fisheries, on board Canadian vessels resorting to the coast of Newfoundland.
No. 158	Engineers Licensed in Canada:—Return to Address; For the names and residences of all Licensed Engineers in the Dominion of Canada. (Not printed.)
No. 159 l	NLAND REVENUE, P.O., AND CUSTOMS APPOINTMENTS, TORONTO:—Return to Order; Names of all persons appointed in the Inland Revenue, Post Office, and Customs House in the City of Toronto, between 4th November, 1873, and 10th October, 1878. (Not printed.)
Vo. 160	NORTHERN LIGHT' STEAMBOAT:—Return to Order; Tenders received for the building of the steamboat "The Northern Light," &c. (Not printed.)
Vo. 161	CANADA GAZETTE,' N B.:—Return to Order; Shewing the names of all officials in New Brunswick who are entitled to receive copies of the Canada Gazette.  (Not printed.)
To. 162 I	OIGHTH USES, RIVER ST. LAWRENCE, OILS:—Return to Order; Correspondence in relation to the furnishing of coal oil or other oils for the Lighthouses on the River St. Lawrence, in the Province of Quebec and in the Gulf, since 1873.  (Not printed.)
o. 163R	EPORT SAULT STE. MARIE RAILWAY:—Return to Address; Report and profiles of a survey for a line of Railway from Sault Sainte Marie eastward, made in 1871, by Mr. Murdoch, C.E.
o. 164 T	ENDERS, Public Works:—Return to Order; Statement shewing the dates upon which ten- ders were received for Public Works, &c., between the 1st November, 1873, and the 10th October, 1878.
o. 165R	YLAND, MR:—Return to Address Correspondence, relative to the claim of Mr. Ryland, for interest due him on the Canadian moiety of Chief Justice Carter's award. (Not printed.)
o. 166 W	ESTERN DEPARTMENTAL BUILDING—EXPENDITURE OF :— Beturn to Order; Statement shewing the total expenditure in detail, upon the addition made to the Western Departmental Building. (Not printed.)
o. 167R	DEAU CANAL DAMAGES:—Return to Order; Return of all claims for damages, caused by waters dammed back for the purposes of the Rideau Canal since 1st January, 1872. (Not printed.)

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# **ELEVENTH**

# ANNUAL REPORT

OF THE

## DEPARTMENT

OF

# MARINE AND FISHERIES

BEING FOR THE

FISCAL YEAR ENDED 30TH JUNE,

<del>-1878.=</del>

Uninted by Onden of Panliament.



OTTAWA:

PRINTED BY MACLEAN, ROGER, & CO., WELLINGTON STREET. 1879.

To His Excellency the Right Honourable Sir John Douglas Sutherland Campbell (commonly called the Marquis of Lorne), one of Her Majesty's Most Honourable Privy Council, Knight of the Most Ancient and Most Noble Order of the Thistle, Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George etc., etc., etc., Governor General of Canada, and Vice Admiral of the same.

## MAY IT PLEASE YOUR EXCELLENCY,-

I have the honour to submit herewith, for the information of Your Excellency and the Legislature of Canada, the Eleventh Annual Report of the Department of Marine and Fisheries, and the financial statements connected therewith, being for the fiscal year ended 30th June, 1878.

I have the honour to be,

Your Excellency's most obedient servant,

JAMES C. POPE,

Minister of Marine and Fisheries.

DEPARTMENT OF MABINE AND FISHERIES, OTTAWA, 1st January, 1879.

## ELEVENTH ANNUAL REPORT

OF THE

# DEPARTMENT OF MARINE AND FISHERIES,

BEING FOR THE FISCAL YEAR ENDED 30th JUNE, 1878.

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#### REPORT

OF THE

# DEPUTY MINISTER.

The Honourable J. C. POPE,

Minister of Marine and Fisheries.

Sir,—I have the honour to report on the transactions of this Department for the fiscal year ended 30th June, 1878, and to give an account of a considerable proportion of the business up to the end of the calendar year.

As required by law, the financial statements of the Department, given in the Appendices to this Report, are made up to the 30th June last; but the Report, more particularly on the Lighthouse Service, contains an account of the operations of this Department to the close of the calendar year. Three supplements will be issued with this Report, the first being a List of Lights in the Dominion on the 31st December last; the second embracing a Report of the Chairman of the Board of Steamboat Inspection for the calendar year, with a list of steamers inspected in 1878, and a list of Engineers who have received certificates; a Report of the Chairman of the Board of Examiners of Masters and Mates for the calendar year, with a brief list of all Masters and Mates who have received certificates of competency or service in the Dominion during the calendar year, and a complete list of all certificates which have been cancelled; statements of the wrecks and casualties, both to sea-going and inland vessels, during the calendar year; and statements of rewards for saving life; the Reports of the Harbour Commissions of Toronto, Montreal, Quebec and Pictou; the Harbour Masters' Reports; the Shipping Masters' Reports; the Port Wardens' Reports; the Reports of the Pilotage Authorities, and the Reports of the Water and River Police of Montreal and Quebec; and the third, embracing the Fisheries' Report.

The total amount expended on the various branches of the Public Service administered by this Department, including the salaries of the Establishment Staff during the fiscal year ended 30th June last, was \$983,645.59, while the total amount voted was \$1,001,804, which also includes the Departmental salaries.

The total number of persons engaged in the Outside Service of the Department at the close of the calendar year was 1,708.

The Lighthouse Service of the Dominion is comprised under the following Divisions, viz:—The Ontario Division, embracing Lights above Montreal; the Quebec Division, extending below Montreal, and including the River and Gulf of St. Lawrence; the New Brunswick Division; the Nova Scotia Division; the Prince Edward Island Division, and the British Columbia Division. The total number of Light Stations in the Dominion on the 31st December last, was 427, and of lights shown 518; the number of Steam Fog-Whistles and Automatic Fog-horns, 29; and the number of Light-keepers, Engineers of Fog-whistles and their assistants, with crews of Lightships was 499.

The following are the number of light-stations, of lights shown, of fog-whistles, and of automatic fog-horns in the Provinces of Ontario, Quebec. New Brunswick, Nova Scotia, Prince Edward Island and British Columbia, at 31st December of each year from 1868 to 1878 inclusive.

In these numbers are included three light Stations on the coast of Newfoundland, one light from each of which is shewn.

	Light Stations.	Lights Shewn.	Fog- Whistles.	Automatic Fog-Horns.
1868	198	227	2	•••
1869	219	233	2	•••
1870	240	278	4	
1871	264	297	8	•••
1872	280	314	13	•••
1873	316	<b>36</b> 3	17	•••
1874	342	384	18	•••
1875	377	444	22	•••
1876	407	488	24	•••
1877	416	<b>50</b> 9	25	2
1878	427	518	25	4

#### ONTARIO LIGHTHOUSE DIVISION.

This Division includes the lighthouses and lightships in that part of the Province of Quebec lying between Montreal and the boundary line between the Provinces of Ontario and Quebec, as also all the lights in the Province of Ontario, embracing the lights on the Ottawa River, the St. Lawrence River above Montreal, and Lakes Ontario, Simcoe, Erie and Huron, the Georgian Bay and Lake Superior. The number of lights in this Division at the close of navigation was 143, including both lighthouses and light beacons, four lightships maintained by the Government, and one lightship maintained in part by a subsidy from the Government. There are eighty-seven buoys and four beacons.

The number of lightkeepers in this Division paid directly by the Government, was 103; but in several cases assistants were employed by keepers at their own expense.

The Lights in this Division, excepting those on the Ottawa River, were inspected by the Superintendent of Lights during the months of July and August last and supplied with the necessary stores, and a Report of this inspection will be found in Appendix No. 3. In this Report it will be seen that the Lights, with some exceptions, were found to be in a satisfactory condition, and in general well cared for by the keepers.

The sum of \$7,207 90 was expended during the past fiscal year on the construction of Lighthouses in this Division, and details of this expenditure will be found in Appendix No. 14.

Reference was made in the Report of last year to the old lighthouse towers on the pier at Port Colborne having become unsafe, and a contract having been awarded to Messrs. Whiteacre and Moran for the construction of new towers. The sum of \$2,300 was expended on this work during the past fiscal year. The lighthouses have lately been completed, and the expenditure will appear in the accounts of the fiscal year ending 30th June, next. Owing to the importance of this Station, it was deemed advisable in the interest of navigation, to erect a fog-whistle on the pier in the main lighthouse, and one of the improved Champion fog-trumpets, manufactured at Quebec by the Champion Fog-Horn Company, has lately been placed at this Station, and will be put in operation at the opening of navigation next season. The sum of \$2,000 was appropriated for a fog-alarm at this Station by Parliament at its last Session.

The new lighthouse at Côteau Landing, to which reference was made in last year's Report, has been fully completed, at a cost of \$1,008.31, and details of this expenditure will be found in Appendix No. 14.

During the past fiscal year, as will be seen by reference to the accounts, the sum of \$1,789.49 has been expended on the new lighthouses at Battle and Lamb Island, Lake Superior, making the total cost of construction to amount to \$9,405.26.

During the past season it was found necessary in the interests of navigation to remove the four small lighthouse towers which marked the old channel below Ste. Anne Bout de l'Isle on the Ottawa River, and to erect four other towers to mark a new channel. A contract was entered into with Mr. Joseph White of Ottawa to remove the old ones and erect the new towers for the sum of \$1,400, and the work has been completed at a total cost, including new lanterns and lighting apparatus of \$2,194.05, as will be seen by reference to Appendix No. 14.

An appropriation of \$1,800 was made by Parliament at its last Session for the erection of a pier and lighthouse tower at Presqu'Isle Harbour, Northumberland County, and a contract was entered into with Mr. Roderick Cameron of Lancaster, to perform the work required for the sum of \$1,695. This included also furnishing and placing 30 cords of stone to protect the lighthouse on the east point. The lighthouse and pier have lately been completed, but owing to the lateness of the season, the new lights will not be shown till the opening of navigation. It is proposed to show a fixed red catoptric light, ranging with the old light on Salt Point, to indicate the entrance to Presqu'Isle Bay, through the new channel. The tower is square, built of wood, and is 22 feet high from the base of the pier to that of the lantern. The expenditure for this lighthouse will appear in the accounts of the present fiscal year.

An appropriation of \$1,500 was also made by Parliament at its last Session, for the crection of a lighthouse at Meaford to replace the temporary light shown from frame work, on the end of the breakwater. The contract was awarded to the Law Building and Manufacturing Company of Meaford, for the sum of \$875, and the lighthouse has been completed to the satisfaction of the Department. A fixed white light, elevated 42 feet above water, is shown from a square tower 23 feet high, erected on a block built on the end of the pier.

During the past season tenders were invited for the construction and placing in position of six day beacons and eight spar buoys at Parry Sound, in the District of Muskoka, for which an appropriation of \$1,300 was made by Parliament. The contract was awarded to Mr. T. R. Caton, of Parry Sound, for \$750, and the work will be completed shortly; and this expenditure appears in the accounts of the present fiscal year.

A contract has also been entered into with Mr. Richard Whiteacre, of Allenwood, for the construction of a lighthouse tower upon the pier at Port Dalhousic, Welland Canal, at a short distance from the present lighthouse, and it is expected that the lighthouse will be completed at the opening of navigation next season.

An appropriation of \$2,000 was made at last session of Parliament for the new lighthouse at Gore Bay, Manitoulin Island, in the District of Algoma, and the contract has lately been awarded to Mr. Richard Whiteacre, for the sum of \$1,890. The lighthouse is required to be completed by the 15th August, 1879.

Appropriations have also been made for the erection of new lighthouses at the west end of Long Point, Lake Erie, and at Kincardine, Lake Huron, and tenders will shortly be invited for these works.

It was found necessary in the course of last season to invite tenders for the renewal of the foundation under the lighthouse tower at Point Pleasant, Bay of xii

Quinte, and the contract for the work was awarded to Mr. George Newlands, of Kingston, for the sum of \$625. The work has been satisfactorily completed, and the expenditure will appear in the accounts of the present fiscal year.

It was also found necessary to invite tenders for the construction of a rip-rap breakwater to protect the lighthouse tower at Nottawasaga Island, near Collingwood, and the contract was awarded to Mr. Joseph White, of Ottawa, for the sum of \$950. The work is expected to be shortly completed.

Reference was made in the report of last year to the fact of its having been found necessary to erect a new breakwater at Rondeau, to replace that destroyed by violent storms. This work has been completed during the past season, and the sum of \$2,147.25 expended, as will appear by reference to Appendix No. 7.

During the past season it has been found necessary to erect a pier and boathouse at the new lighthouse station, on the outer end of the breakwater, Southampton Harbour, and the sum of \$914.93 has been expended on this work.

An elevated sidewalk has also been completed to the light on the north pier at Goderich, a gallery placed around the lighthouse, and repairs made to the breakwater protecting the main lighthouse; these works have involved the expenditure of \$2,596.38, as will appear by reference to Appendix No. 7.

On the 10th October last, the iron lightship No. 1, situated near Lachine, Lake St. Louis, was sunk by a violent gale. A contract was entered into with Messrs. Gaherty, Fréchette and Lefebvre, of Lachine, to raise the vessel for \$1,000, and the work has been successfully carried out. The vessel will be repaired during the present winter, and placed in her usual position on the opening of navigation next season.

By Crder in Council of the 4th May last, the sum of \$100 was allowed towards the maintenance of the light on the main pier at Port Darlington, established by the Port Darlington Harbour Company, and maintained by it for years past; the necessary supply of oil for the light to be also furnished by the Department.

The sum of \$100 has been also allowed during the past season to the Corporation of Owen Sound toward the maintenance of the two harbour lights, which have been maintained for some years past by the Corporation for the benefit of vessels entering that harbour.

The sum of \$700 was allowed, as customary, as a subsidy to Messrs. A. & H. Hackett, of Colchester, towards the expense of maintaining a lightship at Colchester Reef, Lake Erie. This amount is supplemented by private subscriptions from steamboat owners and others who are benefitted by the establishment of the lightship.

The following changes have occurred in the list of keepers of lights in this Division, since the date of last Report, viz:—

By Order in Council of the 25th February last, the salary of Mr. Charles Ead, light-keeper at Port Stanley, was increased from 1st July last, from \$275 to \$300 per annum, to cover attendance on the two lights at that Station.

By Order in Council of the 26th March last, the salary of Mr. G. B. Simpson, keeper of range lights at Presqu'Isle, was fixed at \$375, including charge of the buoys in the harbor, and he was relieved of the charge of the preservation of the standing timber on Presqu'Isle Peninsula, and the salary of Mr. H. Sherwood, keeper of the main light, was increased from \$325 to \$375, and the charge of the preservation of timber was intrusted to him.

By Order in Council of the 29th March last, Mr. George Curry was appointed keeper of the lighthouse on Isle of Coves at a salary of \$650 per annum in place of Mr. B. B. Miller, resigned.

By Order in Council of the 9th April last, the salary of Mr. Damase Caza, keeper of the lighthouse Port Lewis, was increased from \$100 to \$115 per annum.

By Order in Council of the 26th April last, the salary of Mr. David Cascaden, keeper of the shore range lights at Southampton, was increased from \$100 to \$150 per annum, owing to the arduous duties required of him.

By Order in Council of the 16th May last, the salary of Mr. Daniel Morrison, keeper of the range lights on Kaministiquia River, was increased from \$150 to \$200 per annum, the additional remuneration being for attending to the buoys on the channel at the mouth of the river.

By Order in Council of the 2nd and 28th September last, Mr. Wm. A. Grubb was appointed keeper of the revolving light at Point Peleé Reef, at a salary of \$500 per annum, and Mr. James Edwards, who had kept the light for a period of 20 years, was placed on the retired list with an annual allowance of \$196.

By Order in Council of the 2nd September last, Mr. Antoine St. Denis was appointed keeper of the new light at north-west end of pier, below St. Ann's Locks, at a salary of \$50 per annum. Mr. Joseph Pilon, keeper of the light on pier at south east end of New Channel, below the locks, at a salary of \$50 per annum. Mr. Henri Robillard, keeper of the light on Isle Perrot, at a salary of \$60 per annum, and Mr. Antoine Caron, keeper of the light at Caron's Point, at a salary of \$60 per annum.

The oil and other supplies for the lighthouses in this division, with the exception of those on the Lower and Upper Ottawa, were delivered in July and August last,

by the propellor "Celtic" of Hamilton, which was chartered by the Department, after public tender for the service for the sum of \$2,700. The service was performed to the satisfaction of the Department.

The total cost of maintaining the lights, light-vessels, fog-bells, buoys and beacons in this division for the last fiscal year was \$73,175.11, and the expenditure for construction of lights during the same period was \$7,207.90, as already stated.

#### QUEBEC LIGHTHOUSE DIVISION.

This Division comprises the lighthouses and lightships at and below Montreal, and on the Richelieu River, formerly under the charge of the Montreal Trinity House, as also all the lights, lightships, steam fog-whistles, buoys and beacons in the River and Gulf of St. Lawrence, Straits of Belle Isle, and north-west coast of Newfoundland. At the close of navigation there were in this division 137 fixed and revolving lights, eight lightships, three of which are supplied with steam fog-whistles, 9 steam fog-whistles and fog horns at light stations and lightships, 8 fog guns, 77 buoys, 54 beacons and 8 provision depôts for the relief of shipwrecked mariners. The number of persons in charge of all these was 177.

This division, which may be considered one of the largest and most important, has for some years past been under the management of Mr. J. U. Gregory, Agent of this Department at Quebec, who in addition to the lighthouses has also under his supervision several of the Dominion Steamers, and the Quebec River Police Force, and the Fisheries Protection Service. Mr. Gregory's report, giving full particulars of the different services under his charge, and showing the operations of his Agency for the fiscal year ended 30th June last, and also for a portion of the present year, forms Appendix No. 1 to this Report.

The light service between Quebec and Montreal, and in the River St. Lawrence, between Quebec and Point des Monts, was performed during the past season by the steamer "Druid," under command of Captain Marmen. The work of laying down, taking up and keeping in position, during navigation, the numerous buoys below Quebec, was also attended to by Captain Marmen.

The necessary supplies and provisions for the lights, fog-whistles and provision depôts in the Gulf and Straits of Belle Isle, were delivered by the Steamer "Napoleon III," under Captain Despres, two trips having been made for this purpose, one in July, and the other in September last.

During the past season no important changes have taken place in the lights below Quebec and Montreal.

An appropriation was made by Parliament at its last session of \$1,000 for the crection of five small beacon light towers on Lake Memphremagog, and tenders were invited and the contract for the construction of these lights was awarded to Mr. Nathan A. Beach, of Georgeville, for \$975. The towers have been built to the satisfaction of the Department, and the lights were shown for the first time in September last. Temporary keepers were employed to attend to them during the balance of the season, and were allowed remuneration for their services at the rate of one dollar per week during the time the lights were in operation.

Reference was made in the report of last year to the new lighthouse in course of construction on Greenly Island, Straits of Belle Isle. The lighthouse was satisfactorily completed last season, and the light put into operation on the 13th August last. The light is revolving, catoptric in its character, elevated 100 feet above high water mark, showing red and white alternately, and making a complete revolution in three minutes. It can be seen in clear weather 15 miles from all points of approach. The building is of wood, painted fawn colour, and consists of an octagonal tower 70 feet high from ground to vane of lantern, with keeper's dwelling attached.

The signal gun formerly used at Forteau has been established at this Station and is fired every half hour during fogs and snowstorms throughout the season of navigation. The sum of \$6,596.97 was expended on this lighthouse during the past fiscal year, making the total cost to amount, with previous expenditure, to \$8,621.97. It was proposed to establish a fog-whistle at this Station, and arrangements were made to remove the steam fog-whistle at Cape Ray, which had proved of comparatively little service to shipping, owing to its being placed in an unfavourable position. Representations were however made to the Department that the whistle would prove of much more service to vessels navigating the Straits of Belle Isle, if placed at Forteau, Point Amour, and it was accordingly removed and placed at Forteau and put into operation on the 8th August last. A blast of ten seconds duration in each minute is sounded during thick weather, fogs and snowstorms.

Reference was made in the Report of last year to the automatic Neptune foghorn erected at Point Rich on the coast of Newfoundland. This fog-horn has worked well during the past season and proved of great service to fishermen, but it is not sufficiently powerful to be of much service to ships and steamers.

The Woodward Fog-horn placed at Cape Ray has been of little use during the past season, as its working cannot be depended on, and it will be necessary to procure another horn, or discontinue the one altogether at this Station.

An appropriation of \$1,000 was made by Parliament at its last Session for the erection of a small lighthouse on the beach, on the Island of Belle Isle, and tenders will, in due course, be invited for this work.

The lightship stationed at the Upper Traverse, as reported last year, was found to be no longer serviceable, and tenders were invited for the construction of a new vessel. The contract was awarded to Mr. John M. Oliver of Quebec, for the sum of \$4,200, and a first-class vessel of the burden of about 100 tons was built and got in readiness to be dispatched to her Station on the 16th April last.

It was found necessary, as stated in last year's Report, to build a new lighthouse tower at Egg Island. The work has been satisfactorily completed, and the cost of erection as will appear by reference to Appendix No. 14 amounted to \$2,428 93

The following changes have occurred in the keepership, &c. of the lights in this Division since the date of last Report, viz.:—

By Order in Council of the 28th February last, the salary of Mr. Charles Bourget, keeper of Percé Lighthouse, was increased from \$100 to \$125 per annum.

By Order in Council of the 20th March last, the salary of Mr. Leon Lafleur, keeper of the Lighthouse at St. Antoine, was increased from \$140 to \$150 per annum.

By Order in Council of the 23rd May last, Mr. Louis Couillard de Beaumont was appointed keeper of the revolving light at Greenly Island, at a salary of \$400 per annum, with an allowance of \$200 to pay for the service of an assistant and gunner.

By Order in Council of the 17th July last, Mr. Jean Nadeau of Quebec, was appointed Assistant Superintendent of Lights for the Quebec District, at a salary of \$730 per annum; such appointment to date from 1st August last.

By Order in Council of the 29th September last, Mr. P. Godier, lighthouse keeper at Point Amour, Forteau, was also appointed Engineer of the fog-whistle lately established at that Station, at a salary of \$800 per annum for both services, he being required to pay for the services of a competent engineer to work the fog-whistle.

By Order in Council of the 5th October last, Mr. Wm. Thurber was appointed keeper of the lighthouse at St. Croix, at a salary of \$175 per annum, in the room of Mr. James Thurber, resigned.

By Order in Council of the 7th October last, Mr. Alphonse Richard was appointed keeper of Brandy Pots Lighthouse, at a salary of \$400 per annum, in place of Mr. Narcisse Richard, resigned.

By Order in Council of the 8th October last, Mr. Jean C. Marquis, jun. was appointed keeper of the Pilgrims' Lighthouse at a salary of \$340 per annum, in the room of Mr. J. C. Marquis resigned.

For further particulars as to the lighthouses, lightships, fog-whistles, buoys and beacons in this Division, reference may be had to the Report of the Agent in Appendix No. 1, and to the List of Lights, published as Supplement No. 1 to this Report.

The total amount expended from the general appropriation made by Parliament for the maintenance of lights, etc., in this Division, for the year ended 30th June last, was \$112,900.67.

The sum of \$12,776.47 was expended during the period referred to for the construction of lighthouses, from the general appropriation made by Parliament for that purpose.

# NEW BRUNSWICK LIGHTHOUSE DIVISION.

This Division embraces all the lighthouses, fog whistles, buoys and beacons on the coast of the Province of New Brunswick, and is under the charge of Mr. J. H. Harding, Agent of this Department at St. John, N.B. In this Division there were at the close of navigation 67 lights, including a lightship and 9 fog-whistles under the charge of 62 light-keepers and engineers.

The Report of the Agent of this Department, giving full particulars as to the lights and fog-whistles in this district and the repairs and improvements effected, will be found in Appendix No. 2.

Reference was made in last year's Report to the new lighthouse erected at Pea Point, L'Etang Harbour, Charlotte County. This lighthouse has been fully completed, and the light was shown on the 1st January last. The sum of \$1,382.41 was expended during the past fiscal year, making the total cost of the lighthouse to amount with previous expenditure, to \$1,905.17.

During the past season a lighthouse tower was erected on the outer end of the Breakwater at Negro Point, St. John Harbour, and a fixed red catoptric light shown on the 24th July last. The light is elevated 36 feet above high water mark, and in clear weather should be seen from all points of approach a distance of 8 miles. The tower is situated 50 feet from the end of the pier. It is an open framed building, painted white, surmounted by a lantern painted red, and is 35 feet in height from deck of pier to vane of lantern. The cost of this lighthouse amounted to \$2,274.84, as will be seen by reference to Appendix No. 14.

The new lighthouse on Machias Scal Island Light, Bay of Fundy, to which reference was made in the Report of last year, was completed during the past season, and a fixed white dioptric light of the third order exhibited on the 1st November last. The light is elevated 66 feet above high water, and in clear weather should be seen 14 miles. The tower which is situated 64 yards south-east from the west lighthouse, is an octagonal wooden building painted white and stands 53 feet high from base to vane. The sum of \$3,972.32 was expended on this lighthouse during the past fiscal year, making the total cost of lighthouse, dioptrie light, lantern, &c., to amount with previous expenditure to \$6,807.40.

Reference was made in last year's Report, to the new fog-tumpet erected on Grindstone Island at the entrance to Five Fathom Hole, Bay of Fundy. It will be seen by the Report of the Agent of this Department, that it was found necessary to procure a new boiler for the trumpet, as that supplied by the maker was too small for the purpose required. The sum of \$1,860.14 was expended on this trumpet and the erection of necessary buildings, during the past fiscal year, making the total expenditure to the 30th June, to amount to \$5,061.12.

The automatic Neptune fog-horn placed at Head Harbor Light Station, Campobello Island, Bay of Fundy, has not proved suitable for the Station, and has been discontinued. The sum of \$2,500 was paid to the Neptune Fog-horn Company for this horn.

During the past season, it was found advisable to change the character of the light at Cape Jourimain, Westmoreland, and to exhibit a flashing white light, instead of a fixed white light as formerly. A revolving apparatus was supplied, and the change carried into effect on the 15th June last. The new light should be seen from all points seaward, a distance of 14 miles.

An appropriation of \$1,500 was made by Parliament at its last Session for the erection of two range lighthouse towers, near the beacons, on the south beach at Richibucto, Kent County, N.B.; and tenders having been invited, the contract for their construction was awarded to Mr. Henry N. Peters, Builder, Kingston, for the sum of \$1,100. The work is at present being proceeded with, and the expenditure will appear in the accounts of the present year.

The sum of \$2,000 was also appropriated last Session for a new lighthouse at Musquash Harbor, County of St. John, and tenders having been invited forthe work, the contract was awarded to Mr. David Carrier, carpenter, of Upper Gagetown, for the sum of \$1,890. The work is now approaching completion, and the light will be exhibited in the course of a few weeks.

Tenders have also been invited for the construction of lighthouses at Salmon River; Grand Lake, Queen's County; Petit Rocher, Gloucester-County; and South Head and Grand Harbor, Grand Manan, for which works appropriations were made by Parliament at its last Session. The contract for Petit Rocher Lighthouse has been awarded to Mr. Joseph Morrison, of Petit Rocher, for \$350; and for South Head and Grand Harbor, to Messrs. H. H. Bowie & Co., of St. John; the former for \$1,500, and the latter for \$1.050.

An appropriation of \$1,500 was also made last Session, for the erection of a fog at Petit Passage, Charlotte County. Steps have been taken to procure for this Station one of the improved Champion fog-horns, manufactured at Quebec, at a cost of \$1,750; and as soon as the necessary building has been erected the alarm will be put in operation.

During the past season it was found necessary to invite tenders for the erection of a brick building to replace the old wooden building of the Partridge Island Fog Whistle. The contract was awarded to Mr. P. Carroll, of Chatham, N. B., for \$3,995, and the work is nearly completed.

The beacon lighthouses at Bathurst Harbour, Gloucester County, having been found unsuitable, a new tower has been erected during the past season, in place of the western tower, and the western one removed to the site occupied by the eastern or low tower (See page 87 of Report of Agent, Appendix No. 2.)

The following changes have occurred in the keepership of the lights and fogwhistles in this Division, since the date of the last Report, viz.:—

By Order in Council of the 28th February last, the salary of Mr. John Connors, keeper of the beacon light at Bathurst, was increased from \$100 to \$159 per annum.

By Order in Council of the 5th March last, Mr. Elijah Ross, of St. John, was appointed keeper of the light erected on Negro Point Breakwater, at a salary of \$200 per annum.

By Order in Council of the 20th March last, Mr. John R. Stiles, keeper of the lighthouse on Grindstone Island, was also appointed keeper of the fog trumpet recently erected there, and his salary fixed at \$700 with fuel, he being required to provide a competent engineer to work the fog-trumpet.

By Order in Council of the 20th March last, Mr. Abner Jones was appointed keeper of the beacon light on Hillsboro' Pier, at a salary of \$75, in place of Mr. John Beatty, deceased.

By Order in Council of the 28th September last, Mr. Timothy Daly was appointed keeper of the Miramichi Lightship, at a salary of \$700 per annum, he being required to procure the assistance necessary to keep the vessel, in place of Mr. George Rogers, deceased.

By Order in Council of the 8th October last, the salary of Mr. A. W. Bent, lighthouse keeper at Cape Jourimain, was increased from \$250 to \$300 per annum, owing to the increased labour required in attending the revolving light which was recently put in operation there instead of a fixed light.

A gratuity of two months' salary, amounting to \$66.66, was allowed under Order in Council of the 6th February last, to the widow of the late George Rogers, keeper of Miramichi Lightship, who died on the 9th November, 1877.

The total amount expended on account of construction of lighthouses, fogwhistles, &c., in this Division for the fiscal year ended 30th June last, was \$12,028.13, and the sum expended on maintenance of lights, fog-whistles, buoys and beacons, was \$54.220.90.

#### NOVA SCOTIA LIGHTHOUSE DIVISION.

This Division which may be considered as one of the most important in the Dominion, has been under the charge of Mr. H. W. Johnston, Agent of this Department at Halifax, since the organization of the Department in 1867, and detailed information as to the lights, fog signals, buoys and beacons, and the Dominion steamers "Newfield" and "Glendon," may be had in his Report, which forms Appendix No. 6 to this Report. At the present time there are in operation in this Division 110 lights, 9 fog-whistles, 1 lightship, 4 signal gun stations, 2 automatic signal boys, 6 large iron bell buoys, 5 stationary beacons and 263 iron and wooden can buoys and spar buoys, 3 humane establishments for the relief of distressed seamen, 7 life boat stations and 4 signal stations. The number of lighthouse keepers, engineers of fog whistles, and persons in charge of life boats, humane establishments and signal stations in this Division is 175.

During the past fiscal year important changes were made at the light station at Devil's Island, by the erection of a new tower, and showing two fixed white lights from two towers, instead of one fixed red light from a single tower as formerly. The sum of \$3,576.82 was expended on this work during the past year, as will appear by reference to Appendix No. 14, and the whole cost of the improvements will amount to \$4,770.07.

Reference was made in last year's Report to the new lighthouse in course of erection, on Isle Haute, Bay of Fundy. This building is now nearly completed, and the light will be put in operation on the 15th instant. The light is an intermittent, white catoptric light, visible for 40 seconds in each minute, elevated about 365 feet above high water mark, and in clear weather should be seen all around the horizon at a distance of 20 miles. The lighthouse which is almost hidden by trees is of wood and painted white, and consists of a square tower 53 feet high from base of building to vane on lantern, with a keeper's dwelling attached. The cost of this lighthouse, including lantern and revolving and illuminating apparatus, a mounted to \$5,920.36, as will be seen by reference to Appendix No. 14.

The new lighthouse at Pope's Harbour to which reference was made in last year's Report has been fully completed. The sum of \$2,772.40 was expended on this lighthouse during the last year, making the total cost to amount to \$3,109.81.

On the night of the 20th February, the Shelburne Harbour Lighthouse situated near Sand Point was destroyed by fire. Tenders will shortly be invited for the re-building of the lighthouse; an appropriation of \$2,000 having been made by Parliament at its last Session for the purpose.

During the past season, another automatic signal buoy surmounted by a ten inch whistle was placed off the entrance to Halifax Harbour, at a distance of six miles from the iron buoyof the same description. These two buoys are highly spoken of by captains entering the port, and will prove very helpful to navigation.

During the month of October last, the large bell buoy anchored off the Brazil Rock disappeared during a heavy gale, and although search was immediately made for it by the steamer "Glendon," all efforts to recover it have proved fruitless.

An appropriation was made by Parliament at last Session of \$2,000, for the crection of a lighthouse at Sheet Harbour in the County of Halifax. Tenders having been invited, the contract for this work was awarded to R. Rutledge and D. Drake of Sheet Harbour, for \$2,150, and it is expected that the lighthouse will shortly be completed and the light put in operation.

An appropriation of \$1,000 was also made for the construction of a lighthouse on Brooklyn Breakwater, Liverpool Bay; and this lighthouse has been constructed and the temporary light replaced on the 18th November last, by a light shown from a permanent tower placed on the outer end of the pier. The new light is fixed extoptric, showing white to seaward and green into the Harbour. It is elevated 32 feet above high water and should be seen ten miles from all points seaward. The tower is a square wooden building, 33 feet high and painted white. The cost of this lighthouse will appear in the accounts of the present year.

A light has also been established during the past season, in the tower of the new custom house at Pictou; an appropriation of \$250 having been made for this purpose. The light is fixed white catoptric, elevated 60 feet above high water, and should be seen 8 miles in clear weather. The cost of this light will appear in the accounts of the present fiscal year.

A new light has also recently been put into operation on the end of King's Port or Oak Point Pier, Basin of Minas, King's County, for which \$200 was appropriated last session. A fixed white catoptric light is shewn from a tower 26 feet high, and in clear weather should be seen at a distance of 8 miles. The cost will appear in the accounts of the present fiscal year.

Tenders have been invited for the construction of lighthouses at Wedge Island and Three Top Island, Guysborough County, for which works appropriations were made at last Session; those of Mr. Thomas O'Neill, of Salmon River, Guysborough,

were accepted, but he has lately declined to enter into the contract, and it may probably be found necessary to invite new tenders.

An appropriation of \$3,000 was also made for the erection of a lighthouse on Pease's Island, in the County of Yarmouth; and the contract, after calling for public tenders, was awarded to Mr. Israel Chute of Brookville, Digby, for the sum of \$1,848. The work will be completed next season, and the expenditure appear in the accounts of the present year.

Tenders have been invited for the constructions of beacon lights at the entrance of the Harbour au Bouche, Antigonish County, for which work \$1,000 was appropriated, but the contract has not yet been awarded.

The sum of \$3,000 was appropriated at last Session for the erection of a lighthouse near Point Michaux or St. Esprit Island, Richmond County, Cape Breton, and it is proposed shortly to invite tenders for this work.

The sum of \$2,000 was also appropriated for the erection of a fog horn on the coast of Lunenburg, and a Champion fog horn has been purchased for this purpose, at a cost of \$1,750, and will be erected on Cross Island, as soon as arrangements can be made.

On the 1st July last, the fog-whistle on the west end of Sable Island was discontinued. The boiler required large repairs and the expense of keeping it in operation was very heavy, and its usefulness as a signal was considered very doubtful, owing to its being situated so many miles from the danger.

The following changes have occurred in the keepership of the lights in this Division since the date of last Report, viz:—

By Order in Council of the 8th February last, the salary of Mr. Michael Wrayton, keeper of the lighthouse on Stoddart's Island, Shelburne County, was increased from \$100 to \$150 per annum.

By Order in Council of the 8th February last, the salary of Mr. Zebud Mulnes, keeper of the lighthouse at Mullin's Point, was increased from \$100 to \$150 per annum, as the salary was considered inadequate.

By Order in Council of the 9th April last, Mr. Samuel Massie of Halifax was appointed keeper of the lighthouse at Peggy's Point, Halifax County, at a salary of \$350 per annum, in the room of Mr. Crooks, deceased.

By Order in Council of the 9th April last, the salary of Mr. James Lloyd, keeper of Carter's Island light, was increased from \$200 to \$250 per annum, as the salary was considered inadequate to the duties required.

By Order in Council of the 16th May last, the salary of Mr. Robert Winton, light keeper at Guyon Island, was increased from \$400 to \$450 per annum, and an allowance of 10 tons of coal made for the service of the Station.

By Order in Council of the 22nd May last, Mr. Howard Palmer of LaHave, was appointed keeper of the lighthouse at Fort Point, LaHave, at a salary of \$200 perannum, in the room of Mr. William Palmer, deceased.

By Order in Council of the 23rd May last, the salary of Mr. B. Fulker, light-house keeper at Devil's Island, was increased from \$380 to \$500 per annum, owing to an additional lighthouse having been erected.

By Order in Council of the 17th June last, Dennis Gerrior of Tor Bay, was appointed keeper of the lighthouse at Tor Bay, at a salary of \$250, in place of Mr. Joseph Delory, resigned.

By Order in Council of the 8th August last, Mr. John H. Saulnier, of Clare, was appointed keeper of the light at Church Point, at a salary of \$200 per annum, in the room of Mr. Joremiah McLaughlin, resigned.

By Order in Council of the 23rd October last, Mr. Angus Beaton was appointed keeper of Pugwash Light, at a salary of \$300 per annum, in place of Mr. Rufus F. Bent, deceased. A gratuity of two months' salary, amounting to \$50 was allowed under Order in Council of the 18th November, to the widow of Mr. Bent.

By Order in Council of the 17th December last, Mr. John Perry of Sheet Harbour, was appointed keeper of the new lighthouse at Sheet Harbour, at a salary of \$500 per annum.

By Order in Council of the 20th March last, a gratuity of \$950 was granted to Captain Kendrick, who was obliged to resign his situation of Superintendent of Lights, owing to mental infirmity. Captain Kendrick has since died.

The total cost of the maintenance of lighthouses, fog-whistles, bubys and beacons in the Division, including the Humane Establishments on Lake St. Paul and Scattarie Islands, during the fiscal year ended 30th June last, amounted to \$132,261.82, and the amount expended during the same period out of the general appropriations for construction of lights was \$13,500.

# PRINCE EDWARD ISLAND LIGHTHOUSE DIVISION.

The Report of Mr. William Mitchell, Agent of the Department at Charlottetown. who also acts as Inspector of Lights, will be found in Appendix No. 4 to this Report.

In this Division there are at present 22 light stations, under the charge of 22 light-keepers. At seven of the Stations there are range lights in operation, making the total number of lights amount to 30.

An appropriation of \$1,600 was made by Parliament at its last Session for the erection of two range light towers at the entrance to St. Peter's Harbour, King's County. Tenders having been invited for the work, the contract was awarded to Mr. James Barclay, of Ellerslie, for the sum of \$550. The towers are now about completed, and the total expenditure for the work will appear in the accounts of the present year.

The sum of \$1,500 was also appropriated at last Session for the erection of new range lights at Murray Harbour, to replace the present beacons, which are found unsuitable. The contract for these towers has been awarded to Mr. Joseph Egan, of Mount Stewart, for the sum of \$850, and the work is being proceeded with.

An appropriation of \$4,000 was also made at last Session for the erection of a new lighthouse and pier at Indian Point, Summerside Harbour, and tenders will shortly be invited for the work, as also for the erection of new lights at Cove Head, Crapaud, New London and Orwell Harbours, for which appropriations were made by Parliament at last Session.

During the past season it was found necessary, in the interests of navigation, to change the character of the light at East Point, and substitute a revolving white light attaining its greatest brilliancy every three minutes, for the fixed white light formerly shown. As the tower was not sufficiently strong to sustain the weight of the new lantern and apparatus, material changes and improvements became necessary, and considerable cost was incurred in the work. The new light was put into operation on the 1st June last, and can be seen in clear weather at a distance of 17 miles from all points of approach. The cost of new lantern, revolving and illuminating apparatus, together with the work required to the lighthouse tower and other improvements, amounted to \$3,474.66, as will be seen by reference to Appendix No. 12.

The only change which has occurred in the keepership of the lights in this Division, since date of last Report, is that occasioned by the resignation of Mr. Lewis McDonald, lighthouse keeper at North Cape, and the appointment, by Order in Council of the 6th June last, of Mr. Peter H. Perry, in his place, at a salary of \$300 per annum.

By reference to Appendix No. 12, it will be seen that the sum of \$16,686.66 was expended during the last fiscal year in the maintenance of lighthouses, buoys and beacons, and \$2,504.47 in the construction of new lighthouses.

# BRITISH COLUMBIA LIGHTHOUSE DIVISION.

The lighthouses in this Division are under the supervision of Captain James Cooper, Agent of the Department at Victoria, and a detailed Report as to the condition of the lighthouses, buoys and beacons under his charge forms Appendix No. 5

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to this Report. The lighthouses in British Columbia number six, and there is one lightship. The number of lightkeepers and assistants is 14.

It will be seen, by reference to the Report of the Agent, that the lightship at Fraser River was capsized by a heavy gale on the 20th April last, and that it was found necessary to take the vessel into port for repairs. These repairs were carried out in the months of May and June, and it is expected that they will render the vessel effective for the next five years. Details of the expenditure for these repairs will be found in Appendix No. 13

Some repairs were also found necessary to the lighthouse at Entrance Island, which indicates the entrance to Departure Bay and Nanaimo, and particulars of these will be found in the Agent's Report.

No changes have occurred in the keepership of the lights since date of last Report.

The total cost of the maintenance of lights, buoys and beacons in this Division for the year ended 30th June last, amounted to \$18,948.78, as will be seen by reference to Appendix No. 13.

### OIL.

The oil required for the different Lighthouses in the Dominion, excepting for those in British Columbia, was supplied under contract during the past year by Messrs. F. A. Fitzgerald & Co., Union Petroleum Co., London, Ontario.

The lights in British Columbia with the exception of the Frazer River Lightship and Race Rocks Light, use petroleum oil; at Race Rocks and Fraser River, dog-fish liver oil, which is found to give a brilliant light and to answer every practical purpose, is now used instead of colza oil as formerly.

The contract with Messrs. Fitzgerald having expired, tenders were invited in February last, for the supply of 100,000 gallons, imperial measure, per annum, for one or three years at the option of the Department, of the best quality of double distilled, standard white, extra refined petroleum oil, to be non-explosive at a vapor test of 130° Fahr., and to have a specific gravity at 60° Fahr. of between 40° and 45° Baume, and in burning for 12 hours to produce a brilliant and purely uniform fame, neither crusting the wick, nor discolouring the chimney; oil to be delivered at Goderich, Hamilton, Montreal, Quebec, St. John and Halifax, in such quantities and at such times as the Department may desire. The tender of Messrs. F. A. Fitzgerald & Co., of London, being the lowest, was accepted, and a contract entered into with them for a term of three years, to supply oil of the quality specified at the following rates, viz: at Goderich at the rate of 21 cents per gallon, at Hamilton 21½ cents, at Montreal 22 cents, at Quebec 23½ cents, at St. John, N.B., 24 cents and

at Halifax, N.S., 24 cents per gallon. The quantity of oil supplied to the lighthouses above Montreal, during the past season, amounted to 17,322 gallons, to the lights in the Quebec District and on the north-shore of New Brunswick and Prince Edward Island 31,221, to the lights in the Bay of Fundy 12,212, and to the Nova Scotia lights 43,654 gallons, making in all 104,409 gallons.

#### DOMINION STEAMERS.

The steamers under control of this Department consist of the screw steamer "Napoleon III," the "Druid" paddle wheel; the "Newfield" screw; the "Glendon" screw; the "Sir James Douglas" screw; and two small steam launches "Dolphin" and "Wannonish," employed at Quebec in connection with the River Police Steamer, and for preserving order among the shipping, under the regulations of the Harbor Commissioners.

As will be seen by reference to the Report of the Agent at Quebec, the steamship "Napoleon III" has been employed during the past season in supplying the Light Stations in the lower portions of the Quebec District, the north shore of the River St. Lawrence, in the Gulf and in the Straits of Belle Isle, the north shore of New Brunswick and Prince Edward Island. During the past season two trips were made to all the principal stations in the Gulf, excepting those in New Brunswick and Prince Edward Island. A statement of the movements of this steamer from the 4th September, 1877 to the 5th June, 1878, will be found with the Report of the Agent.

The steamship "Druid" has been employed during the past season, in supplying the lights, &c., from Point des Monts to Montreal, and in laying down, taking up and keeping in position the numerous buoys below Quebec. She was also employed during a portion of last season on the service of His Excellency the Governor General and suite. A statement of the movements of this steamer from the 17th July, 1877 to the 30th June, 1878 will be found in the Report of the Agent.

The steamship "Lady Head" which was employed for a number of years past, in the service of this Department, unfortunately ran ashore while employed in the Fisheries Protection Service, on the night of the 10th August last, at Point Jaune near Fox River, Gulf of St. Lawrence, and became a total wreck. Ineffectual efforts were made to save the vessel, but after considerable expenditure, it was decided to sell her at public auction, after stripping her of her rigging, sails and anchors and furniture. The amount realized by the sale was \$650. An official investigation into the cause of the casualty was held by the Harbor Commissioners of Quebec, on the 24th, 25th and 30th September last, under the authority of an Order in Council, and the court, after taking evidence, decided to suspend the certificate of Cyprien Morin, who held the position of sailing master on board the vessel, for a period of six calendar months, and found that the first and second mates were incompetent to fulfil the duties they had to perform. This judgment of the court was duly confirmed.

The steamer "Newfield," as will be seen by the very full summary given in the report of the Agent at Holifax, Appendix No. 6, has been busily engaged in the lighthouse and fog whistle service since the date of last report, with the exception of a period extending from the 17th December till the 16th February, when she was employed in conveying goods to the Paris Exposition. This service was very satisfactorily performed.

The steamer "Glendon" during the past year, has been employed in the Nova Scotia division, attending to the Halifax buoy service, supplying coal to the Sambro Fog-Whistle Station and conveying supplies to the various lighthouses and fog whistles, and attending to the buoy service on different parts of the coast. A full statement of her service will be found in the report of the Agent at Halifax.

The steamer "Sir James Douglas," employed in British Columbia, has, as usual, during the past year attended to the light and buoy service in that Province. In consequence of telegraphic communication with Victoria being cut off by the submarine cable between the Islands of the San Juan group becoming defective, the steamer was employed during a portion of last season, in carrying messages for the senior officers of Her Majesty's Naval Forces, and the Provincial Government. She has also been employed in the repairing of the sub-marine cable referred to. The sum of \$1,677.23 was received as earnings during the past fiscal year, and deposited to the credit of the Receiver General.

The steamer "Richelieu" which was employed for a number of years in the lighthouse and buoy service of the Montreal Trinity House, and transferred to the Montreal Harbor Commissioners when that body assumed the duties of the Trinity House, was unfortunately sunk in 22 feet of water on the 22nd October, by colliding with the steamer "Rocket" near Cape Madeleine, about three miles below Three Rivers. An ex mination was directed by the Harbour Commissioners with a view to ascer ain the cost of raising the vessel, and the estimated cost of raising and putting the vessel in good condition was given as \$6,000. A careful examination and report of the condition of the boat made in 1876, valued her at \$5,000; so that as nearly as could be estimated, the wreck was not worth raising and repairing by \$1,000.

In the report of the Agent of this Department at Charlottetown, Appendix No. 4, will be found a statement of the work of the steamer "Northern Light," employed in maintaining communication during the winter season between Prince Edward Island and the mainland. It will be seen from this statement, that the steamer performed her trips between Georgetown and Pictou successfully from the 19th December 1877, to the 25th January 1878, when the Straits of Northumberland became filled with heavy drift ice, and the regular trips of the steamer prevented. On the 10th April, the vessel while attempting to make her way through the heavy ice, broke her propeller, and was disabled for further service. During the past season a new bronze propellor has been placed in the vessel at a cost of \$2,800, and the vessel axviii

has lately commenced running between Georgetown and Pictou, and performing her trips with regularity.

By reference to Appendix No. 35 it will be seen that the expenditure on account of this vessel in maintaining winter communication between Prince Edward Island and the mainland for the last fiscal year was \$25,704. The amount received for carriage of freight and passengers last season was \$2,832.85

The amount expended during the fiscal year ended 30th June last, as will be seen by reference to Appendix No. 15 for the maintenance of "Napoleon III," was \$22,272.59 and of the "Druid" \$12,112.55. For general accounts of both these steamers \$8,297.85. Steamer "Newfield" \$23,230.76, "Glendon" \$14,271.54, "Lady Head" \$5,525,35, "Sir James Douglas" \$12,193.40, making the entire expenditure \$97,904.05, exclusive of the expenditure of the "Lady Head" while employed in the fisheries protection service and the "Northern Light's" expenditure.

### HARBOR AND RIVER POLICE.

A river police force has been maintained for a number of years past at the ports of Montreal and Quebec, for the purpose of maintaining order among the shipping during the season of navigation and restraining crimping. Under the provisions of the Act 31 Vic. cap. 62, a tax of three cents per ton is imposed on all vessels arriving at these ports for the maintenance of the force, vessels of 100 tons and under being required to pay a tax once in each year, and vessels over 100 tons twice in each year.

Mr. R. H. Russell, who for 20 years past held the position of Chief of the River Police Force at Quebec, and also that of Shipping Master, owing to his advanced years was placed on the superannuated list, on the 16th May last, with a pension of \$705.60 per annum, and Mr. Benjamin Trudel was appointed in his place at a salary of \$1,200 per annum. Mr. Trudel's report, as Chief of Police, will be found in the Supplement No. 2 to this Report. This force, as customary, was sworn in on the 1st May last, and disbanded on the 30th November. It consisted during the last season of the Chief Constable, one Clerk and assistant in the Shipping Office, who receives a salary of \$1,000 per annum; one chief coxswain, who acts also as steersman of steamer-No. 1, at \$2.30 per diem; one steersman and six coxswains, at \$1.80 per day; 37 constables at \$1.50 per day, and two engineers and one assistant at \$50, \$45 and \$25 per month.

It will be seen by reference to the report of the Chief Constable, that during the past season the police steamers have performed the usual day duty, and that during the night the force is divided into crews, consisting of one coxswain and six constables who patrol the river. Warrants are executed on the river and on the shore by the force, and when necessary the Harbour Master or Assistant is furnished

with a steamer or boat. Crimping has been very effectually repressed, under the operations of the Act 36 Vic., Cap. 129, and but few breaches of the law have occurred during the past season. Owing to the existing commercial depression, the fleet visiting Quebec during the season was unusually small, and the duties of the Police were in consequence lighter than usual. 334 persons were arrested during the season by the Police, for various offiences, and a statement of the offences, and of the nationality of the parties offending, will be found appended to the Report of the Chief Constable.

The total amount expended at Quebec, in connection with this service for the fiscal year ended 30th June last, was \$23,498.06, while the dues collected for the same period amounted to \$21,258.00, showing a deficiency of \$2,240.06 in receipts as compared with expenditure.

A detailed statement of the expenditure of the River Police Force, showing the amount disbursed for pay and clothing, maintenance of the police steamers and contingencies, will be found in Appendix No.

The Water Police Force at Montreal, during the past season, consisted of the Inspector, one Chief Constable, four sergeants and nineteen constables, numbering twenty-five in all. The Chief Constable received at the rate of \$3.00 per diem, the Inspector \$2.50, the sergeants \$1.90, and the constables \$1.50 per diem. Chief Constable John McLaughlin, who had filled the position very efficiently for a number of years, died on the 8th Dec., 1877, and Mr. George Murphy was appointed to the position by Order in Council of the 10th of April, 1878, at a salary of \$3.00 per diem.

The report of Mr. H. S. A. Ormond, Inspector of the Force, for the fiscal year ended 30th June last, will be found in Supplement No. 2, together with a statement of the arrests, 234 in number, made during the year, and also a statement of the casualties on the wharves and in the harbour, that occurred during the year. During the past season the force maintained its usual efficiency and gave satisfaction.

The total expenditure on account of the Montreal Water Police for the past fiscal year, as will be seen by reference to Appendix No. 21, was \$14,062.08, while the amount of Harbour Police dues collected at Montreal during the same period was \$5,444.43, showing an excess of expenditure over receipts of \$8,617.65. The expenditure for this force during the preceding fiscal year was \$13,524.29, and the receipts amounted to \$5,085.90.

The total amount expended at Quebec and Montreal, on account of River Police-Service for the past fiscal year, was \$37,570.14, and the amount voted for the service-was \$37,590. The total amount collected at Quebec and Montreal during the year-ended 30th June last, was \$26,702.43, being \$1,895.67 less than the amount collected the preceding year, and the excess of expenditure over receipts amounted to \$10,857.71.

The receipts and expenditure on account of this service, during the past nine wears, are as follows, viz.:—

				Receipts.		Disbursements.	
For fiscal year	ended	30th June,	1870	\$23,996	68	\$18,461	83
"	"	"	1871	21,235	06	17,400	73
"	"	"	1872	27,215	80	20,348	00
"	"	"	1873	26,618	50	32,653	87
"	"	u	1874	28,650	39	38,897	52
"	"	"	1875	25,620	09	37,895	00
. "	u	"	1876	26,499	09	41,222	68
"	"	"	1877	28,598	10	35,006	37
66	"	"	1878	26,702	<b>4</b> 3	37,560	14
		•					<del></del> ,
				235,136	14	<b>\$</b> 279,446	14
Deduct receipts	from	expenditur	е	••••••	,	235,136	14
Excess of exper	nditure	e over recei	pts	*********	••••	44,310	00

#### SICK AND DISTRESSED MARINERS.

Under the provisions of the Act 38 Vic., Chap. 31, amending the Act respecting the treatment and relief of Sick and Distressed Mariners, vessels of greater burthen than 100 tons register are liable to pay a duty of two cents per ton three times in one year, instead of twice as formerly; vessels of 100 tons and under paying twice in each year, and the effect of this amendment has been to increase to some extent the receipts of the Sick Mariners' Fund. During the year ending the 30th June tast, the receipts amounted to \$14,665.07, being an increase over the receipts of the preceding year of \$925.88.

As the Sick Mariners' Act does not apply to the Province of Ontario, no dues are collected for vessels in that Province and no expenditure for sick seamen in Ontario consequently appears in the Public Accounts. A grant of \$500 has however been made for some years past towards the General and Marine Hospital at St. Catharines, and to the General Hospital at Kingston, as sick seamen are received and cared for in these institutions. In the Province of Quebec the expenditure on account of sick and distressed seamen, including the total expenditure for the Marine and Immigrant Hospital at Quebec, amounted to \$23,108.96, as will be seen by reference to Appendix No. 30. Of this sum \$579 was expended on account of shipwrecked and istressed seamen, and \$527.36 for sick seamen at Ports other than those of Montreal and Quebec.

At the Port of Montreal, sick seamen are cared for at the General Hospital under an arrangement made by the Department, by which 90 cents per diem is paid

for each seaman, including both board and medical attendance. The number of seamen treated at this Hospital, for the year ended 30th November, 1877, was 136 and the amount paid was \$2,015.10. The amount of sick mariners' dues collected at the Port of Montreal for the fiscal year ended 30th June last, was \$2,480.08.

At the Port of Quebec, sick seamen are provided for at the Marine and Immigrant Hospital. The sum of \$20,000 was appropriated by Parliament for the maintenance of this Hospital, and the amount expended for the last fiscal year was \$19,987.50 as will be seen by reference to Appendix No. 28. The usual grant of \$2,666.67 was received from the Government of Quebec, and \$361 from paying patients and rent of beach lots, making the total amount deposited to the credit of the Receiver General \$3,027.67, thus reducing the cost of maintenance to the Government of the Dominion to \$16,959.83. In this sum the cost of maintaining sick immigrants as well as seamen, is included, and estimating the cost of immigrants, of whom there were six in the Hospital having 58 days' treatment at \$133.85, the cost of sick seamen would amount to \$16,825.98. By reference nowever to the Report of the Resident Physician (See Appendix No. 28), it would appear that during the year ended 30th June last, out of 929 patients received, 518 were seamen having 7,291 days' treatment, six were immigrants having 58 days' treatment, and 405 were residents of Quebec having 15,805 days' treatment in the Hospital. As stated therefore in previous Reports, the contribution made towards the institution by the Government of Quebec, and which was reduced from \$4,000 to \$2,666.66 in 1875, is altogether inadequate towards the support of residents in the Hospital. A fair proportion of the cost of the Institute for the last fiscal year would be as follows: for seamen \$6,293.89, for immigrants \$50.07 and for residents \$13,643.54. Taking into consideration the total number of days spent in the Hospital by sailors, immigrants and residents of Quebec, viz., 23,154, the cost of maintaining each patient per diem, viz., 863c. does not appear to be excessive.

The amount of sick mariners dues collected at the Port of Quebec during the last fiscal year, was \$14,604.40, being \$1,119.52 less than that of the preceding year, and the total amount of dues collected in the Province of Quebec for the same period was \$18,901.84, instead of \$19,896.85 collected in the preceding year. The expenditure for sick seamen at the different Ports in the Province, for the last fiscal year, estimating the actual charge to the fund for the Marine Hospital at Quebec at \$16,825.98 as above stated, amounts to \$19,947.44, shewing an excess of expenditure over receipts of \$1,045.60. This is owing however to the heavy expense incurred in maintaining the residents of Quebec in the Marine Hospital for such an inadequate remuneration.

The expenditure on account of sick and disabled seamen in the Province of New Brunswick, amounted during the last fiscal year to \$10,350.41, and for shipwrecked and distressed seamen \$388.03, making a total expenditure of \$10,738.44, while the

receipts for the same period amounted to \$11,407.35, showing an excess of receipts over expenditure of \$668.91. Marine Hospitals are established in New Brunswick at the Ports of St. John, St. Andrews, Miramichi, Richibucto, Bathurst and Sackville, and returns are received weekly from the physicians in charge as to the number of patients. From these Returns, it would appear, that the average weekly number of patients at the different Hospitals is as follows, viz.: St. John Marine Hospital 10; Miramichi, 6; St. Andrews, 11/4; Richibucto, 11/2; and Sackville, 2.

By reference to Appendix No. 30, it will be seen that the expenditure on account of these Hospitals for the past fiscal year, was as follows: St. John Marine Hospital \$4,915.37; Miramichi, \$2,059.94; St. Andrews, \$640.53; Bathurst, \$131.90; Richibucto, \$665.68; Sackville, \$1,212.90, while the expenditure at the other ports of the Province, where no hospitals existed, amounted to \$730.89. The collection of sick mariners' dues at the Port of St. John for the past fiscal year amounted to \$5,025.34.

In the Province of Nova Scotia, Marine Hospitals have been established at the Ports of Sydney and Yarmouth. At other Ports, sick seamen are cared for by the Chief Officer of Customs, except at Halifax, where they are admitted into the Provincial and City Hospital, under special arrangements made with the managers, by which \$5 per week is paid for the board and medical attendance of each seaman.

By reference to Appendix No. 30, it will be seen that the sum of \$2,322.37 was paid to this hospital during the last fiscal year for this service. The cost of maintenance of the Marine Hospital at Sydney for the past year amounted to \$1,892.99. The total amount expended for sick and disabled seamen in the Province of Nova Scotia during the past fiscal year amounted to \$11,395.47., and for shipwrecked and distressed seamen, to \$2,979.85, making the total expenditure amount to \$14,375.32, being \$4,124.68 less than that of the preceding year. At the Port of Halifax the collections for the past year amounted to \$4,122.46, and the total receipts for the same period throughout the Province amounted to \$10,923.47. It will thus be seen that there was an excess of expenditure over receipts of \$3,451.85.

In the Province of Prince Edward Island, the expenditure on account of sick and disabled seamen during the past fiscal year amounted to \$1,227.11, and for distressed seamen to \$705.51, making a total expenditure of \$1,932.62, while the collections to the Sick Mariners' Fund for the same period amounted to \$820.16, showing an excess of expenditure over receipts of \$1,112.46. Marine Hospitals have been established at the Ports of Charlottetown and Souris. The cost of maintenance of the hospital at Charlottetown during the past year amounted to \$1,227.11, and of that at Souris, including expenditure at other outports, to \$705.51. During the last fiscal year 64 seamen were admitted into the hospital at Charlottetown, which consists of a small rented cottage, and is not considered suitable for the purpose required. The

hospital at Souris was built for the purpose, and has only been in use during the past season.

In the Province of British Columbia the sum of \$3,827.28 was expended during the past year for sick and disabled seamen, and the collection for the Sick Mariners' Fund for the same period amounted to \$2,612.25. A Marine Hospital is established at Victoria, and 45 seamen were admitted during the past fiscal year as will bee seen by referring to the Agent's report. The cost of maintenance amounted ed to \$2,060.95. A report has also been received from the Medical Superintendent.

During the past fiscal year the sum of \$2,491.98 was paid to the Imperial Board of Trade, to reimburse expenses incurred in caring for shipwrecked and distressed Canadian seamen of Canada in foreign ports.

The total expenditure by this Department, on account of sick, disabled ship. wrecked and distressed seamen, during the past fiscal year, including the grant of \$500 to each of the hospitals at St. Catherines and Kingston, and the entire expenditure on account of the Marine Hospital at Quebec amounted to \$57,474.60, being \$4,940.92 less than that of the preceding year, and \$7,275.40 less than the amount appropriated by Parliament for the service. It will be seen, however, that as the entire collections of sick mariners' dues amounted only to \$44,665.07, the excess of expenditure over receipts amounted to \$12,809.53 for the past fiscal year. Should a deduction, however, be made of the fair proportion of expense of maintaining residents and immigrants in the Marine Hospital at Quebec, which amounts, as stated above, to \$13,693.61, the expenditure would amount only to \$43,780.93, and there would be an excess of receipts over expenditure of \$884.08.

The receipts and disbursements in connection with this service during the last ten fiscal years were as follows:—

J				Receipts.	Disbursements.
For fiscal year	ended 30th June,	1869	•••	<b>\$</b> 31,353 <b>7</b> 8	<b>\$2</b> 6,987 64
do	do	1870		31,410 46	27,029 34
do	do	1871	•••	29,683 41	28,971 22
do	do	1872	•••	34,911 64	38,947 60
do	do	1873	•••	37,136 10	41,016 43
do	do	1874	•••	41,500 16	59,778 90
do	do .	1875	•••	37,801 46	50,684 76
do	do	1876	•••	41,287 66	46,828 49
do	do	1877	•••	43,739 21	51,647 94
do	do	1878	•••	44,665 07	43,780 99
				<b>\$</b> 373,488 95	<b>\$</b> 415,673 31
					373,488 95
	Balance to del	oit of F	und.	••••••	<b>\$</b> 42,184 36

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### IMPROVEMENT OF HARBOURS.

Under the provisions of the Act 32 and 33 Victoria, cap. 40, a tax of ten cents per ton was formerly imposed for the improvement of harbours, on all vessels arriving at the Ports of Bathurst and Richibucto, N.B., Amherst and House Harbour, Magdalen Island, and Cape Chatte, Quebec; these ports having been proclaimed to be under the operation of the Act referred to. By Order in Council of the 7th May 1877, the tonnage duty was reduced to four cents for every ton of the registered measurement of vessels entering the ports in question.

By Order in Council of 1st May 1877, the Port of Southern Bay, Ingonish, in the County of Victoria, N.S., was proclaimed under the operation of the Act, and a tonnage duty of six cents per ton, imposed on all vessels entering that port.

The amount collected at the different ports under the operation of the Act, for the year ended 30th June last, was as follows:—

Cape Chatte, Gaspé	<b>. \$</b> 5.90
Amherst and House Harbour, Magdalen Island	185.30
Bathurst, N.B	443.52
Richibucto, N.B	1331.20
South Bay, Ingonish	

**\$**1,955.92

The amount collected for the year ended 30th June, 1877, was \$2,397.26.

The only expenditure incurred during the past fiscal year was \$51.50 at South Bay, Ingonish.

At the port of Cow Bay, in the County of Sydney, N.S., the sum of \$3,931.45 was collected under the provisions of the Act 37 Vic. chap. 18, which authorized the purchase of the pier or breakwater at that place, and provided for its maintenance. This amount is made up of tonnage dues, at the rate of six cents per ton of the registered tonnage of each vessel entering the harbour, and of wharfage dues levied and collected on merchandise, landed on the pier. The rates are fixed at three cents per barrel and a proportionate rate on all other goods or packages.

### STEAMBOAT INSPECTION.

The Report of the Chairman of the Board of Steamboat Inspection for the year ended 31st December last, will be found in Supplement No. 2 to this Report, together with statements showing the names of engineers examined and to whom certificates had been granted and renewed, the amount of fees paid for such certificates, the steamboats inspected, and the amount of duties and fees collected; also statements showing the steamboats added to the number in the Dominion and those broken uplost, or rendered unfit for service during the year. From this Report and statements it will appear, that during the last calendar year there have been issued 1,178

certificates against 1,202 issued the previous year, showing a decrease of 24 for the year just closed. The certificates granted are classed as follows: First class engineers 68; second class 149; third class 201; first class assistant 340; second class assistant 177; third class assistant 118; limited and confined to special stramers 125. The sum of \$2,870 was received by the chairman as fees for certificates, and deposited to the credit of the Steamboat Inspection Fund, being a decrease of \$173 in the amount received for the calendar year 1877.

The total number of steamers inspected during the calendar year was 771, having a gross tonnage of 155,064 tons and 94,377 tons register. Of this number 224 were inspected in West Ontario, Huron and Lake Superior Division, 99 in East Ontario Division, 132 in the Montreal Division, 60 in the Three Rivers Division, 103 in the Quebec Division, 108 in the Maritime Provinces, 33 in British Columbia, and 11 in the Manitoba Division. Of the 771 steamers inspected, 300 were paddlewheel, 470 screw; 333 passenger, 80 freight and 358 tug steamers.

During the last calendar year there were added to the list of steamers in Canada, 58 new steamers, having a gross tonnage of 6,725 tons and 4,354 tons register. During the same period 38 steamers were lost, broken up or put out of service, having a gross tonnage 3,785 tons and 2,576 tons register. This shows a gain in steamers of 20 and of gross tonnage 2,940 tons and 1,778 tons register. The principal increase in new steamers has been in the West Ontario and British Columbia and Manitoba Divisions, 31 out of 58 steamers having been built in these Divisions.

The amount received during the last fiscal year, on account of tonnage dues, inspection of steamboats and certificates to engineers was \$12,431.25, of which sum \$9,323.25 was for tonnage dues and inspection fees and \$3,108 for certificates to engineers. This shows a decrease in receipts as compared with the preceding year of no less a sum than \$3,498.17 in tonnage dues and inspection fees, and of \$30 in fees for certificates, or a total decrease of \$3,528.17. This decrease is owing to the very great reduction which was made in the rate of tonnage duty, which was fixed by Order in Council of 22nd May 1877, at 4 cents instead of 7 cents for every ton which a steamboat measures, and which came into operation on the 1st July, 1877.

The expenditure for steamboat inspection during the past fiscal year, as will be seen by reference to Appendix No. 16, amounted to \$13,228,23, and as the receipts amounted only to \$12,431.25; there is a deficiency for the past year of \$797.03.

A statement of the different casualties which occurred in the respective divisions will be found detailed in the report of the Chairman. It will be seen that a loss of two lives occurred in the district of Ontario, but these casualties do not appear to be caused by any failure in the matter of inspection, but in one instance, perhaps, to have been owing to over-crowding on a steamer. The Chairman states that numerous

complaints have been made to him in regard to over-crowding on ferry and excursion steamers, and that a necessity exists for providing some security against the dangers occasioned thereby.

He also reports that during the past season no complaints have been made to himby owners or masters of steamboats against inspectors in the discharge of their duties, and but few against engineers.

It will be seen by the following comparative statement of receipts and expenditure on account of Steamboat Inspection Fund for the past nine fiscal years, that during that period the entire receipts, \$122,731.43, have exceeded the expenditure, \$97,300.26, by the sum of \$25,431.17, which remains as a balance to the credit of the fund.

			Receipts.	Expenditure.	
For fiscal year	ended 30th June,	1870	\$12,521 29	<b>\$7,399</b> 18	
do	do	1871	10,369 96	8,321 00	
do	do	1872	11,710 43	8,500 00	
do	do	1873	15,412 75	11,205 54	
do	do	1874	15,603 19	10,291 58	
do	do	1875	15,011 <b>9</b> 0	12,199 81	
do	do	1876	13,811 24	13,081 86	
do	do	1877	15,859 42	13.073 01	
do	do	1878	12,431 25	13,228 28	

**\$122,731 43 \$97,300 26 97,300 26** 

Excess of receipts over expenditure.... \$25,431 17

#### CERTIFICATES TO MASTERS AND MATES.

The Report of the Chairman of the Board of Examiners of Masters and Mates for the calendar year ended 31st December, 1878, will be found in Supplement No. 2, to this Report. During the past calendar year, as will be seen by reference to the Report, the Board of Examiners have held meetings for the examination of candidates at the Ports of Halifax, N.S., St. John, N.B., Charlottetown, P.E.I., Quebec and Yarmouth, N.S. At the Port of Halifax twelve meetings were held, twelve at St. John, four at Charlottetown, three at Quebec, and six at Yarmouth. At Halifax the number of masters who succeeded in passing and obtaining certificates of competency was 27, and the number of mates 16, while 5 candidates failed as masters, and 3 as mates. At the Port of St. John 27 candidates passed for the grade of master, and 29 as mates, while 19 failed as masters, and 12 as mates. At the Port of Charlottetown 9 candidates passed for the grade of master and 2 as mates, while 3 failed as masters. At the Port of Quebec 4 candidates passed for the grade of

master, and 3 as mates, while 2 failed as master. At the Port of Yarmouth 12 candidates passed for the grade of master, and 5 as mates, while 6 failed as master and 1 as mate. It will thus be seen that during the past year, out of 112 candidates that presented themselves at the ports named for examination as masters, 79 succeeded in passing and 33 failed, and that out of 73 that applied for examination as mates, 55 passed and 18 failed.

The number of candidates who have passed and obtained masters' certificates since the Act went into operation, viz:—16th September, 1871, to 31st December, 1878, is 947, and the amount paid for these certificates, at the rate of \$10 each, \$9,470.

During the same period 331 candidates received certificates of competency as mates, and the amount paid at the rate of \$5 each, was \$1,655.

In the supplement referred to a list will be found of all who have obtained certificates of competency and service, either as master or mate, during the year ended 31st December, 1878.

During the calendar year eight certificates of service for the grade of master, and nine for that of mate have been granted.

The total number of certificates of service issued since the Act came into operation is 821 for the grade of master, and 288 for that of mate, making a total of 1,109 certificates granted. These certificates, as stated in previous Reports, are granted to masters and mates who are unable or unwilling to undergo examination for certificates of competency, and who have held situations as masters and mates previous to 1st January, 1870, and can produce certificates of experience and general good conduct. The fee charged for certificates of service is at the rate of \$5 for master, and \$3 for mate.

The fees received on account of certificates of competency and service during the fiscal year ended 30th June last, was \$1,296.50, and the amount expended on account of this service, as will be seen by reference to Appendix No. 17 to the General Report, was \$4,249.76. The amount voted by Parliament for this service was \$4,250, leaving an unexpended balance of 24 cents, which reverted to the Treasury.

A list of certificates cancelled during the last calendar year will also be found in Supplement No. 2 to this Report.

Mr. F. W. Hyndman, who was appointed an Examiner of masters and mates at Charlottetown on the 10th June, 1376, resigned his office on the 17th March, 1877 and his resignation was accepted. The other Examiner, Captain Roderick Cameron still continues to discharge the required duties at that port.

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It was represented to the Department that it would be in the interest of Candidates for certificates of competency to have examinations held at Yarmouth, Nova Scotia, and on the 24th of June last, Captain Henry Lewis and Captain Thomas Killam were appointed Examiners by Order in Council for that port. As before mentioned, six meetings of the Board were held at Yarmouth, at which 17 candidates passed and received certificates of competency.

The following statement shews the receipts and expenditure on account of this service since the Act went into operation, viz:—

				Expenditure.		Receipts.
For fiscal year ended	30th June,	1871	•••	<b>\$1,410 45</b>	•••	Nil.
do	do	1872	•••	4,312 07		<b>\$1,344</b> 00
do	do	1873	•••	6,466 18	•••	4,963 00
do	do	1874		4,520 19		2,995 00
do	do	1885	•••	5,696 62	•••	2,715 00
do	$d\mathbf{o}$	1876	•••	4,672 08	•••	2,021 87
do	do	1877		4,050 00	•••	1,740 50
do	do	1878	•••	4,249 76	•••	1,296 50
		\$35,377 35 17,075 87				\$17,075 87

Excess of expenditure over receipts..... \$18,301 48

#### WRECKS AND CASUALTIES.

The casualties to British, Canadian and foreign sea-going vessels reported to the Department as having occurred in Canadian waters, and to Canadian sea-going vessels in waters other than those of Canada, during the year ended 31st December, 1878, were 310, representing a tonnage of 129,143 tons register, and the amount of loss, both total and partial, so far as ascertained, was \$2,770,000. The number of lives lost in connection with these disasters, was 116, viz: 13 in Canadian waters, and 103 in waters other than those of Canada.

The disasters reported to the Department as having occurred to vessels on the inland waters of Canada, during the last calendar year, were 29, representing a tonnage of 5,497 tons register. The amount of loss sustained is estimated at \$131,375, and the number of lives reported lost was 5.

The total number of casualties reported to the Department as having occurred during the calendar year, to sea-going and inland vessels was 339, and 121 lives were reported lost in connection with them. The aggregate number of tons involved in these disasters was 134,640 tons register and the total amount of loss as far as has

been ascertained, including both vessels and cargoes, was \$2,901,375. This amount includes the damage and loss of cargoes as well as the damage to and loss of vessels.

The wooden brigantine "G. M. Jones" of Halifax, 249 tons register, was run into and sunk by a steamship off Martha's Vineyard on the 7th of October, 1877. The brigantine was 7 years old, classed at French Lloyds, and was valued at \$12,000. The cargo consisted of coal and was valued at \$10,000. By this casualty nine lives were lost. The Brigantine was owned by James A. Moren, of Halifax, N.S.

The wooden ship "Hannah Law," 1,299 tons register, 10 years old, owned by Mr. David Law, of Glasgow, sprung a leak on the 24th of January, 1878, in Lat. 39.45, N. Lon. 70.45 W. while on a voyage from Cardiff to New York, with a general cargo. The crew were rescued by the brigantine "Minnehaha," Captain Porter, and landed at Yarmouth, N.S. The vessel was valued at \$50,000, and was classed in English Lloyds. The value of the cargo is not known. This vessel is not included in the list of wrecks as she was not lost in Canadian waters.

The fine wooden bark "Chebucto" of Windsor, N.S., 2 years old, 803 tons register tonnage, was stranded at Ketch Harbour, near Halifax, on the 8th of May last, during a thick fog, while on a voyage from Windsor, N.S., to Halifax in ballast. The vessel became a total loss and was valued at \$50,000. She was owned by E. Churchill & Sons, of Windsor, and was not insured. She was classed in French Lloyds.

The wooden bark "Glenalla," of Yarmouth, N.S., sailed from Baltimore for Cork with a cargo of corn on the 7th January last, and has not since been heard from. She was 777 tons register, 3 years old and was valued at \$24,000. The cargo was valued at \$20,000. She was owned by Messrs. Hatfield, Bros. of Yarmouth, N.S., and was classed in English Lloyds, and was insured for \$15,000. By this casualty fifteen lives were lost.

The bark "Toledo," built of wood, 5 years old and 929 tons, owned by Wm. Law and others, of Yarmouth, N.S., sailed from Baltimore for London, on the 5th February last, with a cargo of grain, and has not since been heard of. The vessel was valued at \$35,000, and was insured for \$32,000. The cargo is estimated at \$35,000, but it is not known whether it was insured or not. The vessel was classed in French Lloyds, and was registered at Yarmouth, N.S. By this casualty 14 lives were lost.

The fine wooden ship "W. J. Lewis," of Halifax, N.S., was burned at sea on the afternoon of the 9th May last, while on a voyage from Buenos Ayres to Antwerp, with a cargo of wool. The vessel was five years old, was classed in French Lloyds, and was valued at \$50,000, and was 931 tons register. The cargo was valued at \$350,000. By this casualty no lives were lost. The fire was caused by spontaneous combustion. The vessel was owned by Messrs. Black, Bros., of Halifax, N.S.

The wooden ship "N. & E. Gardner" of Yarmouth, N.S., 1,465 tons register, owned by Samuel Killam of Yarmouth, was abandoned at sea on the 17th March last, and became a total loss. The ship met heavy weather on the 14th March which hove her on her beam ends; she lighted again but in a leaky condition, and the crew becoming exhausted, they abandoned her on the 17th of the same month, and went on board the steamship "Illinois." The "N. & E. Gardner" was on a voyage from Galvoston to Liverpool, with a cargo of cotton, when she met with the disaster. She was valued at \$30,000, and was insured for \$20,000; she had a cargo of cotton which was valued at \$250,000. The vessel was classed in French Lloyds, and was 13 years old. No lives were lost by this casualty.

The bark "Assyrian" of Charlottetown, 4 years old, 492 ions register, built of wood, classed in English Lloyds, 7 years A 1, left New York for Queenstown on the 6th February last with a cargo of barley, and has not since been heard of. The vessel was valued at \$20,000, and was insured for \$13,000. The cargo was valued at \$20,000-By this casualty 10 lives were lost. The vessel was owned by Messrs. A. A. McDonald & Bros. of Georgetown, P.E.I.

The ship "Cambrian" of St. John, N.B., 13 years old, 1,124 tons register, owned by Joseph Prichard, of St. John, N.B., was abandoned at sea on the 29th May last in Lat. 49 S., Long. 88 W., while on a voyage from Pabellon de Pica to Cork with a cargo of guano. The ship met with heavy weather which caused her to leak so badly that the crew had to take to the boats, and were subsequently picked up by the bark "Telegraph," after being 11 days in the boats. Three of the crew lost their lives. The vessel was classed in French Lloyds, and was valued at \$25,000, and was insured. The value of the cargo was estimated at \$80,000.

The fine iron steamship "Lake Megantic," 3 years old, registered at Montreal, and owned by the Canada Shipping Company, commanded by Capt. Battersby, sailed from Quebec on the 20th July last with a crew of 44, 13 cabin passengers and 13 men in charge of cattle, laden with a general cargo from Montreal and 226 horned cattle bound for Liverpool, and on the morning of the 22nd she struck a reef off Otter River Point, about 8 miles east of South Point Anticosti and became a total loss. The crew and passengers and men in charge of the cattle were all safely landed without loss of life. Some of the cattle were lost, and the greater part of those saved wandered off on the island and could not be recovered. The vessel was 1,445 tons register, was classed in English Lloyds, and was valued at \$200,000; she was insured for £35,000 stg. At the time the vessel struck the weather was misty with rain.

An investigation was held into the cause of the loss of this fine vessel by the Quebec Harbour Commissioners, and the opinion of the court was that, considering the state of the weather at the time the vessel made South Point Anticosti, Capt. Battersby should not have contented himself with an estimate of the ships distance from

the light, but should have verified it by using the lead, when he would have found himself dangerously near the shore.

The court was also of the opinion that the light at South Point Anticosti was sufficient to give the ship a good departure, and to attempt to coast Anticosti in such weather as prevailed at that time, in order to pass five miles off Heath Point Anticosti, as was Capt. Battersby's intention, was extremely imprudent. The court suspended Capt. Battersby's certificate as master for a period of three months from the 19th September, 1878.

The wooden ship "Malta," of Windsor, N.S., 5 years old, sailed from New York on the 23rd March last bound for London with a cargo of wheat and flour, and has not since been heard from. The ship was 1,228 tons register, and was classed in French Lloyds. She was valued at \$30,000 and was insured for \$18,000. By this disaster 21 persons lost their lives.

The barque "Palestina," 318 tons register, of Windsor, N.S., 12 years old sprung a leak through stress of weather and was abandoned by the crew in July last off Abaco, W.I., while on a voyage from Portland, Maine, to Havana, with a cargo of lumber and became a total loss. She had a crew of 11 persons, 10 of whom were drowned while endeavoring to reach the shore. The survivor escaped by swimming to the shore. The vessel was 12 years old and was valued at \$12,000. She was owned by Mr. Grenville Loud, of Baltimore, U.S.

The iron steamship "Blenheim" Holman, master, of Exeter, Great Britain, was stranded on the S.W. Reef of Bic in the River St. Lawrence on the 5th August last, while on a voyage from Newport to Montreal in ballast, and became a total loss. She was 1,307 tons register, 4 years old and was classed A 1 in English Lloyds, and was valued at \$98,000. No lives were lost by this casualty. The vessel was owned by Mr. John Holman, St. Mary Axe, London. An investigation into the cause of this casualty was held by the Harbour Commissioners of Quebec, who were of the opinion that Capt. Holman used every precaution to keep his ship in safety, and that the casualty would not have occurred had it not been for the wrecking schooner "Diver" acting unintentionally as a decoy. It appears that the "Diver" was working on the wreck of the steamship "Strathtay" at the North-west Reef of Bicquette, and when Capt. Holman, who was looking for a pilot, burned a blue light, the "Diver" replied by showing a bright white light over the rail abaft the main mast, which was taken by Capt. Holman for a pilot signal. The steamship was put on a course to make the schooner, going very slow, and while making preparations to receive a pilot the ship struck on the reef, 10 feet of water being under her foremast and 11 fathoms aft.

The Government steamship "Lady Head" was stranded at Point Jaune, in the Gulf of St. Lawrence on the 10th August last, while coming from Anticosti te

Gaspé, and became a total loss. She was built of iron and was 21 years old. She was valued at \$40,000, and was 168 tons register; no lives were lost by this casualty. An investigation was held by the Quebec Harbour Commissioners into the cause of the casualty. The Court suspended the certificate of the sailing master, Captain Cyprien Morin, for a period of six months from the 16th October last, and declared that Achille Boucher, the first mate, and Nazaire Deroy, the second mate of the vessel, were incompetent to fulfil the duties they had to perform.

The boilers and engines of this vessel were very old, and had the vessel not been lost they would have to be replaced by new ones at probable cost of \$25.000.

The fine new schooner "Jessie Purney" of Shelburne, N.S., sailed from Halifax for Demerara on the 30th August last, with a cargo of fish, and has not since been heard of. She was 98 tons register, and was valued at \$6,000, and was insured for \$5,000. 6 lives were lost by the casualty. The vessel was owned by Mr. Samuel Muir, sen., of Shelburne, N.S.

The wooden ship "Commerce" one year old, of Shelburne, N.S., 1,297 tons register, sailed from Philadelphia for Antwerp on the 18th September last, with a cargo of wheat, and on the 26th October was run into and sunk in the English Channel, by the steamship "Empress." Two of the crew were lost and the remainder, 20 in number, were saved by climbing on board the steamship. The ship was one year old, was valued at \$57,000, and was insured for \$24,000. The cargo was valued at \$60,000. The vessel was owned by Mr. L. M. M. Willett, of Shelburne, N.S.

The schooner "Caledonia" of Windsor, N.S., sailed in ballast on the 2nd December, 1878, from Yarmouth, N.S., for Hantsport, with a crew of 6 persons and 2 passengers. The vessel encountered heavy weather which drove her on the coast of Maine, and on the 7th of the same month she struck, during thick weather, on Libby Island, State of Maine, and become a total loss. The crew, who were all on deck, were swept off and perished, but the two passengers who remained in the cabin were saved. The vessel was not insured and was valued at \$3,000. She was 7 years old and was 112 tons register, and was owned by Messrs. E. Churchill & Sons, of Hantsport, N.S.

Only one wreck occurred during the last year at St. Paul's Island. On the 5th of May the brig "Barbara" of Dublin, 230 tons register, 8 years old, struck on the Island during a thick fog, while on a voyage from Limerick to Miramichi in ballast, and became a total loss. The crew were all saved. The master of the vessel states that he mistook the sound of the fog-whistle for a ship's horn. The vessel belonged to Captain James Begg of Limerick Ireland. No wrecks occurred at Scatterie Island during the last year.

At Sable Island only one wreck occurred during last year and was unattended with loss of life. The Norwegian bark "Emma," 7 years old, Captain Anderson, from London to Philadelphia, in ballast, struck on the north-east bar on the 22nd August, about 14 miles from the lighthouse. She was reported to the main station at 10 a.m., and the Superintendent immediately manned the lifeboat and proceeded down to the foot of the lake, but owing to the heavy sea it was found impossible to launch the boat on the north side of the Island, so that a smaller boat had to be taken from the lake and launched on the south side through a sea breaking heavily at the time. This boat found Captain Anderson, his wife and four men in the ship's boat. They were taken into the Superintendent's boat, as they could not have landed on account of the surf. In landing the boat was filled with water. Captain Anderson reported that seven men were remaining on the wreck, but it was found impossible to put out to the vessel that night, owing to the wind and sea. Next morning the sea was still running high, but a boat was launched which reached the wreck and brought the men off.

The vessel broke up, nothing of consequence being saved. The rescued crew, and Captain Anderson and wife, were cared for on the Island until the arrival of the Government steamer, when they were taken on board and landed at Halifax on the 28th September.

The ship "Edith Troop," of St. John, N.B., 1,233 tons register, 7 years old, sailed from New York with a cargo of wheat and rye, on the 10th October last, bound for Antwerp, and on the 12th of the same month, while running before a gale, her fore staysails blew away, causing the vessel to broach to. The vessel was hove on her beam ends, shifting the cargo and straining the vessel. The vessel righted and put into Halifax for repairs. It was found that about 20,000 bushels of grain were damaged. The damage to the vessel amounted to \$15,000. The vessel belonged to Messrs. Troop & Son, of St. John, N.B.

The Italian bark, "Archangelo," 7 years old, 634 tons register tonnage, left New York for Gloucester, England, with cargo of corn, oilcake and flour, and when four days out her deck houses were swept away, and the vessel was hove on her beam ends. Part of the cargo was jettisoned, and the vessel made Halifax in a very leaky condition. The damage to the vessel amounted to \$10,000, but the amount of damage to the cargo is not known. The vessel is owned in Servia.

The weoden bark "Orlando," of Charlottetown, P. E. I., 336 tons register, one year old, and owned by Messrs. Hyndman Bros., of Charlottetown, sailed from Baltimore for Gloucester, England, on the 26th January last, with a cargo of grain. The vessel encountered heavy weather, and on the 3rd February her cargo shifted, and the vessel was hove on her beam ends by the sea. The crew were taken off by the German ship "Dinsburg" and landed at Falmouth. The "Orlando" became a

total loss. She was valued at \$15,000, and was insured for \$14,000. The value of the cargo is unknown. The vessel was classed in English Lloyds.

The new schooner "Mabel Claire," of Liverpool, N. S., left St. Augustine, coast of Labrador, on the 22nd October with a cargo of fish, bound for Liverpool, N. S., and shortly after sailing struck on a rock near that place, and became a total loss. She was 144 tons register, and was valued at \$7,500, and was insured for \$6,000. The circumstances connected with the loss of this fine schooner were such that it was deemed advisable to hold an investigation into the cause of the casualty, and Captain P. A. Scott, R. N., the Chairman of the Board of Examiners of Masters and Mates, was directed to hold the investigation, and his opinion is that the loss of the schooner was caused by the pilot in charge mistaking the position of the ledge on which the vessel struck, and that every reasonable effort was made to save the vessel and cargo after the casualty. The vessel was owned by Matthew McLeod and others of Liverpool, N. S.

A small schooner, called the "James Scott," 7 years old, 30 tons register, belonging to Port Dover, Ontrrio, was struck by a squall and capsized on the 16th June last, while on a voyage from Buffalo to Port Burwell. By this casualty five lines were los. Two of the crew were picked up by the bark "Nellie Berk," and were landed at the light station, Long Point, Lake Erie. The vessel was in ballast, and was valued at \$700. The vessel belonged to Mr. Mason Hill, of Port Burwell, Ontario.

The steamer "Lake Breeze," of Windsor, Ont., 198 tons register, while at the wharf at Leamington, Lake Erie, was set on fire by sparks from the smoke stack and was totally burned. The fire caught at night and one life was lost. The vessel was 10 years old, and was valued at \$10,000; she was insured for \$5,000, and owned by Mr. J. Laframboise, of Windsor, Ont.

The steamer "Mary R. Robertson," 10 years old, of Chatham, Ont., 257 tons register, was burned at Parry Sound in the Georgian Bay, on 22nd July last, while loading lumber for Chicago. The vessel was within three hundred feet of a millyard in which a fire broke out, and a strong wind blowing at the time in the direction of the steamer it carried the fire towards her. The vessel became a total loss and was valued at \$18,000; no lives were lost by the casualty. The vessel was owned by Messrs. Beard & Rookledge, of Kincardine, Ont.

The steamer "Silver Spray." of Port Dalhousie, 142 tons register, was burned while in winter quarters, on the 29th March last, at Owen Sound. The cause of the fire is unknown. The vessel was 13 years old, and was valued at \$18,000. She was insured for \$10,000. No lives lost by this casualty.

The steamer "Quebec," 4 years old, of Sarnia, belonging to the North-West Transportation Company, stranded on Magnetic Shoals, Lake Huron, on the 28th

October last, and sustained damage to the extent of \$20,000. The cause of the casualty was a snow storm accompanied by heavy weather.

The brigantine "Nebo," of Turk's Island, 175 tons register, sailed from Cascumpec, P.E.I., on the 13th December, 1877, with a cargo of potatoes, bound for New York, and has not since been heard of. The vessel was 9 years old, and was valued at \$5,000; she was partially insured. By this casualty eight lives were lost. The vessel was owned by W. R. Ball, of St. Thomas, W.I. The vessel is supposed to have foundered while in Canadian waters.

The fine ship "Empress of India," 1 year old, registered at St. John, N.B., and owned by Messrs. Troop & Son, of that place, struck a sunken wreck at Bremer haven, while making that port, on the 25th November, 1877, with a cargo of guano from Pabillon de Pica, and became a total loss. The vessel was valued at \$95,000, and was insured for \$39,000. The cargo was valued at \$125,000. No lives were lost by this casualty. The vessel was classed in French Lloyds for 10 years.

When the wreck register was closed for publication at the close of 1877, there were casualties which occurred during the year of which the Department had not sufficient particulars to enable it to publish them in the list for that year. Many of these casualties were subsequently reported to the Department, and will be found in Supplement No. 2 to this Report. These casualties have been added to the number of disasters previously published, and it will be seen by reference to the following comparative statement, that the loss of life and the amount of damage sustained by the mercantile marine in 1877 was greatly in excess of the loss published when the wreck register was closed for that year.

Comparative Statement of the Losses reported to the Department since 1870. This Statement includes both total and partial to Vessels and Cargoes.

	<del>- Name description</del>	_	Casualties	Tonnage.	Lives Lost	Damage.
For Year ending do	31st Decem do do do do do do do do	ber, 1870	350	82,008 81,035 99,109 99,523 106,862 99,427 153,368 177,896 134,640	210 81 237 *813 109 78 404 153 121	\$ 901,000 2,100,000 2,507,338 2,844,133 2,029,965 2,468,521 2,942,955 2,952,582 2,901,375

<sup>\*</sup> Of this number 545 persons were lost by the wreck of the steamship "Atlantic" on the 1st April, 1873.

There are a number of casualties which occurred during the last calendar year of which the Department has not sufficient information to warrant it in publishing them in the list for 1878, but a supplementary list of wrecks for that year will be published along with the Report for 1879.

#### SHIPPING MASTERS AND SHIPPING OF SEAMEN.

In Supplement No. 2 to this Report, will be found a statement showing the returns received from the Shipping Masters appointed under the "Act relating to the Shipping of Seamen," for the half-years ended 30th June and 31st December last, and of the fees received under the Act.

The only changes which have occurred in the list of the Shipping Masters since the 1st of January last, are those caused by the appointment of Mr. Benjamin Trudel, on the 22nd May last, as Shipping Master (and Chief of River Police) for the Port of Quebec, in the room of Mr. R. H. Russell, superan suated, and the appointment of Mr. George Smith, on the 7th October last, as Shipping Master for the Port of Montreal. Mr. John D. Cummins, Shipping Master at Halifax, died on the 12th December, 1878, but no appointment has yet been made in his place. The following is a summary of the Reports received from Shipping Masters at some of the principal ports in the Dominion:—

The Shipping Master at St. John shipped during the year, 3,664 seamen, and discharged 1,620, and received as fees, at the rate of 50 cents for each seaman shipped, and 30 cents for each seaman discharged, \$2,318, out of which he paid for Assistant, and incidental expenses, \$882.01, leaving the net income of his office \$1,435.99.

The Shipping Master at Halifax shipped, during the calendar year, 2,668 seamen, and discharged 2,010, for which he received \$1,957, out of which, after deducting expenses (\$1,026.62), he had as remuneration \$910.38.

At Montreal, the Collector of Customs acted as Shipping Master, and received the fees until the appointment of Mr. Geo. Smith, on the 7th October last. The total number of seamen shipped during the calendar year, amounted to 396, and discharged 207 seamen, and the receipts as fees amounted to \$260.10.

At the Port of Quebec the total number of seamen shipped from the 1st January to 31st December last, was 1,148, of which number 395 belonged to British, 673 to Dominion, and 80 to foreign vessels; 366 seamen were discharged during the same period, of whom 126 belonged to British, and 240 to Dominion vessels. In addition to these, 103 wrecked seamen were discharged, for whom no fees were charged. The total amount of fees received during the calendar year was \$683.60, being \$398 less than the receipts of the previous year, and deducting the sum of

\$135.53, being the amount of incidental expenses, the balance, \$548.07 reverted to the Treasury, as the Shipping Master receives a salary for discharging the duties of Shipping Master and Chief Constable of the River Police, which is paid from the appropriations for River Police.

At the Port of Chatham, N.B., 177 seamen were shipped and 65 discharged, and fees to the amount of \$108 received by the Shipping Master.

At the Port of Pictou, N.S., 331 seamen were shipped, 171 discharged, and fees to the amount of \$216.80 collected.

At the Port of Liverpool, N.S., 645 seamen were shipped, 535 discharged, and fees to the amount of \$483 collected.

At the Port of Yarmouth, N.S., 752 seamen were shipped, and 497 discharged and fees to the amount of \$525.10 collected.

At the Port of Charlottetown, 621 seamen were shipped, and 377 discharged, and fees to the amount of \$516.10 collected.

At the Port of Lunenburg, 590 seamen were shipped, 380 discharged, and fees to the amount of \$409 collected.

### PILOTAGE AUTHORITIES.

#### QUEBEC.

The Report of the Harbour Commissioners of the Port of Quebec, who are by law the Pilotage Authority, and vested with the powers and authorities of the late Trinity House of Quebec, will be found in Supplement No. 2. The annual statement of the Decayed Pilot Fund, which is now under the conduct and management of the Corporation of Pilots, will be found in Appendix No. 41 to this Report. From this statement it appears that on the 31st December last, the Decayed Pilot Fund stood as follows:—

Money invested	<b>\$</b> 53,350	68
In Savings Bank	3,920	
In Treasurer's hands	198	
Deduct arrears due on pensions	\$57,470 433	
		24

The number of pilots on the active list on the 31st December last was 194, being one more than reported last year; and the total number of apprentices was 40, being a decrease of 7 in the number reported last year. Five licenses were granted to xlviii

apprentice pilots after examination, but no new apprentices were indentured during the year. Six pilots were pensioned, one died, one was suspended and two fined. Of pilots on the active list, 23 were in the employ of Steamship Companies, and in charge of Dominion steamers and lightships. The number of infirm or decayed pilots on the list is 55. The pensions range from \$40 to \$160, but the greater number receive \$96 per annum; 78 widows received pensions at a rate of \$80 per annum, 12 at \$64, 7 at \$48 and 16 at \$40, and 24 children of pilots received pensions ranging from \$20 to \$48. The amount paid for pensions during the year was \$13,914.61 and the per centage on contribution of pilots to the fund amounted to \$7,316.59 and the sum of \$11,489.57 was received from capital, interest paid, &c. The total receipts on accounts of the fund for the year amounted to \$18,806.10, and the expenditure to \$18,607.28.

The total receipts for pilotage amounted to \$104,816.78, being \$7,758.46 less than those of the preceding year. 184 pilots received from the general earnings of last season a dividend each of \$455.90, while that of the previous season amounted to \$630.30. The total receipts of the Corporation of Pilots for the last calendar year amounted to \$107,934.50, and the expenditure, not including dividends to pilots, to \$21,927.29.

The Commissioners report that only 6 trials were held during the season, and the cases were of less importance than those of the preceding season. No complaints for infringement of the regulations were preferred by the Corporation of Pilots against any of the members, and only three complaints were made by shipmasters against the management of the Corporation. On the trials held one pilot was convicted suspended for 10\_days and condemned to pay costs; one convicted and fined \$10 and costs, and another convicted and fined \$20 and costs, and the other cases were dismissed.

#### MONTREAL.

The Harbour Commissioners of Montreal are the legally constituted !Pilotage Authority for this District, and possess for this purpose the powers formerly vested in the Montreal Trinity House. The Report of the Commissioners for this District will be found with other Reports in Supplement No. 2, but the statement of the Decayed Pilot Fund will be found in Appendix No 42 to this Report.

From the Report it appears that there are at present 42 pilots on the active list, and three new pilots were licensed, and temporary licenses granted to two pilots in accordance with the 36th Section of the Pilotage Act, 1873, and two pilots died during the year. The number of apprentices is 22.

The amount received for poundage, being 5 per cent on the earnings of the pilots was \$1,532.83, and the total earnings of the pilots amounted to \$30,416.12. In

addition to the poundage there was received the sum of \$1,857.92, being interest on investments, and \$43.50 pilotage dues received from vessels obliged by law to pay dues, but which did not take pilots, making a total of \$3,434.25 received. The disbursements consisted of \$2,147.70 paid as pensions to old and infirm pilots and widows of pilots. The amount to the credit of the Decayed Pilot Fund shows an increase of \$1,286.55 as compared with the preceding year, although there has been a falling off in the poundage received of about \$64; and two new pensioners have been placed on the list. There are at present 25 pensioners on the list, viz., 23 women and two men. The fund now amounts to \$31,615.45, and \$24,000 of this amount is invested in Montreal Harbour Bonds, \$2,000 in Montreal Water Works Bonds, \$1,620 in Dominion Stock, \$3,679.06 deposited in City District Savings Bank, and the balance of \$316.39 cash in hands of the treasurer. The pensions paid range from \$75 to \$90 under the new scale adopted last year.

In the report of the Pilotage Authority will be found an account of accidents which occurred during the past season, which are all of a minor character and unaccompanied with serious loss or damage, with one exception, viz., that of the collision which occured on the 8th November, between the steamships "Moravian" and "Phænician," at Cap a la Roche," by which both vessels and a portion of the cargo of the "Phænician" received very serious injury. As the result of a preliminary enquiry the pilot of the "Phænician," being found in fault was suspended for one year from the date of the accident.

### ST. JOHN, N.B.

By the return received from the Authority (see Supplement No. 2) it will be seen that the sum of \$26,536.48 was received as pilotage dues during the year ended 31st December last. These dues were received from 571 vessels, 342 of which were British and 229 foreign. There are 44 licensed pilots. From the statement of the receipts and expenditure it appears that the receipts from licenses granted to pilots and boats, and the proportion of pilotage dues deducted from all vessels clearing, together with fines and interest on deposits, amounted to \$2,462.34, and the expenditure, including salary of Secretary-Treasurer, assistance given to worn-out pilots, widows and children, and other charges, to \$1,646.35, leaving a balance to the credit of the Pilot Fund of \$815.99.

#### HALIFAX, N.S.

From the returns received, it appears that the sum of \$12,346.56 was received as pilotage dues, \$184 for renewals of licenses and bonds, \$522 for commission on earnings to defray expenses of office, and \$208.45 for superannuation fund, making the total receipts \$13.261.23. Of this amount \$10,790.04 was paid to pilots, \$1,922.56 for expenses of office, Secretary's salary, rent, &c., and the balance of \$548.63 cash

on hand. The number of vessels entering inwards, subject to pilotage dues, was 710, viz: 552 British and 158 foreign; and of vessels entering outwards, 385, of which 263 were British and 122 foreign. There are 19 licensed pilots at this Port.

## BRITISH COLUMBIA.

Full returns of the Pilotage Authority of this District appear in Supplement No. 2. Only 12 licensed pilots belong to this District, of whom 10 during the past year were in actual service, and there are no apprentices. The receipts for the past year amounted to \$28,347.44, of which sum \$26,664.38 was received for pilotage dues, and the balance for licenses certificates and examination fees, fines, &c. The sum of \$23,489.20 was expended in maintenance of pilot schooners, pay of pilots, extra boat hire, and other services, the net earnings of the pilots being \$16,958.51. \$3,287.76 was expended in payment of Secretary-Treasurer, expenses of examinations and investigations, office expenses and general and petty expenses, and there remained a a balance to the credit of the Pilotage Authority of \$1,164. The average individual earnings of the pilots in this district for the past year amounted to \$1,399.98.

### MIRAMICHI, N.B.

In this District there are 31 licensed pilots, three of whom, however, are allowed to pilot inwards only. During the past season 240 vessels reported inwards and 241 outwards. The total amount of pilotage dues received was \$13,737.34, of which amount \$4,540.73 was received from British, and \$9,196.61 from foreign vessels. The sum of \$182 was received for renewal of licenses of pilots, &c., and this amount was expended in payment of Secretary, examination of pilot boats, printing, &c,

Returns have been received from the Pilotage Authorities for the Districts of Charlotte County, Buctouche, Cocagne and Dalhousie, in New Brunswick; from Sydney, Pictou, Richmond and Pugwash Districts, in Nova Scotia, and from Cascumpee and New London in Prince Edward Island, and these returns will appear in Supplement No. 2 to this Report.

Pilotage returns have not yet been received from the Authorities of the Districts of Digby, Annapolis and Hants, in the Province of Nova Scotia, nor from the Authorities of the Districts of Shediac, Sackville, Bathurst, Caraquet, and Richibucto, in the Province of New Brunswick. Pilotage Districts for Crapaud, P.E.I., Bathurst, N.B., Caraquet, N.B., New London, P.E.I., and Hants, N.S., were established during the last calendar year. The different Pilotage Authorities have been called on for the returns required by law, but these returns have not come to hand except in the cases of those specified.

# HARBOUR COMMISSIONERS AND HARBOUR MASTERS.

In Supplement No. 2 to this Report will be found reports of the Harbour Commissioners at Toronto, Montreal, Quebec and Pictou for the calendar year ended 31st December last. The Report presented by the Harbour Master at Toronto to the Harbour Commissioners, shows that the total receipts for harbour dues amounted to \$10,761.36, being a falling off from the previous year of \$566.89, the falling off being on almost all importations, with the exception of grain. The total revenue for the year amounted to \$12,995.89, and the expenditure to \$12,139.07. During the year dredging operations have been carried on at a cost of \$6,192.51 by the Harbour Trust in addition to the Government works on the West channel, carried on by the Department of Public Works. During the past season 2,226 vessels frequented the Harbour, being a decrease of 142 vessels from 1877.

The Report of the Harbour Commissioners, Montreal, embracing the Reports of the Harbour Master and Harbour Engineer, will be found in full in Supplement No 2 to this Report.

From the Report of the Harbour Master it appears that 516 sea-going vessels visited the Port last season, of the aggregate tonnage of 397,266 tons, 249 of which vessels were built of iron and of the aggregate tonnage of 311,968 tons, and 267 were built of wood of the aggregate tonnage of 85,298 tons; 482 of these vessels were British, having a tonnage of 382,056 tons, and the rest foreign. The number of vessels that arrived in previous season was 513, having a total tonnage of 376,859. It will thus be seen that there has been a slight increase during the past season as compared with the preceding one, of three vessels and 20,407 tons. The number and tonnage of inland vessels have fallen short of that of the previous year to the extent of 831 vessels and 83,735 tons, the number which entered during the season being 5,202 having a gross tonnage of 764,243 tons.

The revenues of the Harbour Commissioners during the last calendar year from all sources amounted to \$351,477.44. \$115,000 of this amount was received from the Dominion Government on account of new channel operations, and \$13,867.40 from other sources, leaving the net revenue as \$222,610.04. During the year \$159,348.40 was expended on new channel operations, \$28,462.48 in construction account, \$46,945.05 Dominion Government interest; harbour dredging, \$19,075.77; harbour expenses, \$25,726.93; harbour repairs, \$19,004.32, interest on harbour debt, \$111,779.22, making, with other payments, a total expenditure of \$431,397.28.

The deepening of the ship channel between Montreal and Quebec is reported to be progressing most favorably. A channel 22 feet deep at low water and of a minimum width of 300 feet has been obtained, and officially inspected and tested on the 18th and 19th November last by the Commissioners.

The Report of the Harbour Commissioners for the Port of Quebec, with accompanying statements, will be found in Supplement No. 2. It will be seen from these statements that the total revenue of the Commissioners during the past year, arising from rents of wharves, tonnage and other dues, amounted to \$66,355.83, while for the preceding year it amounted to \$89,029.16. This large decrease is owing to the great depression in trade which has existed throughout the year. Of the revenue received \$24,677.12 was tonnage dues, \$12,933.56 export, import and harbour dues, and the balance rents on property, etc. The expenditure, including salaries of officials, repairs to wharves, interest and sinking fund on \$723,000 Harbour debentures amounted to \$57,965.88, leaving an excess of revenue over expenditure of \$8,389.95. The total value of the assets of the Commissioners, including wharves and other properties harbour improvements and graving dock amounted to \$1,086,844.50, and the liabilities consisting of Quebec Harbour bonds, harbour improvements and graving dock debt, amounted to \$948,199.50, shewing an excess of assets over liabilities of \$138,645.

The Commissioners report that during the past season the harbour improvements in the River St. Charles have progressed very satisfactorily, and full details of the operations will be found in their Report. The sum of \$211,033.65 had been expended on the works up to the 31st December last.

The Commissioners also report that the works connected with the building of the graving dock at Point Levis, were formally contracted to Messrs. Larkin, Connolly & Co., on the 17th August last, for a sum of \$330,932, and the work is being proceeded with. The total expenditure to the 31st December last, amounted to \$35,631.38. The lifting barge after undergoing repairs to the extent of \$1,191.30 was engaged during the past season, and removed 8 anchors, 96 fathoms of chain, 18 boulders, the wreck of the steamer "Bidder," and about one fourth of the wreck known as the "L'Orignal." The cost of working expenses, including repairs, amounted ed to \$10,555.23. During the year 14 anchors and a quantity of chain, amounting in all to the value of \$1,447.18, were sold, and there still remain on hand 86 anchors, about 300 tons of chain and 176 shackles.

The Report of Harbour Commissioners for the Port of Pictou, N.S., for the calendar year ended 31st December last, will also be found in Supplement No. 2, together with an account of their receipts and disbursements. The Commissioners report that owing to want of funds they have delayed the completion of the Market Street wharf until next spring. The receipts from harbour dues and wharfage, amounted to \$1,778.95 and the expenditure, including payment of balances from account of last year amounted to \$1,707.90, leaving a balance of \$71.05 in the hands of the Commissioners.

In Supplement No. 2 to this Report will be found Reports from a number of the Harbour Masters, at the more important Ports appointed under the Acts 35 Vic., chap.

42, 36 Vic., chaps. 9 and 63, and 37 Vic., chap. 34, with a statement of the fees collected by the Harbour Masters during the year ended 31st December last, and also a list of all the Harbour Masters appointed under these Acts.

The following Harbour Masters have been appointed by Order in Council during the past year, viz.:—

Mr. Jacob Silliker, for Port Elgin, N.B., on the 6th February, at a salary not to exceed \$200 of the fees collected.

Mr. Peter F. Leggat, J.P., for the Port of Metis, Quebec, on the 7th February, at a salary not to exceed \$200 of the fees collected.

Mr. James A. Hughes, for the Port of Digby, N.S., on the 19th February, at a salary not to exceed \$300 of the fees collected.

Mr. James W. Weatherby, for the Port of Tatamagouche, N.S., on the 27th February, at a salary not to exceed \$200 of the fees collected.

Mr. Robert Early, for the Port of Margaretville, N.S., on the 26th March, at a salary not to exceed \$100 of the fees collected.

Captain William Lauder, for the Port of River John, N.S., on the 26th March, at a salary not to exceed \$100 of the fees collected.

Mr. W. C. Olding, for the Port of Merigonish, N.S., on the 26th March, at a salary not to exceed \$100 of the fees collected.

Mr. John R. Coffin, for the Port of Bay Fortune, P.E.I., on the 29th April, in the room of Mr. W. R. Dingwell, resigned, at a salary not to exceed \$200 of the fees collected.

Mr. Thomas Harrison, for the Port of Rondeau, Ont., on the 4th May, at a salary not to exceed \$100 of the fees collected.

Mr. Joseph St. Laurent, for the Port of Rimouski, Que., on the 30th May, in the room of Mr. Peter D. Rouleau, resigned, at a salary not to exceed \$200 of the fees collected.

Mr. Hercules McDonald, for the Port of Cardigan River, including Cardigan Bridge, P.E.I., on the 2nd July, at a salary not to exceed \$200 of the fees collected.

Mr. John Cassidy, for the Port of Amherst Harbor, Que., on the 2nd September, at a salary not to exceed \$200 of the fees collected.

Mr. Joseph W. Cullen, for the Port of Dalhousie, N.B., on the 2nd September, in the room of Mr. John U. Campbell, deceased, at a salary not to exceed \$200 of the fees collected.

Mr. George Anderson, for the Port of St. Peter's Bay, P.E.I., on the 7th December, in the room of Mr. James McDonald, deceased, at a salary not to exceed \$200 of the fees collected.

## WHARVES, PIERS AND BREAKWATERS.

As stated in the Report of last year, the control and management of all the wharves, harbours, piers and breakwaters, now or hereafter to be constructed was transferred by the provisions of Act 40 Vic., chap. 17, from the Department of Public Works to this Department, and since the 28th April 1877, the Piers at Goderich, in the Province of Ontario; Rimouski, Riviere du Loup, Rivière Ouelle, Malbaie, Eboulements, L'Islet, and Berthier, in the Province of Quebec, and Maitland and Oak Point, in the Province of Nova Scotia, have been under the management of this Department At the Port of Cow Bay, Cape Breton, N.S., the Pier or Breakwater purchased under the provisions of the Act 37 Vic., chap. 18, is also under the management of this Department, but the tonnage dues imposed on vessels calling at the Pier and the tolls for goods landed thereon are collected by the chief officer of Customs at the Port. The collections for the fiscal year ended 30th June last, amounted to \$3,931.45.

The Piers at Goderich are under the charge of a wharfinger who is also Harbour Master, and the receipts for tolls for the year ended 31st December last, amounted to \$2,713.11 after payment of \$300, the salary of wharfinger. There was also received for rent of certain lots on the wharf the sum of \$711.

The Wharves or Piers in the Province of Quebec mentioned above, with the exception of Rimouski, were leased in April last to the St. Lawrence Steamship Navigation Co., Quebec, for the term of one year from the 1st May last, for the sum of \$580.

The Piers at Maitland and Oak Point, in the Province of Nova Scotia, are under the charge of wharfingers who receive as salary 33½ per cent. of the tolls collected. A statement of the receipts on account of these piers for the fiscal year ended 30th June last, will be found in Appendix No. 43.

By Order in Council of the 4th May last, rules and regulations and tariff of tolls were established for the Wharf and Docks at Rondeau, Kent County, Ontario, and Mr. Thomas Harrison was appointed wharfinger, to receive as salary a commission of 25 per cent. on the tolls and dues collected.

By Order in Council of the 2nd September last, rules and regulations and tariff of tolls were established for the Pier at Inverhuron, in the County of Bruce, Ontario, and Mr. Allan McDougall was appointed wharfinger, and to receive as salary a commission of 25 per cent. on the tolls and dues collected.

#### METEOROLOGICAL SERVICE.

In Appendix No. 46 will be found the eighth Annual Report of the Meteorological Service of Canada for the year ended 3 ist December last, as given by the Superintendent, Professor Kingston, of Toronto, who also holds the position of Director of the Magnetic Observatory at that place.

It will be seen by this report that out of 860 storm-warnings issued by the Central Office during the year, that 673 were verified, and the amount of confidence placed on predictions issued is gradually increasing. It has also been deemed advisable to issue daily probabilities, by publishing a statement each morning of the weather likely to prevail during the 24 hours following, and of 3,781 of these issued, 3,001 were fully verified, and 535 partly verified, the number fully verified exceeding 79 per cent. These probabilities are telegraphed every morning to over 100 places and are posted both in the telegraph office and post office at each place. The Superintendent reports that during the past year he issued a book of instruction for the use of observers, of whom a large number are volunteers and perform their services gratuitously. Eleven ordinary stations were added to the list during the past year, making the total number of stations, reporting to the Central Office, exclusive of probability stations, 179. It will be seen by the Report that the Chief Signal Office at Washington has, during the year, sent tri-daily telegraph reports from a considerable number of stations in the United States, and has also transmitted warnings of approaching storms. Lists of the chief and other stations in correspondence with the Central Meteorological Office are appended to the Superintendent's Report, from which it will be seen that there are 6 chief stations, 9 reporting telegraph stations, 19 cautionary storm signal stations, and ordinary stations 118.

The sum of \$37,000 was appropriated by Parliament for the Meteorological Service, and by reference to Appendix No. 27 it will be seen that this amount has been expended as follows: viz.: For salaries, Central Office, \$6,897.35; Chief stations, \$4,400; telegraph stations, \$4,438; reserve telegraph stations \$840; drum stations \$1,655.25; instruments and apparatus \$2,141.82; fittings and repairs and signal masts and drums \$384.22; stationery, books, &c., \$2,740.17; telegraphing \$10,229.90; travelling expenses, freight, cartage and petty expenses, \$1,189.22, and miscellaneous \$1,863.18.

#### OBSERVATORIES.

In Appendix No. 46 will be found the Report of the Director of the Magnetic Observatory, Toronto, for the year ended 31st December last. By reference to Appendix No. 25 it will be seen that the expenditure of this Observatory for the fiscal year ended 30th June last, amounted to \$4,800.24, being the full amount of the grant made by Parliament for its maintenance. It will be seen by reference to the Report that in addition to the meteorological observations taken, correct time is

determined at the Observatory by astronomical observations, and that this forms the standard by which all the clocks and watches in Ontario are regulated. For more than seven years the Observatory has given time daily to Toronto, by striking all the fire-alarm bells at a fixed instant, 11.55 a.m.

The Report of Mr. C. H. McLeod, Director of the Montreal Observatory, will also be found in Appendix No. 46. This Observatory is in connection with McGill College, and it discharges the duties of a telegraph reporting station in connection with the Central Meteorological Office at Toronto. The sum of \$500 is granted annually by Parliament for the purposes of this Observatory.

The sum of \$2,400 is annually voted by Parliament for the maintenance of the Observatory at Quebec. Commander Ashe, R.N., is Director. The Report of the Observatory for the last calendar year will be found in Appendix No. 46. The Director reports that during the past season of navigation the Time Ball has been daily dropped and time given for the firing of the the "Noon Gun," as well as to the Montreal Telegraph Office for transmission to many of their offices, and to a scotion of the Intercolonial Railway. The Observatory was also engaged at the expense of the Local Government of Quebec in the determination of the longitude of Trois Pistoles by electric telegraph, and a very accurate result was obtained. The expenditure for this Observatory for the last fiscal year amounted to \$2,400.

The sum of \$850 is also voted by Parliament for the maintenance of the Observatory at St. John, N.B., which is under the supervision of Mr. George Hutchison, and the Signal Station kept by Mr. John B. Longley. The Observatory and Signal Station were destroyed by the great fire that occurred at St. John on the 20th June, 1877, and since that period the signals have been repeated from the roof of a warehouse.

An allowance at the rate of \$100 per annum is made to Mr. Robert H. Cogswell, who for nearly two years past has given the true time at noon to the public at Halifax by means of a ball dropped at his establishment.

The sum of \$500 is annually voted by Parliament for the Observatory at Kingston, which is under the charge of the Rev. Dr. Williamson, of Queen's College. The Report of this Institution will be found in Appendix No. 46, from which it will be seen that the Observatory Board are endeavouring, with the consent of the City Council of Kingston, to provide for the erection of a new observatory building in a more elevated position, as the old Observatory situated in the Public Park is found unsuitable for the purposes required.

#### MERCHANT SHIPPING.

Since the business connected with the registry of ships was transferred from the Customs Department to this Department on the 1st January, 1875, all matters lvii

relating to the registry of ships and subsequent transactions, and the re-registry of wrecked vessels and the mea urement of ships have been managed and controlled by this Department.

There are 81 ports in the Dominion of Canada at which vessels are registered, but all of these ports are not ports at which a vessel may now be registered. In 1874, after the Canadian Act 36 Vic., chap. 128 came into operation, it was deemed advisable to confirm by Order in Council certain ports as ports at which vessels might be registered, and if reference is made to the list of new vessels registered in the Dominion which follows this report a list of the ports at which vessels may be registered will be found. With reference to the ports which were not confirmed as ports of registry in 1874, they remain ports of registry only for the purpose of recording transactions effected upon the vessels already registered there, and when the vessels registered there have been lost or wrecked or transferred to other ports, the duties of the collectors so far as connected with the registry of ships will cease.

In 1875 when this Department assumed the control of the registry of ships it was found necessary, owing to the Imperial Act having become complicated by so many amendments, to issue plain and explicit instructions for the guidance of the Registrars of Shipping, and instructions were carefully prepared, printed and issued in book form. These instructions were issued with the object of directing the attention of the Registrars of Shipping in Canada, to the duties required of them under the Imperial Merchant Shipping Acts of 1854 to 1873, and the Canadian Acts of 1873 relating to the registry of shipping and crew-space required by seamen. All the sections of the different Acts which related to the measurement and registry of ships accompanied the instructions. The book was found of great service to the Registrars in the discharge of their duties. All books, forms and papers required for carrying on that branch of the public service connected with the measurement and registry of ships are supplied to the different ports of registry by the Department.

Under the 16th Section of the Canadian Act 36 Vic. Chap. 128, no British or foreign registered ship, either actually or constructively wrecked whose register has been closed and whose certificate of registry has been delivered up and cancelled, can be legally registered again in Canada without the authority of the Governor in Council, and proof requires to be adduced that the vessel has been thoroughly repaired and made seaworthy, and that all the acts connected with the wreck, condemnation and sale of such ship were in good faith. All papers relating to applications for registry de novo of wrecked vessels are transmitted to this Department for examination, and if the papers and evidence received are sufficient to warrant the Department in recommending registry, a report of the case with a recommendation in the matter is submitted for the consideration of the Governor in Council.

The papers usually required by the Department in the case of an application for the registry of a wrecked vessel are as follows, viz.:—

- 1st. A notarial copy of the Master's protest.
- 2nd. A notarial copy of the survey and condemnation.
- 3rd. Evidence of due notice of sale being given.
- 4th. Bill or bills of sale necessary to establish the applicant's title to the vessel.
- 5th. Certificate from the Registrar of shipping at the ships former port of registry, certifying that the vessel's certificate of registry has been delivered up and cancelled and her registry closed.
  - 6th. Evidence that the vessel has been thoroughly repaired and made seaworthy.
  - 7th. Certificate of Survey.

The evidence required varys with the circumstances connected with each case, but the above-mentioned papers are as a general rule required to obtain registry de novo in the case of a wrecked vessel.

Following this report a statement will be found giving a list of the wrecked vessels which have been repaired and re-registered in Canada during the last calendar year.

All communications from the Registrar-General of Shipping, London, relative to matters connected with the registry of shipping in Canada are made to this Department.

During the last year the Port of Moncton, New Brunswick, was constituted a Port of Registry.

No fees are charged by a Registrar of Shipping in Canada for giving registry to a ship, or recording any subsequent transaction, but a fee of twenty cents is charged for the inspection of a ship's register, and if a certified copy of any entry or declar ation is required, a fee of twenty-four cents is charged for each copy furnished. There is also a fee charged by the Surveyor of Shipping, for the measurement of a vessel, according to the following scale, viz:—

For a ve	ssel und	<b>er 100 to</b> :	ns regi	ster	****	<b>\$</b> 2	00
do		100			ding 200 tons		
do	over	200	do	$\mathbf{d}\mathbf{o}$	400 do	4	00
do	$\mathbf{do}$	400	do	do	1,000 do	5	00
do	do	1,000	do			6	00

The Surveyor is also entitled to demand and receive from the person requiring his services, any travelling expenses which have been actually and necessarily expended by him, in connection with the measurement of a ship which he has measured, but such amount is in no case to exceed the rate of fifteen cents for every mile actually travelled by him.

The total number of vessels remaining on the register books of the Dominion on the 31st December, 1878, including old and new vessels, sailing vessels, steamers and barges, was 7,469, measuring 1,333,015 tons register tonnage; being an increase, as compared with 1877, of 107 vessels and 22,547 tons. The number of steamers on the register books on the 31st December last was 834, with a gross tonnage of 183,935 tons, and a net tonnage of 116,620 tons.

Assuming \$30 per ton as the average value, it will give the value of the registered tonnage of the Dominion at the close of the calendar year as being \$39,990,450 or £7,998,090 sterling.

A comparative statement follows showing the increase in the registered tonnage of the Dominion since 1873.

A statement follows, which has been compiled from the Repertoire Général for 1878 and 1879, from which it appears that the tonnage on the register books of the British Empire, including Canada and the other Colonies, was 7,860,702 tons. The United States of America come next with a tonnage of 2,444,408, but this does not include the tonnage trading on the inland lakes and rivers of that country. Norway comes next with a tonnage of 1,413,503, followed by Germany with a tonnage of 1,007,606. Italy has 1,019,137 tons, and France 817,732 tons. From this statement it will be seen that Canada with her 1,333,015 follows Norway and stands fourth on the list. With the exception of Canada these figures do not include the inland tonnage of the sailing vessels of these countries, or of steamers under 100 tons register, but with that fact taken into account, Canada appears to be entitled to rank as the fourth amongst the ship-owning countries of the world.

The number of new vessels built in the Dominion of Canada during the last year and registered at the different ports of registry in the Dominion, was 339, measuring 100,873 tons register, showing a decrease as compared with 1878 of 91 vessels, and 18,112 tons register. In addition to these vessels there was a fine new ship built at Alma, Albert County, New Branswick, for Gilbert M. Steeves, Esq., of Liverpool, Great Britain, which sailed for that port under a Governor's Pass, without being registered, as she was built for registry in the United Kingdom; she measured 633 tons. Adding this vessel to the new vessels built and registered during the year, it gives a total of 3 vessels, and 101,506 tons as the tonnage built in the Dominion of Canada, during the calendar year of 1878. Estimating the value of the new ships at \$45 per ton it gives a value of \$4,567,770 £913,554 stg.

A comparative statement follows of the number of new vessels built and registered in the Dominion of Canada from 1874 to 1878.

STATEMENT showing the number of Vessels and number of Tons on the Registry Books of the Dominion of Canada, on the 31st December, 1878.

#### PROVINCE OF NEW BRUNSWICK.

	ı	
İ		
Chatham	169	18,26
Oorchester	20	16,43
Richibacto	Nil.	Ni
Moncton	1	31
Sackville	11	4,67
St. Andrews	186	20,27
St. John	756	276,01
Total	1,142	335,96
Amherst Annapolis	15 75 134	5,92 22,13 7,33
Barrington	27	1,61
Saddeck	8 1	52
Digby	161	17,38
duysboro'	49	2,87
lalifax	1,015 115	106,28 12,26
ondonderry	6	2,726
unenburg	218	12,842
ialiand	32	28,399
ugwash	16	1,051
arrsboro'	79	11,881
icton	98	32,396
ort Hawk-sbury	27	1,644 1,370
Vdney	95	6,569
merourne	129	13,526
ruro	4	1,649
indsor	189	90,950
eymouth sarmouth	24 453	5,384 166,623
Total	3,003	<del></del>
10081	3,003	553,368
PROVINCE OF QUEBEC.		
mherst (M.I)	32	1 994
	42	1,224 2,371
	999	130,636
	31	1,746
cree .	3 1	232
ercé	869	112,140

1,976

248,349

STATEMENT showing the number of Vessels and number of Tons on the Registry Books, &c.—Continued.

## PROVINCE OF ONTARIO.

ı	1	Tons.
mherstburg	10	38
Belleville	9	78
righton	Nil	Ni
rockville	20	66
ollingwood	9	1,73
hippewa	3	15
hatham.	5 19	59
Dobourg	11	2,67 1,11
Jornwall	1	1,11
Parlington	2	25
Ounnville	17	1,83
Oundas	i	16
ort Erie	1	55
Joderich	21	1,44
Jamilton	35	7,90
lingston	205	27,11
Kingsville	1	10
Viagara	1	51
Vapaneevewcastle	22	3,34
)shawa	1	15
)ttawa	2 95	53
)wen Sound	95	10,17
)akville	10	1,77 1,16
Port Burwell	26	5,40
Port Dover	20	1,38
Port Colborne	7	76
Port Hope	32	3,79
ort Rowan	. 10	1,31
ort tanley	7	2,01
icton.	41	5,42
augeen	2	7
armaault Ste. Marie	16	4,02
t. Catharines	6	26
oronto	127	28,06
Vindsor	74 43	9,05
Vhitby	45	5,55
Vallaceburg	30	65 2,09
lorrisburg	3	38
Total	958	
	900	135,44
PROVINCE OF PRINCE EDWARD ISLAND	<b>)</b> .	
harlottetown	322	54,25
PROVINCE OF BRITISH COLUMBIA.		
1		
ictoria	51	4,48

STATEMENT showing the number of Vessels and number of Tons on the Registry Books, &c.—Continued.

## PROVINCE OF MANITOBA.

Name of Place.	Vessels.	Tons.
Winnipeg	17	1,161
SUMMARY.	1,142	335,965
Nova Scotia	3,003 1,976 958 322 51	553,368 248,349 135,440 54,250 4,482
Total	7,469	1,161

	18	1873.	31	1874.	81	1875.	18	.876.	=	877.	18	1878.
Provinces.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
New Brunswick Nova Scotia Quebec Ontario	1,147 2,803 1,842 681	277,850 449,701 214,043 89,111	1,144 2,787 1,837 815	294,741 479.669 218,946 113.008	1,133 2,786 1,831 825	307,926 505,144 222,965 1114,990	1,154 2,867 1,902 889	324,513 529,252 228,502 123,947	1,133 2,961 1,951 926 342	329,457 541,579 248,399 131,761 55,547	1,142 3,003 1,976 958	335,965 553,368 248,349 135,440 54,950
British Columbia	90	4,095	35	3,611	_	3,685	40	3,809	6.5	3,479		4,482 1,161
Total	6,783	1,073,718	6,930	1,158,363	6,952	1,205,565	7,192	1,260,893	7,362	1,310,468	7,469	1,333,015

STATEMENT showing the Sea-going Tonnage and Tonnage of Steamers over 100 tons register of each of the Maritime States of the World, for 1878, taken from the Repertoire Général, for 1878 and 1879.

Nationality.	Steamers.	Gross Tonnage of Steamers.	Net Tonnage of Steamers.	Sailing Vessels.	Net Tonnage of Sailing Vessels.	Total Net Tonnage.
British, including Canada and the Colonies American (U.S.). Norwegian. Canada* German Italian French Russian Swedish Dutch. Spanish Greek Austrian Danish	3,216 516		2,264,684 368,576 38,679 116,620 172,932 55,512 221,799 69,031 54,975 78,607 101,643 4,940 54,421 44,104	18,394 6,050 4,157 6,635 3,201 3,135 2,972 1,814 1,901 1,292 1,590 1,969 626 1,180	5,599,018 2,075,832 1,374,844 1,216,395 914,674 963,675 595,932 413,719 365,367 329,215 406,018 246,006	7,860,692 2,4 4,418 1,413,503 1,333,015 1,087,606 1,019,137 817,732 482,963 468,694 443,974 430,858 410,958 300,427
South America Portuguese Turkish & Egyptian Central America. Asiatic Belgian. African(Liberia & Tunis) Divers Total	74 17	68,963 50,779 16,678 27,629 10,888 36,270 38,591 1,067	33,304 11,487 17,779 7,228 22,807 27,501 726	1,180 279 421 312 144 62 25 5 10 49,529	178,3-3 96,732 100,105 53,853 56,981 19,381 11,275 642 5,577	222,467 130,036 111,592 71,632 64,209 42,188 38,776 1,368 5,577

<sup>\*</sup> The tonnage of Canada is not included in the addition of this statement as it is included in the tennage of Great Britain.

List of Ports at which Vessels may be Registered, showing the Number of New Vessels Built and Registered in the Dominion of Canada, during the Year ended 31st December, 1878.

#### PROVINCE OF NEW BRUNSWICK.

Name of Port.	Vessels.	Tons.
Chatham Dorchester Richibucto Backville St. Andrews St. John Moncton	16 4 Nil. 4 27 1	3,577 3,691 Nil. 1,843 1,49 <del>0</del> 16,445 313
Total	56	27,368

#### PROVINCE OF NOVA SCOTIA.

	437
6 3	341 1,608
N11. 12	Nil. 1,056
7	405
10	1,824 2,346
4	4,209
	1,480 9 <b>8</b> 7
24	3,654
17	1,004 111
1	35 13
9	2,036
	7   14   4   10   5   7   Nil.   12   6

## PROVINCE OF QUEBEC.

Gaspé Montreal Amherst (M.I.) New Carlisle Quebec St. Johns	14 2 2 2 28	Nil. 1,304 59 93 <b>9,</b> 414 Nil.
Total	46	10,870

STATEMENT showing the Number of New Vessels Built and Registered in the Dominion, &c.—Continued.

#### PROVINCE OF ONTARIO.

Name of Port.	Vessels.	Tons.
Andread	N:1	Nil
Amherstburg	Nil.	N1.
Belleville	$\bar{i}$	6
Burweil	Nil.	Ni
Chatham. Cobourg Constitution of the Constitut	Nil.	Ni 20
ollingwood	2	4
ornwall	Nil.	Ni
arlington	Nil. Nil.	Nil Nil
overoderich	1	1411
lamilton	1	4
lope	3	14
apanee	4   1	62 14
wen Sound	2	5
ttawa	5	79
icton	Nil.	Nil Nil
owanarnia	Nil, Nil.	Ni
ault Ste. Marie	i	8:
anley	1	4
t. Catharines	Nil.	1: Nil
oronto	1	2
vintoy	Nil.	Nil
vallaceburg	1	7
Total	30	2,409
PROVINCE OF PRINCE EDWARD ISLAND	· <del>.</del>	
harlottetown	38	10,382
	1	
PROVINCE OF BRITISH COLUMBIA.		
	2	45
PROVINCE OF BRITISH COLUMBIA.	2	45
PROVINCE OF BRITISH COLUMBIA.	2	
PROVINCE OF BRITISH COLUMBIA.		
PROVINCE OF BRITISH COLUMBIA.  ictoria		15
PROVINCE OF BRITISH COLUMBIA.  ictoria	1   56   166	27,368 49,784
PROVINCE OF BRITISH COLUMBIA.  ictoria	1   56   166   46	27,368 49,784 10,870
PROVINCE OF BRITISH COLUMBIA.  ictoria	1   56   166   46   30	27,368 49,784 10,870 2,409
PROVINCE OF BRITISH COLUMBIA.  ictoria	1   56   166   46	27,368 49,784 10,870 2,409 10,382 45
PROVINCE OF BRITISH COLUMBIA.  ictoria	1   56   166   46   30   38	27,368 49,784 10,870 2,409 10,382

A. 1879

COMPARATIVE STATEMENT of New Versels, Built and Registered in the Dominion of Canada during the Years ended 31st December, 27,368 49,784 10,870 2,409 10,382 100,873 633 101,506 Tons. 1878. Vessels. .... 991 339 340 26 46 8 38 3,316 1,913 120,918 47,980 19,253 17,026 48 204 118,985 Tons. 1877. Vessels. 432 54 62 28 62 31,040 17,800 5,397 14,571 127,700 480 130 901 58,771 121 Tons. 1876. Vessels. 194 62 60 420 61 51 1874, 1875, 1876, 1877 and 1878. ..... 22,822 151,012 67,106 7,760 151,012 19,838 Tons. 1875. Vessels. ...... ..... ..... 102 480 65 177 53 83 480 20,796 190,756 84,480 10,797 24,634 183,010 Tons. 1874. Vessels. Manitoba ..... 73 20 88 490 496 Prince Edward Island ...... Add new vessels built in Canada, which proceeded to the United Kingdom under a Governor's pass without being registered Nova Scotia ..... Germany ..... Total ..... New Brunswick ...... Add new vessel which left Quebec for registration Provinces. Ontario..... Onepec .....

STATEMENT of Wrecked Vessels which were thoroughly repaired and re-registered during the Calendar Year of 1878.

Name of Vessel.	Rig.	Registered Ton- nage.	Port of Registry.
Annie Murchie	Brigantine Schooner Brigantine Schooner do do do do do do	200 199 79 190 50 61 109 49 133 212	St. John, N.B. Charlottetown, P.E.I. St. John, N.B. Charlottetown, P.E.I. Halifax, N.S. St John, N.B. Sydney, C.B. Halifax, N.S. St. John, N.B. Halifax, N.S.
J Westaway Grace Girdler gra abrina ornes dight of Home ddith Weir unious	Schooner do do do	278 187 635 53 22 51 96 506	Charlottetown, P.E.I. Halifax, N.S. Charlottetown, P.E.I. Sydney, C.B. Halifax, N.S. do do Ouebec.
foero	Schooner	82 133 56 51 82	Yarmouth, N.S. Charlottetown, P.E I. St John, N.B. Charlottetown, P.E.I. Chatham, N.B.

## COASTING TRADE OF CANADA.

As stated in last year's Report, the Act 33 Vic., cap. 14, respecting the coasting trade of Canala, enacts that no goods or passengers shall be carried by water from one port in Canada to another, except in British ships, but that the Governor in Council may from time to time declare that the Act shall not apply to the ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country. The Parliament of Canada was empowered to pass the Act alluded to under the provisions of the Imperial Act 32 Vic., cap. 11, intituled: "An Act for a nending the law relating to the Coasting Trade and Merchant Shipping in British Possessions," which came into operation in this country on its proclamation by the Governor General on the 23rd October, 1869.

It having been ascertained that the following countries, viz., Italy, Germany, Netherlands, Sweden and Norway, Austro—Hungary and Denmark allowed British ships or vessels to participate in their coasting trade on the same footing as their lxix

own national vessels, the ships of Italy, by Order in Council of the 13th August, 1873; those of Germany, by Order in Council of the 14th May, 1874; those of the Netherlands, by Order in Council of the 9th September, 1874; those of Sweden and Norway, by Order in Council of the 5th November, 1874; those of Austro-Hungary, by Order in Council of the 1st June, 1876, and those of Denmark, by Order in Council of the 25th January, 1877, were admitted to the coasting trade of Canada.

By the provisions of the Act 38 Vic., chap. 27, amending the Act 33 Vic., chap. 14, respecting the coasting trade of Canada, masters of steam vessels not being British ships are precluded, except in case of distress, from towing ships, vessels or rafts from one port or place in Canada to another. A circular was also issued by the Department of Customs, under date 8th March, 1878, to Collectors of Customs, calling their attention to the bearing of the Customs law, upon the treatment of wrecked vessels or property in Canadian waters, and informing them that no foreign vessels should be permitted to interfere with wrecked vessels or material in Canadian waters An Act however was passed by the Senate and House of Representatives of the United States, and approved by the President on the 19th June last, by which Canadian vessels of all descriptions may render assistance to Canadian or other vessels wrecked or disabled in the waters of the United States contiguous to the Dominion of Canada; but it is provided that this Act shall not take effect until a proclamation by the President declaring that the privilege of aiding American or other vessels wrecked or disabled in Canadian waters contiguous to the United States has been extended by the Government of the Dominion of Canada, and declaring this Act to be in force. question of giving the reciprocal privilege referred to to American vessels in Canadian waters is at present under consideration of the Canadian Government.

## REWARDS FOR SAVING LIFE.

In Supplement No. 2 will be found a list of persons to whom rewards or testimonials have been granted by the Government of Canada for humane exertions in saving life from Canadian vessels, and for generous services in caring for shipwrecked crews, and also of rewards given for saving life on the shores of Canada.

#### ESTABLISHMENT STAFF AT OTTAWA.

In Appendix No. 45 a statement is given showing the names of the members on the Establishment Staff of the Department at Ottawa, the rank held by each, and the amount of salary they severally received during the fiscal year ended 20th June, 1878.

#### OUTSIDE SERVICE.

The number of persons employed in the Outside Service on the 31st December, 1878, was as follows:—

Superintendent of Lights and Light-keepers, &c., in Ontario, and	
above Montreal	109
Officers of Agency in City of Quebec, and Light-keepers. Fog-whistle	
Keepers, &c., at and below Montreal, in the Province of Quebec.	182
Agent, Clerk, Messenger, Superintendent of Lights, Light-keepers,	
Fog-whistle Keepers, &c., in New Brunswick	66
Agent, Clerk, Messenger, Superintendent of Lights, Light-keepers,	
Fog-whistle Keepers, Attendants at Humane Establishments,	
&e., in Nova Scotia	178
Agent and Light-keepers in Prince Edward Island	23
Agent and Light-keepers in British Columbia.	15
Officers and Crews of Dominion Steamers and Vessels	110
Inspectors of Steamboats	9
Examiners of Masters and Mates, and Clerk to Chairman of Board	11
Harbour and River Police Montreal and Quebec	75
Officers and Servants in Marine Hospitals.	75
Shipping Masters	20
Harbour Masters	105
Officers of Observatories, Meteorological Observers, &c., receiving	
pay	73
Receivers of Wreck	28
Wharfingers	5
Fishery Overseers and Guardians in Ontario	93
do do Quebec	99
Commander of Fisheries Protection Vessel and Crew	26
Inspector of Fisheries, Overseers and Wardens in Nova Scotia	250
do do do New Brunswick	118
Fishery Overseers and Wardens in Prince Edward Island	35
Inspector of Fisheries and Overseer in British Columbia	2
Fishery Overseer in Manitoba	1
Making a total of	1,708

For the previous year the number was 1,647. In addition to the 1,708 mentioned above, there are 63 Registrars of Shipping, who act under the direction and control of this Department, but are at the same time Collectors of Customs at the various ports of registration, and receive no salary or fees in their capacity as Registrars.

There are 77 Measurers and Surveyors of Shipping at certain Ports throughout the Dominion, who act as officers of this Department, and are remunerated from their fees of office, although in addition to such office many of them hold a position in the Customs Service. Also, in addition to the above, by Orders in Council of the 21st April and 2nd December, 1874, the Chief Officer of Customs at each Port in the Province of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, where no separate Shipping Office has been established, is to be held and deemed a Shipping Master, is to receive the fees, make half-yearly returns to this Department and act in that capacity under its instructions.

From the above statement it will be seen that there are 73 officers of observatories, &c., who receive pay for the performance of their duties, but in addition thereto there are a large number of meteorological observers throughout the Dominion who give their services gratuitously.

I have the honour to be,

Sir.

Your most obedient servant,

WILLIAM SMITH.

Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES, OTTAWA, 1st January, 1879.

## PRELIMINARY REPORT

OF THE

## COMMISSIONER OF FISHERIES.

The Honourable James C. Pope,

Minister of Marine and Fisheries:

SIR,—The following preliminary Report on the Fisheries Service of Canada consists chiefly of accounts of expenditure and receipts, and tables of exports and imports of fish, during the fiscal year ended 30th June, 1878; including, also, a condensed statement of the approximate value of the Canadian Fisheries for the calendar year. The description of operations in the artificial propagation of fish, embraces the number of young fish raised and distributed from the deposits of 1877, and the quantities of ovalaid down in the course of last fall, which are now in process of hatching.

The loss of the steamer Lady Head which was engaged in protecting the Gulf fisheries, is briefly referred to.

Some correspondence is also published explaining what has been done since the date of my last Report regarding sawdust and mill-rubbish.

The statements of the various Fishery Officers, showing the condition, yield and value in detail of the Canadian Fisheries for the past year are not yet completed. A full report of the year's transactions, with the usual Appendices, is in course of preparation, and will be submitted as soon as possible to Parliament.

#### VALUE OF CANADIAN FISHERIES.

It is satisfactory to state that the Canadian fisheries are still improving. Their produce compares favourably with the preceding year's returns. In 1877, it was valued at \$12,029,957; and in 1878, at \$13,373,486, being an increase of nearly one and a-half millions of dollars. This was principally in the cod, mackerel, salmon and lobster fisheries

#### FISH TRADE.

The statements herewith, compiled from the Trade Returns, show that the value of fish exported was \$6,929,366, against \$5,874,360 in 1877, being an increase of \$1,055,006. The value of fish imported into the Dominion, and entered for domestic consumption, was \$1,300,468, against \$1,360,350 in 1877, or a decrease of \$66,882.

STATEMENT showing the Quantity and Value of Fish and Products of Fish Exported from the Dominion of Canada during the Fiscal Year ending 30th June, 1878.

Countries				<b></b>		-		,	
Codfish, including   Haddock, Ling   Addock, Ling	ARTICLES.	Countries.					CANADA I RODUCE AND NOT		
Haddock, Ling and Pollock; fresh			Quantity.	Value.	Quantity.	Value.	Quantity	Value.	
and Pollock, fresh. United States. 40 4 4			Lhs	•	Lhs	\$	Lbs	\$	
Description   Company	and Pollock,	1			L DS.	, •		4	
Description   Color    110011, 111111	Chrica Chris						<u> </u>		
Spanish W. Indies	do Dry Salted	United States Newfoundland	17,602 85,801 17,875	277,062 84,121	79		17,602 85,880 17,875	72,071 277,472 84,121	
Danish W. Indies   105		Spanish W. Indies	177,925		1	1		1,084,176 719,504	
British Guiana   25,038   106,510   25,038   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   380   3		Danish W. Indies Dutch W. Indies	4,676 105	20,136 437	1	60	4,691 105	204,271 20,196 437	
South America   76,884   380,413   76,884   380   380   10,476   10,476   1141   10,476   10,476   1141   10,476   10,476   1141   10,476   10,476   10,476   1141   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476   10,476								19,483	
Portugal.   10,476   50,979   10,476   50,979   11aly   32,880   144,166   32,880   144   14,685   32,981   144,168   32,902   11,510   2,302   11   14,585   32,903   114   14,585   32,903   114   14,585   32,903   114   14,585   32,902   11   11,510   2,302   11   11,510   2,302   11   11,510   2,302   11   11,510   2,302   11   11,510   2,302   11   11,510   2,302   11   11,510   2,302   11   11,510   2,302   11,510   2,302   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   11,510   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502   2,502			76,884	380,413			76,884	380,413 32	
Madeira		Portugal	10,476	50,979			10,476	50,979	
T74,665   3,189,336   127   590   774,792   3,189		Madeira	3, 291	14,585				144,166 14,585	
Cwt   18		Austria	2,302	11,510				11,510	
do Wet Salted         Great Britain         18         66         18           do Pickled         Great Britain         252         1,100         252         1           United States         477         1,630         477         1           British W. Indies         32         80         32         761         2           Lbs			774,665	3,189,336	127	590	774,792	3,189,926	
Mackerel, fresh	do Wet Salted	Great Britain		66	·····			66	
Mackerel, fresh United States   Lbs.   152,821   7,019   Lbs.   152,821   7	do Pickled	United States	252 477	1,630	•••••		252 477	1,100 1,630 80	
Mackerel, fresh         United States         152,821         7,019         152,821         7           do Preserved         Great Britain         15,922         2,015         15,922         2         15,922         2         15,922         2         2         15,922         2         2         53,104         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4 <td></td> <td></td> <td>761</td> <td>2,810</td> <td></td> <td></td> <td>761</td> <td>2,810</td>			761	2,810			761	2,810	
do Preserved         Great Britain         15,922   2,015   4,980         15,922   2 53,104   4         2 53,104   4         15,922   2 53,104   4         2 53,104   4         4           do Pickled         Great Britain         378   2,310   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378   378	Mackerel, fresh	United States		7,019				7,019	
Bris   Bris   States   Bris   States   Bris   States   Bris   States   Bris   States   Bris   States   Bris   Bris   States   Bris   Bris   States   British W. Indies   Spanish W. Indies   T,118   50,202   T,108   5,583   T,008    do Preserved		15,922				15,922	2,015 4,980		
Great Britain		İ	69,026	6,995	<i></i>		69,026	6,995	
Danish W. Indies   1,008   5,583		United States British W. Indies Spanish W. Indies	378 100,371 18,178 7,118	823,963 124,203 50,202	651	7,771	378 101,022 18,178	2,310 831,734 124,203 50,202	
Dutch W. Indies   5   36   5,768   5   55   5,768   5   5   5,768   5   5   5,768   5   5   5   5   5   5   5   5   5		r rench W. Indies Danish W. Indies			3	24	1,008	5,583	
British Guiana 948 7,229 948 7,  128,954 1,021,686 654 7,795 129,608 1,029,	I	Dutch W. Indies	5	36			5	2,416 36	
	1	British Guiana			••••••			5, 768 7, 229	
		Ī	128,954	1,021,686	654	7,795	129,608	1,029,481	
lxxiv		••		lxxiv		'.			

STATEMENT showing the Value of Fish, &c. -- Dominion of Canada—Continued.

Articles.	Countries.	Goods, th	E PRODUCE		NOT THE	Total E Produck Prod	AND NOT
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Lbs.	\$	Lbs.	   <b>\$</b>	Lbs.	\$
Halibut, smoked	United States	1,700	85		 	1,700	85
Herring, fresh	United States	Lbs. 447,825	12,505			Lbs. 447,825	12,505
do Pickled	Great Britain United States Newfoundland	Brls. 170 26,758 20	615 100,950 60	378	1,630	Brls. 170 27,136	645 102,580 60
	British W Indies SpanishW Indies French W.Indies Danish W. Indies	46,285 20,043 3,269 3,555	186,570 69,031 10,543 11,567			46,285 20,043 3,269 3,555	186,570 69,031 10,543 11,567
	Dutch W. Indies British Guiana Spain Denmark	2,532 50	10,717 200	1,000	4,000	2,532 50 1,000	235 10,717 200 4,000
	Norway Madeira Australia	4,532 70 516	13,592 208 2,064	1,436	4,308	5,968 70 516	17,900 208 2,064
		107,850	406,382	2,814	9,938	110,664	416,320
do Smoked	United States Newfoundland	3,152	12,150 44,895 60			1.bs. 239,951 3,802,961 3,152	12,150 44,895 60
	British W. Indies Spanise W. Indies French W. Indies Danish W. Indies	30,576 80,062 19,894	4,259 785 2,840 635			159,621   30,576   80,062   19,894	4,259 785 2,840 635
	Dutch W. Indies Hayti British Guiana Maderia	4,000 30,600 13,008 4,000	100 790 373 190 257			4,000 30,600 13,005 4,000 <b>9,952</b>	100 790 373 190 257
	South America St. Pierre et Miquelon France	9,952 982 2,800	34 40			982 2,800	34 40
Sea Fish, other,		4,401,559	67,408		<u> </u>	4,401,559	67,408
fresh	United States		43,699				43,699
	Great Britain United States British W. Indies	Bris. 352 2,4 <sup>6</sup> 1,170	960 28,675 5,307			Brls.   352   2,456   1,170	960 28 675 5,307
	Spanish W. Indies Danish W. Indies Hayti British Guiana	85 37 165 82	436 218 1,066 417			85 37 165   82	436 218 1,066 417
		4,317	37,079			4,347	37,079

STATEMENT showing the Value of Fish, &c. - Dominion of Canada. - Continued.

ARTICLES.	Countries.	Goods, THE PRODUCE OF CANADA.		GOODS, NOT THE PRODUCE OF CANADA.		TOTAL EXPORTS, PRODUCE AND NOT PRODUCE.	
	,	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Lbs.	<b>\$</b>	Lbs.	\$	Lbs.	\$
Sea Fish, other preserved	United States	1,160	116			1,160	110
		D.1-		D-1-			
Oysters, fresh	United States		282 135	Brls.		182 79	283 135
	Newfoundland Danish W. Indies St. Pierre et Mi-	202	384 10	*****		202	384 10
	quelon	100	262	12	90	112	352
		565	1,073	12	90	577	1,163
Lobsters, fresh	United States	Brls. 139	668			Bris. 139	668
do Preserved	Great Britain United States British W. Indies	Lbs. 6,589,784 1,488,715	742,068 180,990	Lbs. 313,824 7,468	<b>3</b> 8,496 93 <b>6</b>	Lbs. 6,903,608 1,496,183	780,564 181,926
	Spanish W. Indies Darish W. Indies Dutch W. Indies	20,532 2,016 648 2,400	2,696   270   70   275	••••••		20,532 2,016 648 2,400	2,696 270 70 275
	St. Pierre et Miquelon Madeira	336 1,440	40 180	••••••		336 1,440	40 180
		8,105,871	926,589	321,292	39,432	8,427,163	966,021
Bait	Newfoundland St. Pierre et Mi-		350 806	•••••	••••••		350
	queron		1,156				1,156
Sulmon fresh	Great Britain	Lbs.	10	Lbs.		Lbs.	· · · · · · · · · · · · · · · · · · ·
•	United States British W. Indies St. Pierre et Mi-		260,845 2,027	1,800	150	2,867,397 24,187	260,995 2,027
	quelon	3,564	275			3,564	275
		2,893,468	263,159	1,800	150	2,895,268	263,309
i	Great Britain United States British W. Indies Danish W. Indies	Lbs. 281 26,243 807 660	29 3,059 60 89			L bs. 281 26,243 807 660	29 3,059 60 89
	j	27,991	3,237			27,991	3,237

STATEMENT showing the Value of Fish, &c .- Dominion of Canada .- Continued.

							and the Company of the Company	
Articles.	Countries.		HE PRODUCE		, NOT THE OF CANADA	TOTAL EXPORTS, PRODU'E AND NOT PRODUCE.		
		Quantity	Value.	Quantity	Value.	Quantity.	Value.	
		Lbs.	\$	Lbs.	\$	Lbs.	\$	
Salmon, Canned	Great Britain United States British W. Indies South America Madeira	1,802,164 892 4,800	161,685 203,078 163 650 200			1,204,328 1,802,164 892 4,800 960	161,695 203,078 163 650 200	
	Australia	314,256	41,935			314,256	41,935	
		3,327,400	407,711	,		<u> </u>	407,711	
do Pickled	United States British W. Indies	4,775 1,228	53,478 -5,782	1,005	1	1,228	670 64,134 15,782	
	Spanish W. Indies Danish W. Indies HaytiBritish Guiana	94 51 1 51	876 606 19 555			94 51 1 51	876 606 19 555	
	South America. Australia. Sandwich Islan's Italy	1,805 50 1	95 13,369 350 15			1,805 50	95 13,369 350 15	
		8,134	85,815	1,005	10,656	9,139	96,471	
Fish, all other, fresh	Great Britain United States	•••	54 164,427				54 164,427	
			164,481				164,481	
do Pickled	Great Britain United States British W. Indies British Guiana	Brls. 261 3,956 5	318 15,674 37 30			Brls. 261 3,956 5	318 15,674 37 30	
	Dittish Odiana	4,224	16,059			4,224	16,059	
Fish Oil, Cod	Great Britain United States British W. Indies	Galls. 54,480 161,997 1,202	25,928 80,846 696	Galls.	80	Galls 54,480 162,157 1,202	25,928 80,936 696	
	!-  -	217,679	107,470	160	80	217,839	107,550	
do Seal	Great Britain United States	7,023 132	3,908			7,023	3,908	
	<u> </u>	7,155	4,028			7,155	4,028	
	Great Britain	10,461	4,498			10,461	4,498	
do Other	Great Britain United States	3,491 36,066	2,085 13,469			3,494 36,066	2,085 13,469	
	-  -	39,560	15,554			39,560	15,554	
	•	,				•		

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STATEMENT showing the Value of Fish, &c .- Dominion of Canada.- Continued.

ARTICLES. COUNTR	Countries.	Goods, TH	e Produce Nada.	GOODS, NOT THE PRODUCE OF CANADA		Total Exports, PRODUCE AND NOT PRODUCE.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Furs and Skins of Marine Animals	Great Britain United States Newfoundland		\$ 9,111 326 9,437	Lbs.	\$ 2,667 2,000  4,667	Lbs.	\$ 11,778 2,000 326
	Great Britain United States Newfoundland British W. Indies Spanish W. Indies Danish W. Indies Hayti St. Pierre et Miquelon		1,574 44,635 4 404 89 20 1,120		386 1,577 30		1,960 46,212 434 434 89 20 1,120
	decreament		47,850		1,993		49,843

## RECAPITULATION.

Norway Austria Madeira Australia Sandwich Islands	2,367,007 85,305 1,426,340 841,193 223,237 35,743 1,083 1,25,831 1,421 381,415 40 232 350,979 144,181 13,592 11,510 15,363 57,368 57,368	25,210 150 84 90 4,000 4,308	2,392,217 85,305 1,426,490 841,193 223,237 35,827 1,083 28,246 125,831 1,511 381,415 40 2322 50,979 144,181 4,000 11,510 15,363 57,368 350
Norway	13,592 11,510 15,363 57,368	 4,308	 17,900 11,510 15,363 57,368
Total  Total Export of Fish to United States  Total Export of Fish to other	6,853,975 . 2,367,007	 75,391 25,210	 6,929,366 2,392,217
Countriés	. 4,486,968 . 6,853,975	 50, 181 75, 391	 4,537,149 6,929,366

STATEMENT showing the Quantity and Value of Fish and Products of Fish Imported and Entered for Consumption in the Dominion of Canada, also the Duty collected thereon, during the Fiscal Year ending 30th June, 1878.

Countries	Іме	ORTED.		FOR HOME	Duty.
Altricles, Whence Imported.	Quantity	Value.	Quantity	Value.	Amount Collected
DUTIABLE.	Lbs.	. 8	Lbs.	\$	\$ cts
ish, salted or smoked Great Britain United States	9,106 33,141	876 2,304	9,106 34,351	876 2,353	
	42,247	3,180	43,457	3,229	434 57
do Oysters, fresh, in cans United States	······	248		248	43 47
do do Preserved United States China	Lbs. 13,842 1,284	2,327 214	Lbs. 13,236 764	2,176 129	380 81 22 57
	15,126	2,541	14,000	2,305	403 38
do Lobsters, preserved Great Britain United States	Lbs. 529 6,592	97 1,166	Lbs. 529 5,856	97 1,482	16 97 259 32
	7,121	1,763	6,385	1,579	276 29
do Other, preserved in Oil. Great Britain United States France Germany		22,328 12,705 7,877 9 383		23, 470 11, 157 7,016 9 229	4,107 64 1,952 33 1,227 80 1 57 40 07
		43,302		41,881	7,329 41
do do fresh, from Inland United States	Lbs. 33,2 <b>5</b> 4	1,159	Lbs. 33,254	1,159	203 08
do Oil, Cod Liver, medici- nal preparations Great Britain United States	Galls. 1,362 1,763	1,754 1,721	Galls. 1,362 1,763	1,754 1,721	307 44 300 91
	3,125	3,475	3, 125	3,475	608 35
o do Other	Galls. 4,412	3,870	Galls. 4,412	3,870	677 31
FREE.				!	
o Cod, Haddock, Ling and Pollock, fresh United States 2	Lbs. ,216,020	70,579	Lbs. 2,216,020	70,579	
o do Dry salted	Cwt. 42,380 2,106	129,740 8,415	Cwt. 42,380 2,106	129,740 8,415	
	44,486	138,155	41,486	138,155	

STATEMENT showing the quantity and Value of Fish, Imported, &c.—Dominion of Canada.—Continued.

	Countries	Impor	TED.	Entered 1 Consum		Duty.
Articles.	WHENCE IMPORTED.	Quantity.	Value.	Quantity.	Value.	Amount Collected.
FREE.—Continued.		Lbs.	\$	Lbs.	\$	\$ cts.
Fish, Cod, &c., Wet salted	United States Newfoundland	151 400	453 600	151 400	453 600	
		551	1,053	551	1,053	
do do Pickled	United States	Brls. 38	157	Brls.	157	
do do Smoked	United States	Lbs. 794,070	45,474	Lbs. 794,070	45,474	
do Mackerel, fresh	United States	9,932	809	9,932	809	
do do Pickled	United States British W. Indies	Brls. 1,195 1 <b>6</b> 4	8,0 <b>52</b> <b>82</b> 0	Brls. 1,195 164	8,0 <b>52</b> 820	
		1,359	8,872	1,359	8,872	
do Halibut, fresh	United States	Lbs. 22,822	999	Lbs. 22,822	999	
do do Pickled	United States	Brls.	66	Brls.	66	
do Herrings, fresh	United States	Lbs. 294,212	4,780	Lbs. 294,212	4,780	
do do Pickled	United States Newfoundland St. Pierre et Mi-	Brls. 4,633 1,521	13,592 6,469	Brls. 4,633 1,521	13,592 6,4 <b>6</b> 9	
	quelon	60	120	60	120	
		6,214	20,181	6,214	20,181	
do do Smoked	United States	Lbs. 401,786	11,852	Lbs. 401,786	11,852	
do Sea, other, fresh	United States	Lbs. 18,913	1,077	Lbs. 18,913	1,077	
do do Pickled	United States	Brls. 14	72	Brls.	72	

STATEMENT showing the Quantity and Value of Fish Imported, &c.—Dominion of Canada.—Continued.

,	Countries	Імрог	RTED.		FOR HOME	Dury.
Articles.	WHENCE IMPORIED.	Quantity.	Value.	Quantity.	Value.	Amount Collected.
FREE.—Continued. Fish, Herrings, Preserved	United States	Lbs.	<b>\$</b>	Lbs. 805	\$ 66	\$ cts.
do Oysters, fresh, in shell	United States	Brls. 2,689	11,514	Brls. 2,689	11,514	
do do in cans	United States	Lbs. 1,154,159	98,123	Lbs. 1,154,159	98,123	 
do do Shelled, in bulk	United States	Galls. 108,948	94,371	Galls. 108,948	94,371	
do Lobsters, fresh	United States	Brls. 462	2,723	Brls. 462	2,723	
do do Fresh, in cans	United States St. Pierre et Mi-	Lbs. 31,514	4,456	Lbs. 31,514	4,456	*****
	quelon	36,266	4,856	$\frac{4,752}{36,266}$	400	
do do Preserved, in cans.	United States	Lbs. 31,440	4,555	Lbs. 34,440	4,555	
do Bait	United States	Brls. 1,690	7,387	Brls. 1,690	7,387	
do Clams or other	United States	1,504	7,997	1,504	7,997	
do Salmon, fresh	United States Newfoundland	Lbs. 7,071 20	765	Lbs. 7,071 20	765 3	
		7,091	768	7,091	768	
do do Smoked	United States	Lbs. 3,449	364	Lbs. 3,449	. 364	
do do Canned	United States	Lbs. 198,493	24,220	Lbs. 198,493	24,220	
do do Pickled	United States	Brls.	396	Brls. 35	396	

STATEMENT showing the Quantity and Value of Fish Imported, &c.—Dominion of Canada.—Continued.

	Countries	Імров	TED.	ENTERED I CONSUM		DUTY.
Articles.	WHENCE IMPORTED.	Quantity.	Value.	Quantity.	Value.	Amount Collected.
		Lbs.	\$	Lbs.	\$	\$ cts.
Fish, All other, fresh	United States		3,774		3,774	
do do Pickled	United States	Brls. 128	641	Brls.	641	
	United States Newfoundland	Galls. 47,845 1,947	21, <b>27</b> 3 1,104	Galls. 47,845 1,947	21,273 1,104	••••
		49,792	22,377	49,792	22,377	
do do Seal	United States	Galls.	205	Galls. 460	205	
	United States Newfoundland	6,631 36	4,228 25	6,631 36	4,228 25	
		6,667	4,253	6,667	4,253	İ
do do Other	United States	62,505	22,955	62,505	22,955	ļ
	United States St. Pierre et Mi-		1,899		1,899	
	quelon Newfoundland		3,231		880 3,231	
			6,010		6,010	
Fish and Products of Fish, the produce of New Foundland.	Newfoundland		509,977		509,977	
Fish Oil do do	Newfoundland	Galls. 205,460	109,272	Galls. 205,460	109,272	

STATEMENT showing the Quantity and Value of Fish Imported, &c.—Dominion of Canada.—Continued.

## RECAPITULATION.

	Імро	RTED.		FOR HOME MPTION.	Duty.
COUNTRIES WHENCE IMPORTED.	Dutiable.	Free.	Dutiable.	Free.	Amount Collected.
	\$	\$	\$	\$	\$
Great Britain	25,055 26,000	599,614 639,096	25,297 24,166	599,614 639,096	4,523 11 4,160 74
France	7,877 9 597		7,016 9 358		1,227 80 1 57 62 64
St. Pierre et Miquelon		1,400 820		1,400 820	
Total	59,538	1,240,930	56,846	1,240,930	9,975 86
Total Imports from United States do Other Countries		599,614 641,316	24,166 32,680	599,614 641,316	4,160 74 5,815 12
Total	59,538	1,240,930	56,846	1,240,930	9,975 86
	Імро	RTED.		FOR HOME	DUTY Collected
		\$		\$	\$ cts.
Total, Dutiabledo Free	59,538 1,240,930			6,846 0, <b>93</b> 0	9,975 86
Total Imports of Fish and Fish Products, for the year ending 30th June, 1878.			1,29	7,776	9,975 86

## EXPENDITURE AND RECEIPTS.

The following statements exhibit the respective amounts expended and collected during the fiscal year ended 30th June, 1878, and the current expenses from the 1st July to 31st December, 1878. The expenditure for the period first above named is subdivided for the several Provinces and services as follows:—

# ONTARIO. Fishery Overseers' salaries and disbursements...... \$12,723 88

Fish-breeding	5,234	77
	<b>\$17</b> ,958	65
QUEBEC.		
Fishery Overseers' salaries and disbursements	\$13,662	<b>55</b>
Fish-breeding	-	
Fisheries Protection vessel	19,967	11
	<b>\$</b> 40,689	61
NOVA SCOTIA,		
Fishery Overseers' salaries and disbursements	<b>\$</b> 15,292	82
Fish-breeding.	3,550	00
	\$18,842	82
NEW BRUNSWICK.		
Fishery Overseers' and Inspector of Fisheries' salaries		
and disbursements	\$10,926	11
Fish-breeding	1,468	22
	<b>\$</b> 12,394	3 <b>3</b>
Under the head of Fish Breeding must also be reckoned		
Mr. Samuel Wilmot's salary and travelling disburse-		
ments as being applicable to the several Establish-		
ments in the Dominion	\$2,775	86
PRINCE EDWARD ISLAND.		
Fishery Overseers' salaries and disbursements	<b>\$1,836</b>	54
BRITISH COLUMBIA.		_
Inspector of Fisheries' salary and disbursements	<b>\$6</b> 90	00
MANITOBA.		
Fishery Overseers' salary	.\$200	00
Total Expenditure	\$95,387	81

And for the su	bsequent half	year as follow	s:			
	-	eers' salaries a		ements. \$	6,110	82
Quebec,	do	•	do	•••	8,716	64
Nova Scot	ia, do		do	•••	7,230	00
New Brun	iswick, do		do		5,105	67
Prince Ed	ward Island	•••••	••••••		687	50
Manitoba.		••••••			200	00
British Co	lumbia	••••••	•••••		850	00
Fisheries 1	Protection Ste	eamer "Lady	Head "	8	3,699	96
Fish-breed	ing		••••••	1	1,129	98
	Tot	al	•••••	<b>\$4</b> 8	3,730	57
The collections	during the fi	iscal year are a	rranged u	nder the fo	llowir	g heads:—
		ONTARIO.				
Rents, lice	nse fees, fines	and confiscation	ons	\$5	5,202	00
		QUEBEC.				
Rents, lice	nse fees, fines	and confiscation	ons	5	<b>5,45</b> 3	27
		NOVA SCOTI				
Taxes on n	nats fines and	forfeitures		1	,442	38
TUROS OH I	ious, imos una				,	
<b>T</b> D 4 4		NEW BRUNSWI		0	015	40
Rents, taxe	es on nets, no	es and forfeitu	.res	2	,010	<del>40</del>
	Total	•••••		\$14	,113	11
		TIONNERO TOOL	MD			
The number of	Piah aug Tigan	LICENSES ISSU		on of 1878	ara us	follows •
The number of .	rishery Licen		ig the seas	JII 01 1010	are as	. awonor
		ONTARIO.				
						28
-						31
						39
		······				
Spearing li	censes		• • • • • • • • • • • • • • • • • • • •		. 12	49
		QUEBEC.				
Salmon-net	fishing license	es			36	9
Sea-Trout	do				. 4	4
Brush Weir	s do				17	9
Eel Weirs	do		••••••	•••••••	1	.1
Seine	do				10	4
Gill-net	do	leeve	••••••		22	8
		lxxxv				

NEW BRUNSWICK.

Salmon-net fishing licenses	731
Herring weirs do	79
Bass do	355
Smelt do	<b>42</b> 8
Angling permits	<b>5</b> 5
NOVA SCOTIA.	
Trap-net licenses	87
Weirs do	8
Total	4,757
STAFF OF FISHERY OFFICERS.	
In 1878 the staff of fishery officers consisted of the following:-	
ONTARIO—Fishery Overseers (ex-officio Magistrates) and	
Fishery Guardians	93
Quebec-Fishery Overseers (ex-officio Magistrates) and Fish-	
ery Guardians	99
Nova Scotia-Inspector, Fishery Overseers (ex-officio Magis-	
trate) and Fishery Wardens	250
NEW BRUNSWICK-Inspector, Fishery Overseers (ex-officio	
Magistrates) and Fishery Wardens	118
PRINCE EDWARD ISLAND-Fishery Overseers (ex-officio Magis-	
trates) and Fishery Wardens	35
British Columbia—Inspector of Fisheries	2
Manitoba—Fishery Overseer (ex-officio Magistrate)	1
Gulf of St. Lawrence—Commander and crew of Fisheries	•
Protection Steamer "Lady Head"	26
·	
Making the total number of Fishery Officers now	
employed in the Outside Service	624
This regular staff receives occasional aid from lock-masters on th	
nals and lighthouse keepers, which arrangement saves employing in	certain places
her fishery officers at separate salaries.	

## REPORTS OF THE FISHERY OFFICERS.

Detailed reports of the various fishery officers engaged in the service will be printed in the Appendices. They will embrace particulars of the year's business in each fishery district, and also give details respecting the quantity and value of fish caught in sub-divisions of the respective fishery districts. They will also refer to the condition of different fishings, the state of the rivers, the observance of fishery laws, and proceedings taken for violation of the same.

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#### FISH CULTURE.

The total expenditure on account of this service for the fiscal year ended 30th June, 1878, amounts to \$20,088.80, divided as follows among the seven establishments devoted to the artificial reproduction of fish:-

Newcastle, Ontario	\$2,403	56
Sandwich, do	2,546	21
Tadoussac, Quebec	3,060	93
Gaspé Basin, do	2,069	05
Restigouche, do	1,555	87
Bedford Basin, Nova Scotia	3,400	00
Miramichi, New Brunswick	1,468	22
General disbursements, including Mr. S. Wilmot's salary		
and travelling expenses	$3,\!584$	96
	<b>\$</b> 20.088	80

\$20,088 80

A statement in detail of this expenditure will be found at Appendix No. 40. No new establishments were opened during the past season, but indispensable repairs and necessary improvements were made at Sandwich, Bedford and Miramichi.

#### FISH BREEDING.

The whole number of young fish distributed during the Spring of 1878 was 27,754,000, apportioned as follows:—

STATEMENT of the distribution of young fish at the several breeding Establishments in the Dominion of Canada, during the Spring of 1878, from the hatching of 1877.

NEWCASTLE ESTABLISHMENT, ONTARIO.							
	Kinds of Fish.						
Names of Rivers or Places where Fry were placed or sent.	Salmon.	California Salmon.	Salmon Trout.	Speckled Trout.	Whitefish.		
Wilmot's Creek, Ontario Barber's do do	240,000 40,000	26,500 1,000	50,000		10,000		
Duffin's do do	20,000 10,000 50,000	1,000 1,000					
Saugeen River do	40,000 10,000 10,000	5,000	********				
Credit do do	10,000 20,000 10,000		500,000 20,000	**********	1,000,000		
Clear do do	10,000 10,000 20,000	500	20,000 20,000				
Bedford Lakes, Nova Scotia	10,000		10,000 10,000	10,000	200,000		
Cushog do Quebec	10,000 20,000		10,000 10,000		30,000 30,000 30.000		
Total	600,000	<u> </u>	650,000	20,900	1,300,000		

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STATEMENT of the distribution of young fish, &c.—Dominion of Canada.—Continued.

## SANDWICH ESTABLISHMENT, ONTARIO.

Names of Rivers or Places	Kinds of Fish.					
where Fry were placed or sent.	Salmon.	California Salmon.	Salmon Trout.	Speckled Trout.	Whitefiish.	
Toronto Bay, Ontario					220,000 220,000 20,000,000 20,440,000	

## BEBFORD ESTABLISHMENT, NOVA SCOTIA.

	Total	••••		1,400,000		8,000		160,000
andy	<b>u</b> U	40	! !			• • • • • • • • • • • • • • • • • • • •	•••••	10,000
ily	do do			******		***************************************		10,000
				******		8,000		120,000
a Have	do C	alifax, N.S	, 4.5.	20,000		0.000		100.000
Annapol	is do C	o. Annapons, o. Lunenburg	TI-Dead	20,000		******		
	nd's River	o. Annapolis,	N S			•••••		
fiddle	do			40,000				***** **** * ***
West	go	<u></u>		70,000			*********	****** ** >- < * * * * * * * * * * * * * * * * * *
Cast		Pictou, N.S		70,000 80,000	**** *****	•••••	· • • • • • • • • • • • • • • • • • • •	1
Colly	do do Co			20,000			***************************************	20,000
rench	do	do do	•••	20,000			1	
ngonish		do						
Debert	ďο	do	•••	20,000 20,000				
Vorth	ďο	do	•••	40,000		ļ. <b></b>		
tewia ck		do	•••	40,000			•••••	
Salmon		Colchester, N	·.S	80,000	••••••			·····
laccan	do	do		20,000	i · · · · · · · · · · · · · · · · · · ·			
ugwash		ďο	•••	20,000				
Wallace	₫o	do	•••	40,000		} ······		
		Cumberland,		80,000				·····
Jasperes	ux do	a do	N 0"	40,000	¦ · · · · · · · · · · · · · · · · · · ·			
Jornwal		ďο	•••	40,000	ļ			
Debert	do	do	•••	40,000			·	····
Kennetc		do	•••					
Windsor		ďο	•••	40,000				
Meander			N.S					
Gays	do							
North E			•••				l	·
Ingraha	n do		•••					
Indian	do	do		20,000				
Pennant		do		20,000				
Nine Mil	es do	do	•••	20,000				
Mosher	do		•••	20,000				1
Little S		do	•••	20,000				
Big Saln		do		1 000				1
Shubens				'				
Sackvill	e do	do	-,	80,000				
dugano	lahait Rive	r, Co. Halifar	x. N.S.	120,000				1

STATEMENT of the distribution of young fish, &c.—Dominion of Canada.—Continued.

		TADOUSS	AC ESTA	ELISHMENT,	QUEBEC.			
Names of Rivers or Places			Kinds of Fish.					
where Fry	rere pla	sced or sent.	Salmon.	California Salmon.	Salmon Trout.	Speckled Trout.	Whitefish.	
Sta Maronaritá	River	Quebec	253,000					
Petites Isles	do	do	117,000		******	*******		
Anse St. Jean	do	do	90,000	*****			******	
Anse à Cheval	do	do	68,000	*** ** ******			****** *****	
A Mars	do	do	67,000			*******************************		
Petit Saguenay	do	do	32,000					
St. David	do	do	26,000	1	f		}	
St. Thomas	do	do	18,000				•••••	
Jacques Cartier	do	do	16,000					
Fresh Water Po	nd.	do	20,000	1		1		
	,	40			1			
Total	•	•••••••	707,000		 			
Dartmouth Riv St. John York	er, Que	bec	300,000 200,000					
iork Malbaie	do	******	150,000	ļ		******		
Grand	do	***************************************	40,000		,	1		
Grand Pabos	do do		30,000 30,000		,	***************************************	, • • • • • • • • • • • • • • • • • • •	
		***************************************						
Total		•••••	750,000				***************************************	
		RESTIGOU	HE EST	ABLISHMENT	r, QUEBEC.	1	1	
Main Restigond	ne Rive	r	350,000					
Grand Cascape	lia do		90,000	******				
Metapedia.	do	*****************	50,000			***************************************		
Upsalquitch	do	***************************************	250,000				*******	
Amoni	do	****	50,000					
Causapscal	do	*******	50,000					
Little	do	*****	50,000					
Nipissiquit	do	****** ******* *****	50,000		!			
Little Cascaped			40,000	·		·	· · · · · · · · · · · · · · · · · · ·	
D	a .		35,000	1	I			
Bonaventure	do	***************************************	30,000					

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STATEMENT of the distribution of young fish, &c .- Dominion of Canada.-Continued.

# MIRAMICHI ESTABLISHMENT, NEW BRUNSWICK.

	Kinds of Fish.					
Fish-Breeding Establishment.	Salmon.	California Salmon.	Salmon Trout.	Speckled Trout.	Whitefish.	
North-West Miramichi River, N.B	100,000 100,000 95,000 50,000 50,000 45,000 45,000 40,000 30,000 20,009					
Total	665,000		************		***************************************	

# RECAPITULATION.

Newcastle Est Sandwich Bedford Restigouche Gaspe Tadoussac Miramichi	ablishme do do do do do do	ent, Ontario  do  N.S  Quebec  do  N.B	1,404,000 1,015,000 750,000 707,000 665,000	35,000	650,000 8,000	20,000	1,300,000 20,440,000 160,000
Tota	al Distri	bution in 1878	5,141,000	35,000	658,090	20,000	21,900,000

Salmon	5,141,000
Salmon Trout	658 000
Speckled Trout	90,000
W 1116(1511	21,900,000
Grand Total	07 22 000

#### SUMMARY OF OPERATIONS IN THE AUTUMN OF 1878.

The following numbers of Vivified Eggs were deposited in the Hatching-troughs of the several Fish-breeding Establishments in the Dominion, in the Fall of 1878.

				<del>,</del>
Establishments.	Salmon.	Salmon Trout.	Speckled Trout.	Whitefish.
Newcastle, Ontario. { Lake Ontario, Salmon California do	i '	1,840,000	144,000	1,000,000
Sandwich do				15,000,000
Gaspé, Quebec	1,650,000			
Tadoussac, Quebec	1,375,000			******
Restigouche do	1,560,000		25,000	******
Bedford, N.S,	2,500,000			
Miramichi, N.B.	1,000,000		******	**** ***********
Total	8,942,000	1,840,000	169,000	16,000,000

#### RECAPITULATION.

Establishments.	Number of Vivified Eggs.
Newcastle, Ontario	3,841,000
Sandwich do	15,000,000
Gaspé, Quebec	1,650,000
Tadousac, Quebec	1,375,000
Restigouche do	1,585,000
Bedford, N.S	2,500,000
Miramichi, N.B	1,000,000
Total	26,951,000

#### BALMON ANGLING.

The total sum accruing as rents under leases of angling privileges amounts to about \$5,000.

The number of salmon caught by anglers is reported at 2,684, about the same as last year's catch. Some of the best streams on the north coast, such as the Natashquan, St. John and Romaine were not angled, and others, such as the Mingan, Kegashca, &c., &c., were only partially fished.

It is also apprehended that in some streams the actual catch is much underrated, owing to the difficulty of procuring accurate returns from the lessees and their friends.

The local fishery officers uniformly report the spawning grounds as having been filled with breeding fish last season.

Schedule of Salmon Angling in the Leased Rivers of the Provinces of Quebec and New Brunswick during the Season of 1878.

2.00	Diuns	WICK GU	ing t	пе ве	ason	or 1070.
Names of Rivers.	No. of Salmon,	Total Weight.	Average Weight.	Weight of the Largest Fish.	Weight of the Smallest Fish.	Remarks.
Du Gouffre  Murray Ste. Marguerite, N.E. Branch do N.W. do Little Saguenay Anne St. Jean Sault au Cochon Laval Godbout Romaine Mingan Mistassini Besocie Manitou Moisie Kegashka	28 7 3 239 17 1 1 3 154 6	Lbs.  105 175 1,021  366 105 38  2,811  239 5 38  3,396 90	Lbs.  15 174 164 1318 1128 1128 1128 1281 1281 1281 1281	Lbs.  33  26 25  26 31 18	Lbs. 9 8 10 7	3 Grilse and 2 Winnonish. Not angled, 1 Grilse. Anglers arrived too late. Not angled. do Water low; no fishing in lower pool Not angled. Angled only during four days. Only partially angled. oo Not angled. Angled only during a couple of days.
St. John	74	1,200	18	30	10	Not angled. do do do do
Metis	42 60 23 62	937 600 149 1,248	22½ 10 6½ 20½	12 39	12 31/2 9	
Magdalen	18 97 67 73 129	268 2,149 817 1,740 2,165	$ \begin{array}{c c} 14\frac{15}{22\frac{1}{6}} \\ 12\frac{1}{5} \\ 23 \\ 16\frac{3}{6} \end{array} $	31 35½ 32	7 9	
Grand Pabos	18 40 7	189 664 200	10½ 16¾ 28¾	17 28	6	Not angled.
Grand do Matapedia Upsalquitch Restigouche, Lower Division do Middle do	305 171 2 177 413	3,173 3,952 17 2,887 9,402	26 23 8½ 22 22 22¾	50 41 16		One salmon, 56½ lbs., killed. Only angled one day.
do Upper do S.W. Miramichi Nepiasiguit	367 12 13	5,928 120 138	161 10 10 <sub>13</sub>	40 32 12½	7	No returns.
do (Rough Waters)	2 694	630	197		91	
T V 403 T * 10000 \$00000 40000 0 * 140000	2,684	46,962	171	50	34	at:

# LOSS OF THE STEAMER Lady Head.

This vessel was totally wrecked on the 10th of August last, at Point Jaune, on the south coast of the River St. Lawrence. She had been previously run ashore near Seven Islands Bay, on the north coast, and sustained serious damage, besides having, on two other occasions, narrowly escaped shipwreck. The Lady Head was an iron vessel of about 300 tons, and was built in 1857, at a cost of \$68,000. Excepting the expense of running her, she was well adapted to the service. There was a crew on board of 26 men, including a Sailing Master, first and second Mates, under command of Napoleon Lavoie, Esq., as Stipendiary Magistrate. The following is the report of the inquiry into her loss, made by direction of this Department, before the Quebec Harbour Commissioners:—

### QUEBEC, 16th October, 1878.

Pursuant to an Order in Council dated Government House, Ottawa, 3rd September, 1878, appointing the Harbour Commissioners of Quebec, a Court or Tribunal to hold a formal investigation into the wreck of the Steamship "Lady Head," in accordance with the provisions of the 4th Section of the Canadian Act 37 Vic., Cap. 39 and the 5th Section Act 32-3 Vic., Cap. 38, a quorum of the members of the Quebec Harbour Commissioners met at their office Custom House, City of Quebec, 24th September, 1878 and having the oath prescribed by law opened the investigation into the loss of the Steamship "Lady Head," continued it 25th and 30th of same month, and concluded on 14th instant, witnesses being Napoleon Lavoie, Fishery Officer; Cyprien Morin, Sailing Master; Achille Boucher, 1st Officer; Nazaire Deroy, 2nd Officer; Philippe Fraser, Sailor and L. A. Blanchet, Clerk in Marine and Fisheries Department, Quebec.

The Steamship "Lady Head," registered towns two hundred and eighty-three, whether the Charles and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Canadian Act and Can

The Steamship "Lady Head," registered tonnage two hundred and eighty-three, owned by the Government of the Dominion of Canada for protection of the Fisheries, sailed from Ellis Bay, Anticosti, near the West Point Light at 7.35 p.m., 9th of Aug., weather fine and calm. At about 10.30 p.m., it became overcast and hazy, and a few minutes after midnight, fog set in, which momentarily increased in density, till one a.m., when engines were slowed; at about 1.30 the lookout man called out land ahead, the engines were stopped and reversed, but the ship immediately took the ground and remained fast on what was afterwards ascertained to be Point Jaune, eight miles west of Fox River, pumps, men and material were obtained in due course, every exertion was made to save her, but without avail, and she became a total wreck.

The "Lady Head" had a crew of 26 hands all told, was commanded by Napoleon Lavoie, Fishery Officer, who held his appointment direct from the Marine and Fisheries Department, Ottawa, and by same authority he selected officers and crew. No articles were signed, and the legal means of enforcing discipline on board was thus wanting. Commander Lavoie appointed Cyprien Morin, who held second-class certificate, as master to navigate the vessel; Achille Boucher as first mate, Nazaire Deroy second mate, neither of whom held certificates, and in event of the sailing master being off duty from sickness or otherwise, there was no one on board who

could pretend to navigate the vessel with safety.

The Commander seems to have occupied a peculiar position, he only commanded in Port, and the sailing master had charge at other times; in this way, there was a

divided authority, which was subversive of discipline.

On the night in question the 9th of August, Boucher the first mate went on duty at eight o'clock, off West Point Light, and the sailing master gave him the course to make Cape Rosier Light; in his evidence the sailing master states he had no confidence in the accuracy of his first or second mate, yet on this short voyage from Anticosti to Gaspé, he went below about 9.30 p.m., and did not return to the deck till 12.20 a.m., at which time the weather was very foggy, and on going on the bridge, where second mate was in charge, having relieved first mate at midnight; he found the

compass lights out, and the officer on duty quite unconcerned at the circumstance; he then inquired of the "lookout" if he had seen Cape Rosier Light, and was answered in the negative; how could he have expected it to be seen at that time, does not appear; he then went aloft to try if he could see over the fog, and remained there fifteen or twenty minutes. On returning to deck he ordered the engines to be put at half speed, gave orders to haul in the Patent Log and found forty-five or forty-six miles of distance was recorded; went below to examine his chart, returned on deck just in time to hear signal from bridge "to stop the engines," ran there himself and ordered them "full speed astern;" in about two or three minutes the ship was hard and fast ashore about ten miles out of her course, in a voyage of less than fifty miles. During the previous hour and a-half of dense fog; the ship was crossing the path of upward and downward steamers and sailing ships, yet the regulation to sound the steam whistle was entirely reglected, nor was the lead once used. Altogether it has become painfully apparent to the Commissioners that there was an entire absence of discipline on board, and a condition of things existing that made the loss of the vessel only a question of time.

#### JUDGMENT.

The Court decides in virtue of its authority to suspend the certificate of Cyprien Morin for a period of six calendar months from the 16th instant, and finds that the first and second mate were incompetent to fulfill the duties they had to perform.

(Signed)	A. WOODS,
( )	Chairman.
"	JOSEPH SHEHYN,
"	JOSEPH PLAMONDON,
"	WILLIAM RAE,
"	E. W. SEWELL,
"	J. H. SIMMONS,
"	A. H. VERRET,
SecTrea	s. Q.H.C, Clerk of the Court.

In addition to the above investigation, official inquiries of an informal character, by this Department, were made respecting the running and discipline of the vessel, from which it appeared that gross carelessness and incompetency were the causes of disaster. It was thought advisable to make an example which might afford better security in future for public property entrusted to the care of government officers. Commander Lavoie was therefore relieved of his command, by Order of the Governor General in Council, and the Sailing Master and Mates were discharged from further employment.

#### SAWDUST AND MILL RUBBISH.

The following circular explains what action was taken pursuant to the recommendations in the report of John Mather, Esq., published last year:—

Circular.

DEPARTMENT OF MARINE AND FISHERIES,
FISHERIES BRANCH,
OTTAWA, 24th January, 1878,

SIR,—The Minister desires me to acquaint you with the decision arrived at by the Government upon the petition of mill-owners on the Lower Ottawa River and certain tributaries to be exempted under the Act 36 Vic., Cap. 65 as regards sawdust and other mill offals.

You are already aware that in pursuance of an Order in Council of the 26th March, 1877, careful inquiry has been made by John Mather, Esq., acting on behalf

of the Government, into the situation of each mill, in order to ascertain the practicability and cost of compliance in each instance with the requirements of the said statute. Several communications have been had with the mill-owners during the course of such investigation; and it has been generally understood that the manufacturers admit the necessity and recognize the practicability of so disposing of other mill offals (excepting sawdust) as to avoid all possibility of furthur injuring navigagation. The suggestion made by Mr. Mather regarding alterations in the several mills have also been made known to you, and have formed the subject of discussion between the minister and the mill-owners as well as amongst themselves and Mr. Mather. It is also within your knowledge that while the practicability of burning the sawdust has been satisfactorily shown, the estimated expense of constructing furnaces, &c., appears to be very formidable. The Government, as you are aware, desire to avoid requiring such a serious outlay on the part of the proprietors if the public interest can be otherwise protected. They also feel desirious to relieve the mill-owners from further anxiety and danger of prosecution as respects the disposal of sawdust.

It is proposed therefore to require certain alterations to be made in each mill to ensue the better observance of the law affecting other mill rubbish; and upon the Minister being certified that such have been made he will be prepared to recommend formal exemption in the matter of sawdust as provided by the statute.

These alterations are as follows:-

1st. Spouts should be constructed at the upper end of all logways to carry off the bark baought up by the jack ladders; these spouts should be so made that nothing over two feet long could pass through and reach the water.

2nd. The floor next under the sawing floor, should be laid close all over, except a hatch to enable workmen to reach the water wheels. The hatch should not be

near the saw-gates.

3rd. Saw-gates should have fixed racks in the lower floor, surrounding the

pitman, the opening in the racks should not be more than one inch wide.

4th. All circular saws should have the openings under them filled with gratings, the openings of which should not be more than one inch square, and in addition should have crooked spouts to reach through the floor immediately below, so constructed that nothing over one foot long could pass through.

5th. All mill windows overlooking the water should be covered with wire net-

ing with meshes one inch square.

6th. Fences should be put round all yards and platforms contiguous to the water

whenever it can be done without interfering with the operations of mills.

Mr. Mather has been instructed to see that these conditions are fulfilled at each mill before another season's sawing shall be commenced, and he is authorized to modify or otherwise adapt them to the situation or special circumstances of each mill, according to his discretion, so long as the main object is fully attained. He is required to report progress, so that the Government may judge of the diligence observed and be enabled to take any such alternative action as appears necessary.

There is reason to hope, however, that no further difficulty will arise, but that the present measure of justice to the public and relief to the mill-owners will now be

met with a prompt and effectual response.

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

W. F. WHITCHER.

Commissioner of Fisheries.

To Mr.

# DEPARTMENT OF MARINE AND FISHERIES, FISHERIES BRANCH,

OTTAWA, 28th January, 1878.

Sir,—Reverting to an order given to you under an Order in Council of 26th March, 1877, and to your subsequent report concerning the Ottawa mills, as also to the subject of interviews between yourself and the Minister, and conferences with the millowners, I am now to instruct you that the Government have decided on requiring certain alterations in these mills, such as may insure the better observance of the law as affects mill-rubbish other than sawdust. These alterations are specified in the accompanying copy of the circular addressed to mill owners, subject to such modifications or other changes as you may find necessary. The Minister desires you to see that these alterations are made in a satisfactory manner and in due time, under your own superintendence, and that you will inform the Department of the progress made in each instance.

Whenever it shall appear from your reports that these requirements have been fulfilled, the Minister will be prepared to recommend to the Governor General in Council the issue of a proclamation exempting the mills in question from the opera-

tion of the Act 36 Vic., cap. 65, as respects sawdust.

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

> W. F. WHITCHER, Commissioner of Fisheries.

John Mather, Esq., Ottawa.

RICHMOND ROAD, OTTAWA, 16th April, 1878.

Sir,—Referring to your instructions to me dated 28th January last, relative to certain alterations in sawmills, to insure the better observance of the law as affects mill rubbish other than sawdust, I beg leave to report that I have been at nearly all the mills from time to time, and have examined and shewn what is required to be done. I expect to be able to report soon that the alterations of some are complete. Several will not be opened for sawing till late in the summer; they are also likely to have the necessary changes made in good time.

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

JOHN MATHER.

W. F. WHITCHER, Esq., Commissioner of Fisheries.

OTTAWA, 15th January, 1879.

Sir,—Referring to your instructions to me dated 28th January, 1878, relative to certain alterations required by your Department to be made on saw mills on the Ottawa and its tributaries, to ensure the better observance of the law as affects mill rubbish other than saw-dust, and which I was desired to see properly carried out, you had a report from me dated 16th April last, stating the progress then made, and I have the honour now to report further as follows, viz:—

That Messrs. McLymont & Co., New Edinburgh,
Messrs. Jas. MacLaren & Co., do
Messrs. Sherman, Lord & Co., Hull,
E. B. Eddy, Esq., do
J. R. Booth, Esq., Ottawa,
Messrs. Perley & Pattee, Ottawa,
Levi Young, Esq., do
Messrs. Bronson & Weston do
Messrs. Gilmour & Co., Chelses,
Xevi

have all followed my instructions and suggestions, in so far as that each of the mills owned and un by them were so changed, that practically nothing but saw-dust and the chips from the slab-cutters reached the water during the past season's sawing, as was, I begalso to report, proved by my own observation when I visited the river periodically during the season;

That Messrs. J. A. Cameron & Co., North Nation,
Messrs. James MacLaren & Co., Buckingham,
Messrs. Ross, Brothers,
do
A Hagar, Esq., Plantagenet,

have not paid any attention to my representations or suggestions, and so far as I know have done nothing. All rubbish, as well as saw-dust, from their mills escapes and fall-in-o the river the same as heretofore.

A. A. Baldwin's mills have not been in operation during the past year.

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

JOHN MATHER.

W. F. WHITCHER, Esq., Commissioner of Fisheries.

#### OUTSIDE STAFF.

The further report proposed will suggest some changes and improvements in the staff which it is hoped may meet your approval.

I have the honour to be, Sir,

Your obedient servant,

W. F. WHITCHER, Commissioner of Fisheries.

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# APPENDIX No. 1

REPORT OF THE AGENT OF THE DEPARTMENT OF MARINE AND FISHERIES AT QUEBEC, FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

To the Hon. Sir A. J. SMITH, K.C.M.G., Minister of Marine and Fisheries, Ottawa.

SIR,—I have the honour to transmit the Eleventh Annual Report of this Agency for the fiscal year ended 30th June, 1878.

Under their respective headings, I shall lay before you the details connected with the several services under my supervision, comprising:

The Government vessels;

The maintenance of Lighthouses, Buoys, Beacens, Humane Establishments,

Fog Signals and Lightships, below Quebec;
The maintenance of Lighthouses and Lightships above Quebec, as far as Montreal Harbour, including eight Lighthouses on the Richelieu River, at the outlet of Lake Champlain;

The construction of new Lighthouses;

The Quebec River Police Force;

The shipment of Mariners;

Investigations into and reporting upon the causes of shipwrecks and casualties at sea and in the river;

The protection of the Fisheries and Fish-Breeding Establishments, &c., &c.,

The Government Steamers stationed at Quebec, and performing duties in this district, consist of Steamships "Napoleon III," "Druid," and "Lady Head," and steam-launches "Dolphin" and "Wannonish."

The steamship "Napoleon III," under the command of Captain A Despres, is a powerful iron steamer, built in 1856 by Messrs. R. Napier & Sons, Glasgow, Scotland,

and is 300 nominal horse-power, but can be worked up to 700. She was of 494 tons gross measurement, and carried about 2,000 barrels, but her carrying capacity has been largely increased, by the addition of a fore and aft spar deck, to about 4,000 barrels. She has a powder magazine capable of carrying 15,000 lbs. of powder, and which can be completely flooded with water in case of fire on board. carrying capacity is employed every trip in taking down supplies and provisions to the lower portions of my district, commencing at Point des Monts, North shore of River St. Lawrence, taking in Labrador, Island of Anticosti, Straits of Belle Isle. North shore of Newfoundland, Baie des Chaleurs, Magdalen Islands, North shore of New Brunswick and Prince Edward Island, and requires two trips, one in the spring, and the other in the fall, to meet the demands of this extensive and important district. Captain Despres has shown praiseworthy caution and promptitude in the sailing of this steamer, while supplying the many dangerous points, and Mr. Wm. Barbour, the Chief Engineer of this Agency has fulfilled the duties of inspecting and keeping the lights and machinery connected with the many revolving lights and fog alarms in order in a very creditable manner.

The steamship "Druid," Captain A. Marmen, is a side-paddle-wheel steamer, built of iron in 1856 by Messrs. Todd & McGregor, of Glasgow, is 170 horse-power, and carries about 1,000 barrels. She is adapted for and well employed in supplying lighthouses, lightships and fog-alarms from Point des Monts to Montreal, and in

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laying down, taking up and keeping in position the large number of buoys below Quebec. Besides sailing his vessel, Captain Marmen performs the duties of inspecting the lighthouses, and attending to other matters in a prompt and efficient manner. The "Druid's" speed would be greatly improved, and a considerable saving in the consumption of fuel effected, if she were furnished with patent floats, and a surface condenser, the cost of which would be saved in two or three years by the advantages

gained.

The steamship "Lady Head," under the direction of Commander N. Lavoie, and sailed by Captain C. Morin, was built of iron by Messrs. R. Napier & Sons of Glasgow, in 1857, and is of 100 horse-power nominal, with a carrying capacity of about 1,000 barrels. She is employed during the season of navigation as an armed cruiser, for the protection of the Pisheries, and her services are fully reported upon in the Fisheries Branch of the Annual Report, by Commander Lavoie. This vessel ran ashore on the night of the 10th August last at Point Jeunne near Fox River, Gulf of St. Lawrence, and became a total wreck; no lives were lost. Efforts were made by the Department to save her, but finding them ineffectual after expending about \$3,000, the wreck was sold at public auction for \$650. All the rigging, sails, anchors, chains and furniture of all description was saved, and brought to this Agency. The purchaser, Mr. L. Leclaire, after trying to save the vessel, and expending considerable money, abandoned her. An official enquiry has been ordered into the cause of the disaster.

abandoned her. An official enquiry has been ordered into the cause of the disaster.

The police steamer "Dolphin," sailed by Chief Coxswain Cunningham, of the Quebec River Police Force, is a small craft 50 feet long, 12 feet beam, draws about five feet of water, and is propelled by a 10 horse-power engine; she is employed on

police duty in the harbour of Quebec.

The police launch "Wannonish," is also employed on River Police service during the season of navigation under Coxswain Battle. This vessel was entirely renewed last winter, the hull being built on the Island of Orleans, by Mr. A. Pouliot, at a cost of \$425. Her engines and boiler are found of considerable use in turning the lathes in the machine shop of the Agency during the winter, when a large portion of repairs and outfits are made to the different services under my control.

In the forge and machine shops connected with the Agency, are executed the principal repairs to the vessels and lighthouses in the district. The forge contains four bellows and anvils, and some valuable tools, almost in constant use, especially during the winter, when frequently several more fires are employed to meet the

requirements of the service.

All repairs to the hulls of the iron vessels are attended to by the master smith, Mr. Charles Vezina, whose ability has been fully displayed in the excellent work he has turned out during twenty years in the employ, notably the extensive repairs to the steamship "Napoleon III."

Near the forge is the machine shop and turning lathe, driven by steam from the

boiler of the launch "Wannonish" in winter.

In this shop a great variety of work is performed for engines and apparatus connected with fog whistles and revolving lights, by the engineers of the steamers under yearly salary, thus keeping them profitably employed.

The carpenter's shop under the direction of Mr. Telesphore Routier, employs

The carpenter's shop under the direction of Mr. Telesphore Routier, employs several men in making models for machinery, castings, repairs to lighthouses, &c., and contains a large number of valuable spare models, carefully preserved for use.

The accommodation afforded by the large adjoining premises (the Queen's wharf and stores) having been acquired by the Department, has enabled me to store several hundred barrels of petroleum in bomb-proof vaults, thereby effecting an annual saving of about \$600, and having the articles of supply near at hand. The upper portion is used for storing boats, rigging, sails, spars, &c., and the west end made into quarters for the River Police Force.

During the past winter the coxswains of the River Police, retained at half-pay, were employed on repairs and outfitting, and fully earned the amount they received.

Repairs are absolutely necessary to preserve the Queen's and the Department wharves from becoming dangerous, and a small amount this year has again been spent for that purpose.

COAST SERVICE, LIGHTHOUSES, LIGHTSHIPS, FOG-SIGNALS, PROVISION DEPÔTS BUOYS AND BEACONS ABOVE AND BELOW QUEBEC.

I personally visited some of the stations in my district this season, and made

such improvements as appeared necessary.

Owing to the great care required in placing the reflectors of range lights in perfect line with each other, the smallest defect is noticed by the pilots of passing boats, and at once reported to me.

To meet the views of this Department in making the navigation of the St. Lawrence as safe as possible, prompt action is taken to rectify all complaints, of whatever nature and kind, as soon as made known.

No. 2 Lake St. Peter Lightship has been thoroughly repaired, and will last for 20 or 30 years.

The two towers on the wharf at Montreal have been repaired, with a view to

their lasting two or three years longer.

From personal inspection, I should think them perfectly serviceable for that length of time, when I believe it is the intention of the Department to put up new iron frames, removable at the end of the season, to be replaced again on the opening of navigation.

From Quebec outwards no important changes in the lights have taken place.

A new Upper Traverse Lightship has been built under contract, by Mr. J. M. Oliver, for \$4,200. She is a first-class vessel, and went to her station on the 16th April, 1878.

The old vessel, after being stripped of all that could be useful, was sold at public

auction to the highest bidder, Mr. D. R. McLeod, for \$610.

A new revolving lighthouse has been erected at Greenly Island, Labrador, Straits of Belleisle, and was put in operation on the 13th August, 1878.

The steam whistle at Cape Ray has been removed and put in operation at

Forteau, on the 8th August, 1878.

The new steam fog-horn at Cape Ray has not proved reliable, and notice to mariners has been issued to that effect.

The fog-gun formerly used at Forteau, has been removed to Greenly Island, and

was put in operation on the 13th August, 1878.

Captain Thomas Connell, an intelligent, zealous and efficient officer, in command of the Manicouagan Lightship, accidentally shot himself upon his return from shooting seals, near his vessel, on the 9th of November last, and has been replaced by Captain Regis Leblanc, who has given every satisfaction since appointed.

Ten range lights at five points on Lake Memphremagog have been erected this season for the advantage of the navigation on that Lake, and will be put in operation

at an early period.

A Committee of Enquiry at Ottawa, I believe, has fully established the great importance of telegraphic communication with Anticosti and the Magdalen Islands, and when connected with the south and portions of the north shores, would prove of eminent service to navigation, and its success is locked forward to by the shipping interest with great anxiety, and this year some advancement towards that end has been made by turther extension of the line by the Montreal Telegraph Company as far as Fox River, County of Gaspé, thereby affording several more reporting Stations from Cape Rosier upwards.

The Fisheries Protection Service coming under my supervision, is the carrying out of orders I may receive from time to time, and the expenditure of the vessel

employed on that duty, &c.

The Fish Breeding Establishments in this District also demand such attention as I may be called to exercise therewith from time to time by the Fisheries Branch of the Department.

Shipwrecked mariners belonging to British registered vessels are at the charge of the British Board of Trade, and are attended to by the Shipping Master. Those of foreign vessels are looked after by their respective countries' Consuls.

The shipping of seamen is conducted by Shipping Master Mr. B. Trudel and Assistant Mr. William Miller.

A large stock of coal, with oil and other necessary articles, are kept at Gaspé Basin, in charge of Mr. Joseph Eden, sub-Agent, to meet any demands in that neighbourhood and the Gulf.

Mr. Fox, Collector of Customs, Magdalen Islands; Mr. Bellefeuille, Harbour-Master, Sorel; and Captain Jones, St. Johns, Province of Quebec, have also willingly complied with any request I have made them, tending to further the interests of navigation and the service generally of this Agency.

The oil furnished by Messrs. Fitzgerald & Co., London, Ontario, has continued

to maintain its reputation for illuminating quality and durability.

The lamps and reflectors obtained from Mr. Chanteloup, of Montreal, are power-

ful, as well as being of the most modern and improved description.

The powder for the signal guns of Canadian manufacture, and now supplied direct from the Hamilton Powder Company has proved of excellent quality, and cost much less than that purchased from the Imperial Government.

The duties this Agency is called upon to perform in connection with the coast lighthouses, fog-whistles, provisions depôts, buoys, beacons, Dominion steamers, shipwrecked mariners, enquiries into the cause of wrecks, river police, Dominion vessel for the protection of the fisheries, fish-breeding establishments, etc., keep myself and staff fully employed summer and winter.

I beg to offer you many thanks for the continued courtesy and confidence exhibited by you and your efficient deputy, the manifestation of which has greatly assisted me in the multifarious duties I am called upon to perform. I am also indebted to the officers under my control for the prompt and willing manner in which they have aided me in carrying out your instructions.

The amount expended by the Agency during the past year for the undermentioned services, were as follows (details of which are given in the Appendix to

this Report):

#### BUOYS.

There are 74 buoys in this district; they are situated between Red Island and Cap Santé, in the Rivers St. Lawrence, Chicoutimi and Saguenay, the Magdalen Islands, Gaspé and Baie des Chaleur.

In the River St. Lawrence they are frequently displaced or injured by passing vessels, necessitating constant supervision, and several trips have been made by one of the Dominion steamers to put them in order when information has reached this Agency relative to their derangement.

In the River St. Lawrence all the black buoys are on the south side of the channel, except those at Beaujeu's Patch and White Island, which can be passed on either side.

The one at Vache's Point, near the Saguenay, is on Vache Patch, and can be passed on either side. The red buoys are all placed on the north side of the channel; white and chequered buoys indicate rocks or ends of shoals, and can be passed on either side, except the white and chequered buoys of the Saguenay, which must be passed to the north.

Green buoys indicate sunken wrecks. One extra chequered buoy has been placed at Gaspé to mark the ballast ground. A black buoy has been placed on the patch lately discovered three-quarters of a mile off Crane Island; it is anchored in three fathoms of water. Crane Island Lighthouse bearing N. by E. 1 E.

A black buoy has also been placed at Berthier; one extra black buoy has also been placed at Magdalen Islands, another at Paspebiac, Baie des Chaleur and Gaspé for the convenience of passenger steamers; also a black buoy at Fox River, to indicate entrance to the harbour; another black buoy has been placed at Cock Point

about five miles below Father Point, to indicate the Point, and has painted on it in white letters the words "Cock Point."

Three extra black buoys have been placed this season at Matane River—two spar buoys to indicate the channel in the river, and one can buoy on the edge of the bank outside the river, in five fathoms of water—Matane Church bearing south, and the lighthouse south-west, and "Matane Buoy" painted in white on the head.

There are also three other buoys at New Richmond Bay, Baie des Chaleur, viz.:

One black buoy to westward of ballast grounds, one red buoy eastward of the

harbour, and one white buoy at the entrance to the harbour.

Eleven new can buoys were sent last spring to Chicoutimi to replace the old barrel buoys. I personally visited these buoys in charge of Mr. Montgomery, and found them all in good order.

The buoys and lights near Chicoutimi are attended to this season by Mr. Wm.

Warren, of Chicoutimi.

#### BEACONS.

This Agency has 54 beacons under its supervision. Those on the River St. Lawrence act as bearings to station buoys, and as marks to vessels leading up and down

Owing to the general unevenness of the coast upon the Island of Anticosti, and also between Cape Chatte and Cape Rosier, the beacons upon these localities are intended to enable vessels to recognize their position. The two on the Labrador shore also distinguishing points on the coast, and mark the entrance to Bonne Esperance and Coacoachoo Bay, both excellent harbours of refuge. The beacon upon Lark Islet has been removed, the lighthouse answering its purpose.

They are reported in good order, and distributed as follows, viz.:—

1 at St. Vallier,

11 at Crane Island,

2 at Goose Island,

1 at Wood Pillar,

1 at St. John's Point,

4 at St. Rochs,

2 at Grand Island, Kamouraska.

2 at Hare Island,

1 at Cacouna,

2 at Green Island.

2 at Red Island,

3 in the Saguenay,

3 at Bic Island.

2 at St. Fabien,

4 at Anticosti, south side,

3 at Anticosti, north side,

2 at Labrador Coast.

5 between Cape Chatte and Cape Rosier,

2 at St. François, Island of Orleans,

1 at Cape Rouge, Montée du Lac.

# WRECKS and Casualties reported by this Agency.

Date Reported.	Rig.	Name.	Casualty.	Locality.
1876.				
lug. 20	Brig	Mary Allan Frank Flamborough	Collision	Off St. Charles River.
"	Bark,	Flamborough	Stranded	Grand Banks.
ctober	Schooner	Flamborough W	do	St. Lawrence Point.
lov. 17	Steamship	Polino	_ do	Lake St. Peter.
	Steamer	North	Strended	River Rlanche
ec. 4	Schooner	Santa Cruz	Collision	Off Bellechasse.
4	Tug	Assametquagan	_ do	St. Charles River.
2	Schooner	Floride	Foundered	Grand Banks
********	<b>a</b> o	000 00mmsom	Comsion	Orana Danas.
1877.				
darch 12	Tug	Voyageur	Stranded	Platon Wharf.
uly 11	Schooner	Voyageur Marie Almida British Lion	do	St. Peter's Point.
Sept. 18	Bark	British Lion	do	Heath Point.
" 10	1 Ctoomor	Samanar	, do	N. W. Reef Bic. Chicoutimi, Saguenay.
" 10	do	Bienvenu	do	Point Pavillion.
" 11	Bark	Marion	do	Traverse.
23	do	Hudson	do	Off Commissioners' Whar
" 24	Ship	Glenhaven	Stranded	Mille Vaches.
" 24	Steamship	Gamma	Collision	Off Queen's Wharf.
" 30	do	R. W. Merriam	Collision	Cap Santé.
" 30	do	Proteus	Stranded	St. Roch's Shoal.
Nov. 1	do	Pride of England	Collision	Point Pavillion. Traverse. Port St. Francis. Off Commissioners' Wharf Mille Vaches. Off Queen's Wharf. St. Thomas. Cap Santé. St. Roch's Shoal. Off Queen's Wharf. Cape of Good Hope. Lower Traverse. St. Lawrence Point. Green Island. Gut of Canso. Cape Traverse, P.E.I. At Sea. East End Green Island. Commissioners' Wharf.
" 3	Bark	Mary Fry.	Stranded	Lower Traverse.
" 8	Brigantine	St. Francis	Collision	St. Lawrence Point.
·' 8	Schooner	Reever	Stranded	Green Island
" 10	Steamship	Hadji	do	Cape Traverse, P.E.I.
" 13	Brigantine	Little Annie	Sprung a leak	At Sea.
14	Ship	Dinsyre	Collision	East End Green Island.
" 14	Barkentine	City of Green Bay Liverpool	do	Brandy Pots.
" 15	Bark	Liverpool	Stranded	S. E. Reef of Bic.
" 16	Schooner	AmericaThistle	Uollision	Quebec Harbour.
. 23	do	Marie Louise	Collision	Point St. Lawrence. Windmill Pt., Montreal. Kamouraska Island. Brandy Pots.
" 23	Steamship	Stephenson	Stranded	Windmill Pt., Montreal.
" 21	Rock	A del heim	do	Rendy Pots
4 26	Steamship	Lake Champlain	do	Cape St. Charles.
" 26 " 27	Rark	Lake Champlain J. Walters Vicksburg Marie Ergelie Hallenside M. & E. Cox	do	.) do Sillery Cove
" 27	Schooner	Marie Ergelie.	Stranded	In the Richelieu.
" 27	. Bark	Hallenside	Collision	. Quebec Harbour.
		M. & E. CoxVanguard		
" 27	. lShip	Advance	Collision	Onebec Harbonr
_ " 30	. Tug	. Anglesea	Stranded	Point Platon.
Dec. 3	Schooner	M Henriette	Collision	Quebec Harbour.
····· 4	do	Four Brothers	Collision	Point Platon. Quebec Harbour. 30 miles S. W. 7 Islands. Harbour, Quebec. Lat. 46.4.N. Long. 46.10 Bic.
16 5	In	N-3:	1	N -4 40 1 N T 40 10

WRECKS and Casualties reported by this Agency.—Continued.

Date Reported.	Rig.	Name.	Casualty.	Locality.
1877.				
Dec. 12	Ship Bark Brigantine Bark do do Schooner Steamship Schooner Bark Schooner Bark Go Steamship	Royal Charter	do Foundered Collision Stranded do Touched ground do do Stranded Collision do Collision do Collision do Collision do Collision do Collision do	Ab't 15 m. below Montreal Hall's Booms. Lat. 41.30 N. Long. 52 O.W Cape Town. Pavillion River. Crawford's Wharf Quebec Martin Bay, Anticosti. S.W. Point, Anticosti. Champlain River. Wharf, Quebec. Brandy Pots. Off Bellechasse. Portnenf Shoal.
1878.				
Feby. 1	Brig Steamship Bark	Lake Megantic	do Pumps choked	Harbour, Quebec. Lampson's Booms, Quebec. Off Bellechasse. Off Rimouski. Point St. Vallière.
*************	dodo	Marion	do	Green Island. Norman Cape, Nfld. White Island Reef. Hellgate, New York.
" 9 " 13	do Steamship	Adriatic Marco Polo Napoleon III	do Collision do	Anticosti. At Sea. At Quebec.
" 27 June 3	dodo	Matador Canada Schelde Commodore	Stranded,	White Island. Indian Cove.
" 6 " 14	dodo	John Abbott	do Fire Collision	Point St. Lawrence. At Sea.

#### LIFE BOATS.

Life-boats or canoes have been stationed at eight different points below Quebec—one being added to the list this season, and stationed at Rimouski. These canoes are built upon the same principle as those employed by ferrymen in crossing at Quebec when the river is full of ice.

They are sheathed with iron for protection against the ice, and provided with

twelve paddles. They should carry about thirty men each.

In the event of disasters similar to those of November, 1871, when several valuable ships were cut and sunk by the ice, the crews frostbitten and very nearly lost, these life canoes could reach them when no row boat could make its way through the ice. They are so stationed as to be able to concentrate at any point, and are in charge of competent keepers, distributed thus:

L'Islet, in charge of	of Mr. J. B.	Dussault.
St. Jean, Port Joli,	in charge o	of D. Babin.
Riviére Ouelle	do	A. Casgrain.
Crane Island	do	A. Marois.
Murray Bay	do	J. Tremblay.
Kamouraska	do	R. LeBlanc.
Ste. Anne	do	P. Lafrance.
Trois Pistoles	do	D. Damour.
Rimouski	do	R. Chamard.

The district under the supervision of this Agency commences at the Straits of Belle Isle, Newfoundland, and takes in the North Shore of Newfoundland, Labrador, Anticosti Island, Magdalen Islands, Baie des Chaleurs, Gaspé Coast, both sides of the River St. Lawrence, to Quebec and Montreal, as well as the lighthouses at the outlet of Lake Champlain, the Richelieu River, between St. John and the Boundary Line. A description of the lights in this district is given in the "List of Lights on the Coasts, Rivers and Lakes in the Dominion of Canada," Supplement No. 1 to the Annual Report for the current fiscal year, and, taken with the other matters connected with this section, comprises

137 Fixed and revolving lights,

8 Light-ships,

7 Steam fog-whistles,

8 Fog-guns,

77 Buoys, 54 Beacons,

8 Provision depôts.

I would respectfully recommend that all persons hereafter appointed keepers of revolving lights, be obliged, as a condition of their appointment, to come to this Agency several days before taking charge, so that they may be properly instructed in the nature of their functions, and the means to be taken to remedy any ordinary defects.

By the adoption of this course, simple pieces of machinery that may become temporarily out of order can be rectified without the expense consequent upon having to send a mechanic specially for the purpose.

Total expenditure for fiscal year, ending 30th June, 1878:—

Maintenance of lights below Quebec	\$95,464	60
" " above "	15,996	09
Construction of lights below Quebec	9,261	47
River police	23,498	06
Steamers		
" Lady Head"	18,567	11
Fish-breeding	699	<b>43</b>

\$208,429 37

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

J. U. GREGORY, Agent of the Department of Marine and Fisheries at Quebec.

#### SPECIAL REPORT.

QUEBEC, 19th August, 1878.

SIR,—According to your orders I left Quebec on 3rd, July, on board the Dominion steamship "Napoleon III," with lighthouse supplies and provisions for the stations in the Gulf of St. Lawrence. I have inspected the lights, buildings, provision depôts, engines and boilers of the steam fog-whistles, and revolving gear of the lights; tested them and put all in first-class order.

I have taken the steam fog, whistle from Cape Ray, Newfoundland, over to Forteau Lighthouse, Straits of Belle Isle, and put it in operation there; also changed the fog-gun from Forteau to Greenly Island, Straits of Belle Isle, and put it in

operation there.

The new revolving light on Greenly Island has also been put in operation and is in good working order.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,
Inspecting Engineer.

J. U. GREGORY Esq.,
Agent Department Marine and Fisheries, Quebec.

Statement shewing the present condition of Lighthouses, Provision Depôts, Fog-gun Stations, Buoys, Beacons and Steam Fog-Signals in the Gulf and River St. Lawrence from Belle Isle to Montreal Harbour, including the Islands of Anticosti and Magdalen, Baie des Chaleurs and River Richelieu, at the outlet of Lake Champlain.

Visit of the steamship "Napoleon III" with Light-house and other supplies for Stations below Quebec. Left Quebec May 28th, 1878, at 3 p.m., in place of "Druid"

otherwise employed.

BELLE ISLE LIGHTHOUSE, NEWFOUNDLAND, STRAITS OF BELLE ISLE, PROVISION DEPÔT AND FOG-GUN STATION.

Lat. 51° 53' 0'' N.; Long. 55° 22' 15" W.

# (MARTIN COLTIN, Keeper.)

A first order dioptric fixed white light, five mammoth flat-wick burner lamps, lipped chimneys. Iron lantern. Size of glass, 24 x 28\frac{1}{4}, 23\frac{1}{2} x 28\frac{1}{4}, 27 x 28\frac{1}{4} x \frac{3}{4} \text{inch thick; size of lantern, 12 feet; size of gallery, 20 feet; size of base, 20 feet; height of tower, base to centre of lamp, 56 feet: consumes about 220 gallons of oil per season.

August 12th.—Arrived and landed stores; inspected the lights, fog-gun and provision depôt; found all in good order, with full supplies on hand; the fog-gun

will require a new vent this fall.

The lighthouse and dwelling have been painted this spring, and the lantern

repaired and put in good order.

The fog-gun is fired every hour during fogs and snow storms, and consumes about 2,000 lbs. of powder per season, together with a proportionate number of friction tubes and cartridges. A horse is furnished the keeper to draw supplies, water and fuel.

Description of Lighthouse and Number of Buildings at this Station.

The lighthouse is a circular stone building, clapboarded, and painted white, with a red roof. In connection with it there are also ten other buildings, comprising:—

One powder magazine, built of fire brick;

One oil shed, built of wood and painted white, with a red roof;

One fog-gun house, built of wood and painted white;

One stable, built of wood and painted white;

Two small store sheds, built of wood and painted white.

One dwelling-house, built of fire brick;

One store shed, built of wood and painted white, and situated at the landing stage; One house of refuge for shipwrecked mariners, built of wood and painted white,

and situated half-way between the landing stage and the lighthouse;

One provision depôt also for the use of shipwrecked mariners, built of wood and painted white, and is supplied with 15 barrels of flour, seven barrels of pork, five barrels of peas, sugar and tea, 12 each of pea jackets, pants, drawers, socks, caps, comforters, flannel shirts, inittens, boots, six pair of snow shoes and moccasins, 12 blankets and two cases of preserved meats. These are renewed as occasion requires. The keeper is furnished with a horse to draw fuel, water and supplies. The provisions were inspected and a renewal of the provisions found to be necessary, which will be done this fall.

# REPORT OF ICE IN THE STRAITS OF BELLE ISLE, I877-1878.

November 5th, 1877.—Steamship "Peruvian" outward at 4 p.m.

November 11th.—Steamship "Manitoban" inward at noon; last steamer seen this fall.

December 29th.—A small quantity of ice drove out from north east to westward of the Island.

December 31st.—A good deal of ice in the Straits to the westward of the Island; very little to east.

January 7th, 1878.—Fresh breeze from the west during the past week, driving all the ice out to sea.

January 15th.—Straits covered with slab ice.

January 20th.—Slab ice driving out.

January 25th.—Slab ice scattered in the Straits, but very thin.

January 28th—Large sheets of frozen slab ice in the Straits.

January 31st.—Very little ice in the Straits.

February 5th.—A good deal of ice driven out from north-east; heaviest ice that has been in the Straits this winter to date; also 11 icebergs.

February 10th.—All the heavy ice and icebergs driven out to sea by the late

west wind.

February 18th.—Very little ice in the Straits.

February 19th and 20th.—Strong breeze from north; a good deal of ice drove out.

February 27th.—Very little ice in the Straits; all the heavy ice driven out to sea.

March 2nd.—Thermometer 15 below zero; Straits covered with slab ice.

March 7th.—Clear water from here to south shore; some ice to west, mostly slab ice; a good deal of open water amongst it; about 13 miles to east there appears to be heavy ice from east to S.S.E., but to south, as far as can be seen, is open water.

March 11th and 12th.—Strong gales from N.N.W.; a good deal of ice drove out; more ice in the Straits than has been at any time this winter; greatly broken up by

heavy swell through it, from late gale.

March 14th.—Straits covered with heavy and slab ice; no clear water to be seen; up to this date there was no ice in the Straits that would impede a steamer constructed for winter navigation to pass through the Straits.

March 19th.—No clear water to be seen; a great quantity of ice in the Straits. March 26th.—Clear water from Cape Norman to about seven miles east of Cape

March 28th.—Six steamers in sight to south east, seal hunting.

March 30.—A large quantity of ice to east and south east; nine steamers

amongst it, making very little way through.

March 31st to April 7th.—Strong gale of E.N.E. wind; all the ice drove up the Straits; very heavy sea from east; all the ice batture around the Island washed

April 15th.—Some ice out between here and north shore; heavy sea amongst it.

April 18th.—Steamship "Lion" and "Walrus" in the Straits seal hunting.

April 19th.—Steamers "Falcon," "Arctic," "Ranger" and "Commodore," second trip. Captain Jackman reports eleven of the steamers jammed in the ice to the south since the 31st March; also that the steamer "Micmac," late "City of Halifax," formerly of the Inman Line, had been stove in by the ice and lost; amount of seals on board, 1,100. Captain Jackman has turnished me with the following amount of scals taken to date:

Steamers:—"Falcon," 21,900; "Walrus," 6,700; "Bear," 14,000; "Iceland," 13,000; "Eagle," 15,000; "Ranger," 12,000; "Commodore," 12,000; "\*Kite," 8,000; "\*Neptune," 7,500; "\*Merlin," 5,000; "\*Woolf," 16,000; "\*Vanguard," 1,000; "\*Mastiff," 8,000; "\*Proteus," 1,900.

Dundee steamers:—"Arctic," 33,000; "\*Nanwhan," 800; "\*Esquimault," 1,900. Sailing vessels:—"Mr. Donnely," 2,200; "Ariel," 2,500; "Peerless," 2,400; "Rosina," 2,000; "Gem," 1,700; and steamers "Leopard" and "Tiger" from the Gulf with full loads; and it is reported that 100,000 seals have been landed by the inhabitants of Green Bay.

April 19th to 21st.—Very little ice in the Straits, a good deal to east; several steamers and two sailing vessels in the Straits; steamship "Proteus" and "Mastiff," 2nd trip. Captains landed to get information of the ice and seals; those two steamers were blocked for three weeks, in company with the steamers marked thus \* in the Report. Captain Wilcox reports the loss of the "Micmac," and a great many sailing vessels, in the gale which occurred during the first week of the present month; ice scattered through the Straits.

May 16th.—A good deal of ice to east, outer edge of ice, about 16 miles to east;

very little ice to west.

May 19th.—Steamship "Proteus" bound south; scattered ice to east.

May 21st.—Straits clear of ice; 56 icebergs; one French brig going into Quirpon.

May 24th.—One brig and one schooner to south.

June 21st.—One Newfoundland steamship bound west.

June 7th, 1.30 p m.—Heard a gun and whistle; strong breeze, rain, thick fog; answered by firing two guns in succession; received answer, three blasts of whistle and gun; supposed to be mail steamer inwards.

June 8th. 4 p.m.—One bark outwards; 6 p.m., one barkentine-rigged stoamer,

black funnel, with white belt, inward bound.

MICHAEL COLTON, (Signed) Belle Isle Lighthouse.

### CAPE NORMAN LIGHTHOUSE, STRAITS OF BELLE IS .- E.

Lat. 51° 38' 0" N.; Long. 55° 53' 40" W.

### (HENRY LOCKE, Keeper.)

A white revolving catoptric flash light every two minutes; six No. 1 circularwick lamps. Iron lantern. Size of reflectors,  $20 \times 12$  inches deep; size of glass  $60 \times 28\frac{1}{2} \times \frac{1}{2}$ -inch; size of lantern, 9 feet; size of gallery, 17 feet; size of base, 17 feet; height of tower, base to vane, 40 feet; height of tower, base to centre of lamp, 36 feet: consumes about 450 gallons of oil per season.

August 12th.—Arrived and landed stores, &c. Inspected lights, revolving gear,

&c., and found all in good order,

Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a hexagonal wooden building, painted white, and with a red roof.

There are also four other buildings, comprising one dwelling-house, built of wood and painted white, with a red roof;

One store shed, built of wood and painted white, with a red roof;

One oil shed, built of wood, and painted red;

One store shed, built of wood, and painted red, situated at the landing, about one-half mile from the lighthouse.

FORTEAU LIGHTHOUSE, AND STEAM FOG-WHISTLE STATION, AMOUR POINT, LABRADOR.

Lat. 51° 27' 35" N.; Long. 56° 50' 55" W.

# (P. Godier, Keeper.)

A fixed white dioptric light, second order; five mammonth flat-wick lamps, lipped chimneys. Iron lantern. Size of glass,  $32\frac{1}{4} \times 35$ ,  $32\frac{1}{4} \times 31\frac{1}{2}$ ,  $32\frac{1}{4} \times 27\frac{3}{4} \times 3\frac{1}{2}$ ,  $32\frac{1}{4} \times 27\frac{3}{4} \times 3\frac{1}{2}$ ,  $32\frac{1}{4} \times 27\frac{3}{4} \times 3\frac{1}{2}$ ,  $32\frac{1}{4} \times 3\frac{1}{2}$ ,  $32\frac{1}{4} \times 27\frac{3}{4} \times 3\frac{1}{2}$ ,  $32\frac{1}{4} 

The fog gun is fired every hour during fog and snow-storms, and consumes about 1,500 pounds of powder every season, with a proportionate quantity of cartridges and friction tubes. The keeper is furnished with a horse, for the purpose of drawing

water, fuel, &c.

August 3rd.—Arrived, landed stores, inspected lights, etc.; found all in good order; landed engines, boiler and fog-whistle; had them taken up to the new engine-house and placed in proper position; left two men to put them together until my return from Belle Isle, when I would put them in operation, and take the fog-gun over to Greenly Island, and put it in operation at that Station. According to orders told the keeper to have the gun fired every half-hour instead of every hour.

August 8th.—Got fog-whistle put up and in proper working order and in operation; at 2.15 p.m., weather thick; this whistle gives 10 seconds blast and 50 seconds silent every minute, and will be blown during fogs and snow-storms from this date. The fog-whistle house at this Station is not completed, owing to a good deal of time being lost on account of bad weather; landing material; left carpenters till the fall trip to have the work finished. At 3 p.m., took fog-gun on board for Greenly Island.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a circular stone building, clapboarded, and painted white, and with a red roof. In connection, there are also seven other buildings, consisting of

One dwelling house, built of fire-brick, with a red roof; One fog-gun house, built of wood and painted white;

One powder magazine, built of fire-brick, with a zinc roof;

One oil shed, built of wood and painted white; One stable, built of wood and painted white; Two store-sheds, built of wood and painted white. A horse is furnished the keeper, to draw supplies, fuel, &c.

#### SPECIAL REPORT.

QUEBEC, 19th August, 1878.

SIR,-According to orders received from you, I have put the following into

operation.

August 8th.—At Forteau Lighthouse, Straits of Belle Isle, put steam fog-whistle into operation at 2.15 p.m.; thick fog. This whistle is blown in thick and foggy weather and snowstorms, 10 seconds blast in each minute, leaving an interval of 50 seconds in each minute.

August 9th.—At Greenly Island Lighthouse, Straits of Belle Isle, a revolving white, red and white light; this light will be seen in clear weather at 20 miles; a

very strong light.

August 13th.—At this Station the fog-gun was put into operation, and is to be fired every half-hour during fogs and snow storms.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,
Inspecting Engineer.

J. U. GREGORY, Esq., Agent Department Marine and Fisheries, Quebec.

### GREENLY ISLAND LIGHTHOUSE AND FOG-GUN STATION.

Lat. 51° 22' 35" N. Long. 57° 10' 50" W.

(Louis Couilland de Beaumont, Keeper.)

The light is elevated 100 feet above high-water-mark, and, in clear weather,

should be seen fifteen miles from all points of approach.

N.B.—A gun is ordered to be fired at this Station every half hour during fogs

and snow storms throughout the season of navigation.

August 9th.—Arrived and landed the keeper and his family, also fog-gun, and put the light in operation. I had a great deal of trouble in getting the gear into good working order, owing to its having been badly put up and much bruised. The contractors and men were there at work, and will not be finished until the fall, if even then; the carpenters and masons work is well done as far as they have gone. The iron lantern is strong but very badly put up; it is a great mistake to have joiners and carpenters to put up such lanterns, they have not tools for the work, and are not accustomed to iron work. The manufacturer should send a proper mechanic, which would be more satisfactory.

### Description of Buildings at this Station.

The building is of wood, painted fawn color, and consists of an octagonal tower, with keeper's dwelling attached, also:—

One store house, at landing, built of wood, whitewashed;

One store house and oil store, and stable combined, built of wood, stone colour;

One gun-house, built of wood, whitewashed;

One powder magazine, built of wood, covered with zinc.

August 13th.—Left at 6 p.m.; at 7.30 p.m., light showing well; at 8.15 p.m., distance by patent log 22 miles, lost sight of it.

#### POINT RICH LIGHTHOUSE, NEWFOUNDLAND.

Lat. 50° 41' 50" N.; Long. 57° 27' 40" W.

### (E. Roy, Keeper.)

A white catoptric revolving flash light every fifteen seconds; twelve No. 1 circular-wick lamps. Iron lamp. Size of reflectors,  $20 \times 12$  inches deep; size of glass,  $60 \times 28 \times \frac{1}{2}$  inches; size of lantern, 9 feet; size of gallery, 17 feet; size of base, 17 feet; height of tower, base to vane, 40 feet; height of tower, base to centre of lamp, 36 feet: consumes about 900 gallons of oil per season.

August 2nd.—Landed stores, inspected lights, revolving gear and fog-horn, and found all in good order, except a wheel of revolving gear broken, also one on fog-

horn; put two new ones in and brought away old ones for patterns.

## Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a hexagonal wooden building, and painted white, with a red roof. In connection with it there are also four other buildings, consisting of:—

One dwelling-house, built of wood, painted white, with a red roof;

One oil shed, built of wood, painted white, with a red roof;

One stable, built of wood, and painted white;

One store shed at landing stage, built of wood and painted red.

#### CAPE RAY LIGHTHOUSE AND STEAM FOG WHISTLE, NEWFOUNDLAND.

Lat. 47° 37' 0" N ; Long. 59° '18' 0" W.

#### (R. Rennie, Keeper.)

A revolving flash catoptric white light, which flashes every ten seconds; twelve No. 1 circular-wick lamps. Iron Lantern. Size of reflectors,  $20 \times 12$  inches deep; size of glass,  $10 \times 28 \times \frac{1}{2}$  inches; size of lantern, 9 feet; size of gallery, 17 feet; size of base, 17 feet; height of tower from base to vane, 41 feet; height of tower to centre of lamp, 36 feet: consumes about 900 gallons of oil per season.

July 31st.—Landed stores, inspected lights, revolving gear and fog-horn; found all in good order. The fog-horn has not worked well for some time; at first when it was put up it sounded well, but at present it cannot be heard except at a short distance. The principle is not good, and I would recommend that a new one of a larger size be put there as soon as possible, of an approved description; took on board the engines and boiler of the old fog-whistle for Forteau.

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Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a hexagonal wooden building, painted white, with a red roof. In connection with it there are six other buildings, comprising :-

One dwelling-house, built of wood, painted white, with a red roof;

One oil shed, built of wood, painted white, with a red roof;

One stable, built of wood, painted white, with a red roof;

One store shed, at the landing, built of wood, painted white, with a red roof; One building of wood, painted white, with a red roof, containing the fog-whistle. engine and boiler, with coal shed attached;

One new building, containing new fog horn.

BIRD ROCKS LIGHTHOUSE, PROVISION DEPÔT AND FOG-GUN STATION, MAGDALEN ISLANDS.

Lat. 47° 50' 49" N,; Long. 61° 8' 20" W.

# (PETER WHALEN, Keeper.)

Fixed white fourth order dioptric light; one mammotheircular-wick lamp. Iron lantern. Size of glass,  $32\frac{1}{2} \times 27\frac{1}{2}$ ,  $32\frac{1}{2} \times 31\frac{1}{4}$ ,  $32\frac{1}{2} \times 17\frac{1}{2} \times \frac{3}{8}$  inches; size of lantern, 10 feet; size of gallery, 18 feet; size of base, 20 feet; height of tower from base to vane, 50 feet; height of tower base to centre of lamp, 44 feet: consumes about 180 gallons of oil per séason. The fog-gun is fired every hour during fogs and snow storms, expending about 2,000 lbs. of powder, and a proportionate number of cartridges and friction-tubes during the season.

July 7th.—Landed one boat load; surf too heavy; had to wait until 10th July at 8 a.m., when we landed stores, &c; inspected provision depôt, lights and fog-gun; found vent of gun too large; put new one in; depot had full supplies; there is no clothing at this Station; on examining the rock on the east side, found a large piece had fallen down and broken the lower ladder; the top part also is not safe; will require to send down two men next spring, and have a new landing blasted for getting up.

The keeper has painted and repaired the light, and put it in good order; he has also built a new storehouse and forge and done them well. We were about 15

hours with eight men at the crane, taking up the stores and fuel.

I would recommend that a donkey engine, the same as we have on the wharf for taking coals out of ships, be put on the Bird Bocks; it would be a great saving of time and labour, and two barrels of water could be on hand for the boiler when the steamer arrives. With such an engine on the rock, it might be a saving of four or five days' time to the steamer.

A new gun-house will be required next spring.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a hexagonal wooden building, painted white, with a red roof. In connection with it there are six other buildings, consisting of:-

One dwelling-house, built of wood, painted white, with a red roof;

One oil-shed, built of wood, painted white, with a red roof; One gun house, built of wood, painted white, with a red roof;

One powder magazine, built of fire-brick, with a zinc roof; One store shed, situated at the landing, built of wood, painted white, with a red roof;

One store shed.

There are also two cranes, one at each landing.

#### ETANG DU NORD LIGHTHOUSE AND STEAM FOG-WHISTLE, MAGDALEN LISLANDS.

Lat. 47° 23' 20" N; Long. 61° 57' 0" W.

# (TIMOTHY O'BRIEN, Keeper.)

A revolving white catoptric light; six No. 1 circular-wick lamps. Wooden lantern. Size of reflectors, 20 by 12 inches deep; size of glass, 60 by 29 by \$\frac{3}{2}\$ inches; size of lantern, 9 feet 3 inches; size of galiery, 15 feet 6 inches; size of base, 19 feet; height of tower, base to vane, 28 feet; height of tower, base to centre of lamp, 24 feet:

consumes about 500 gallons of oil per season.

July 11th.—Arrived at Cape Mull; landed stores &c.; went over to lighthouse, inspected lights, engine, and boiler of steam whistle; found all in good order. The lighthouse and dwelling had been painted this spring, and were in good order. On examination I found the shingles on the dwelling will require to be renewed, as the old ones are very bad; left shingles and made arrangements to have repairs done. The keeper was obliged to get men and have the dam cleaned as it was filled with mud and sand, and the feed pipes to the cistern were choked; he also was obliged to get a mason to take part of the foundation down to reach the pipes; all is now in good order.

# Description of Lighthouse and number of Buildings at this Station.

The lighthouse and dwelling-house combined is a square wooden building, painted white, with a red roof. In connection with with it, there are also two other buildings, comprising:—

One oil shed, built of wood and painted red;

The fog-whistle house, with coal shed attached, built of wood and painted red.

#### AMHERST ISLAND LIGHTHOUSE, MAGDALEN ISLANDS.

Lat. 47° 13' 0" N; Long. 61° 53' 0" W.

### (WILLIAM CORMIER, Keeper.)

A revolving catoptric light, alternately red and white every thirty seconds; four No. 1 circular-wick lamps. Iron lamp. Size of reflectors, 20 by 12 inches deep; size of glass, 60 by 28½ by 3-inches; size of ruby glass, 21 by 20½ inches; size of lantern, 9 feet; size of gallery, 14 feet 6 inches; size of base, 17 feet 6 inches; height of tower, base to vane, 54 feet; height of tower, base to centre of lamp, 47 feet: consumes about 400 gallons of oil per season.

July 12th.—Landed stores, also seven spare buoys, at Pleasant Bay, for Amherst Harbour. Drove over to lighthouse, inspected lights, revolving gear &c.; found two lamps and reflectors in very bad order; the keeper said they took fire and burned the reflectors; will require two new reflectors this fall. The lighthouse and dwelling will require two coats of paint next spring. Oil and paint will go down this fall, as arrangements were made to give the buildings two coats, and put in good order for \$25.

# Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a hexagonal building, built of wood and painted white, with a red roof. In connecton with it there are also two other buildings, comprising:—

One dwelling-house, built of wood, painted white, with a red roof;

One oil shed, built of wood and painted red.

#### ENTRY ISLAND LIGHTHOUSE, MAGDALEN ISLANDS.

Lat. 47° 16' 30" N; Long, 61° 41' 0' W.

(J. Cassidy, Keeper.)

A fixed red catoptric light, six lamps, comprising four No. 1 circular and two mammoth flat-wick lamps. Iron lantern. Size of reflectors,  $21\frac{1}{2}$  by 14 inches deep; size of glass, 36 by 28 by  $\frac{2}{3}$ -inches; size of ruby glass, 21 by  $20\frac{1}{2}$  inches; size of lantern, 7 feet 6 inches; size of gallery, 14 feet 6 inches; size of base, 20 feet; height of tower, base to vane, 28 feet; height of tower, base to centre of lamp, 24 feet: consumes about 500 gallons of oil per season.

July 12th.—Landed stores, inspected the lights &c.; found all in good order; the new chimney built last fall is a great improvement, as the house does not now

 $\mathbf{smoke}$ .

Description of Lighthouse and number of Buildings at this Station.

The lighthouse and dwelling-house combined is a square wooden building, painted white, with a red roof, and there is also one oil shed, built of wood and painted red.

In the report for the fiscal year ended on the 30th of June, 1876, it was stated that the Government had not acquired the land at this Station, nor has the acquisition been yet made.

HEATH POINT LIGHTHOUSE AND PROVISION DEPÔT, EAST POINT OF ANTICOSTI.

Lat. 49° 5' 20" N; Long. 61° 42' 30" W.

(THOMAS GAGNÉ, Keeper.)

A fixed white catoptric light; seventeen No. 1 flat-wick lamps; a gun metal lantern. Size of reflectors, 21 x 8½ inches deep; size of glass, 23 x 27½ x ¾-inches; size of lantern, 13 feet; size of gallery, 26 feet; size of base, 35 feet; height of tower, base to vane, 90 feet; height of tower, base to centre of lamp, 84 feet: consumes about 400 gallons of oil per season.

The depôt is provisioned with the same amount of supplies as that at Belle Isle

Station. A horse is furnished the keeper to draw supplies, fuel, water, &c.

July 7.—Landed stores &c., inspected the lights, provision depôt &c.; found all in good order; full supplies on hand; no provisions or clothing had been delivered since my visit on 23rd September, 1877. As the small boat was damaged last fall, the keeper had it repaired at a cost of \$35.

Description of Lighthouse and number of Buildings attached to this Station.

The lighthouse and dwelling-house combined is a circular stone building, faced and clapboarded, painted white, with a red roof. There are six buildings in connection with it, viz:—

One house of refuge for shipwrecked mariners, built of wood, and painted white

One provision depôt, built of wood, and painted white;

One stable, built of wood, and painted white; One oil shed, built of wood, and painted white; One store shed, built of wood, and painted white;

One store shed, situated at the landing, about a half-a-mile from the lighthouse, built of wood, and painted white.

SOUTH POINT LIGHTHOUSE AND PROVISION DEPÔT, ISLAND OF ANTICOSTI, BAGOT'S BLUFF.

Lat. 49° 4' 0" N; Long. 62° 15' 10" W.

# (DAVID TETU, Keeper.)

A flash catoptric light every 20 seconds: twelve No. 1 circular lamps. Iron lantern. Size of reflectors  $20 \times 12$  inches deep; size of glass,  $60 \times 28\frac{1}{2} \times \frac{2}{3}$ -inches; size of lantern, 9 feet; size of gallery, 15 feet; size of base, 16 feet; height of tower, base to vane, 54 feet; height of tower, base to centre of lamp, 48 feet: consumes about 950 gallons of oil per season.

The fog-whistle is blown, during fogs and snow-storms, ten seconds in each minute. Owing to the proximity of wood the keeper is enabled to supply a large

portion of the required fuel.

A house has been furnished him by the Department, and a reasonable amount per cord is allowed for the wood. The supplies furnished in the provision depôt are similar to those furnished to Belle Isle.

July 6th.—Landed stores, inspected lights, engines and boiler of steam fog-

whistle, revolving gear, and provision depôt; found all in good order.

The keeper had given to the Islanders some provisions, as they were in a state of starvation during the winter. The dwelling and other buildings required painting; the keeper will have it done when oil and paint are provided. The wharf foundation was cleared and ready for the lumber last fall; there has been nothing done and it has all filled in again from the washing of the sea. The lumber is not there yet.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a hexagonal wooden building, painted white, with a red roof-Five other buildings are attached, viz:—

One dwelling-house, built of wood, painted white and with a red roof;

One provision depôt, built of wood, painted white, with a red roof;

One stable, built of wood, painted white, with a red roof;

One fog-alarm house, built of wood, painted white, with a red roof;

One small house, for the use of the assistant keeper, built of wood, and painted white.

ELLIS BAY, ANTICOSTI, PROVISION DEPÔT.

(Captain ROBERT LETTIE, Keeper.)

July 5th.—Arrived at 7 a.m., inspected the depôt and found all in good order, with full supplies on hand.

SOUTH-WEST POINT LIGHTHOUSE AND PROVISION DEPÔT, ISLAND OF ANTICOSTI.

Lat. 49° 23' 45" N.; Long. 63° 35' 46" W.

(E. POPE, J.P., Keeper.)

A revolving white catoptric light, showing a flash every minute; twenty-one flat-wick lamps and a gun metal lantern; size of reflector,  $21 \times 8\frac{1}{2}$  inches deep; size of glass,  $27\frac{1}{2} \times 29\frac{1}{2} \times \frac{3}{2}$ -inches; size of lantern, 13 feet; size of gallery, 26 feet; size of base, 40 feet; height of tower, from base to vane, 75 feet; height of tower base to centre of lamp, 70 feet: consumes about 900 gallons of oil per season. The depôt is provisioned with the same amount of supplies as at Belle Isle. A horse is furnished to the keeper to draw water, fuel and other necessary supplies.

July 6th.—Landed stores, &c., inspected the light, revolving gear, provision depôt, &c., and found all in good order, with full supplies on hand.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a circular stone building, faced and elapboarded, painted white with a red roof, and with a dwelling-house adjoining.

There are seven other buildings attached, consisting of:

One house of refuge for shipwrecked mariners, built of wood, painted white, with a red roof;

One provision depôt, built of wood, painted white, with a red roof

One stable and barn combined, built of wood, painted white, with a red roof;

One workshop, built of wood, painted white, with a red roof;

One oil-shed, built of stone, and with a zinc roof;

Two small buildings, built of wood, and painted white, with a red roof.

WEST POINT LIGHTHOUSE, FOG-GUN STATION AND PROVISION DEPÔT, ISLAND OF ANTICOSTI.

Lat. 499 52' 30' N.; Long. 649 31' 40" W.

# (ALFRED MALOUIN, Keeper.)

A fixed white dioptric light; five mammoth flat-wick lamps, lipped chimneys. Iron lantern. Size of glass,  $32\frac{1}{4} \times 35$ ,  $32\frac{1}{4} \times 31\frac{1}{2}$ ,  $32\frac{1}{4} \times 27\frac{3}{4} \times \frac{3}{8}$ -inches; lantern, 10 feet 3 inches; size of gallery, 20 feet; size of base, 25 feet 6 inches; height of tower from base to vane, 109 feet; height of tower base to centre of lamp, 98 feet: consumes about 220 gallons of oil per season.

July 5th.—Arrived at 4 p.m.; landed stores, inspected lights, fog-gun and pro-

vision depôt, and found all in good order.

The following clothing and provisions had been delivered to the crew of the bark "Northumbria," wrecked 28th November last, on Anticosti: 12 pea jackets, 16 pairs pants, 12 comforters, 13 pairs boots, 11 fur caps, 18 pairs drawers, 18 shirts, 20 pairs socks, 5 blankets, 11 pairs mitts, 3 barrels flour, 110 lbs. pork, half-barrel peas, 2 lbs. tea, 15 lbs sugar, 12 tins preserved starts.

The fog-gun is fired every hour during fogs and snow-storms, and consumes 1,200 pounds of powder per season, with a proportionate number of cartridges and friction-tubes. A quantity of provisions and supplies similar to that of Belle Isle is kept here. A horse is furnished to the keeper to draw water, fuel and other supplies.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a circular stone building, clapboarded, painted white, with a red roof. There is a dwelling-house attached, built of white brick, with a red roof. Five other buildings are also connected, viz:—

One provision depôt for shipwrecked mariners, built of wood, and painted white;

One powder magazine, built of white brick, with a zinc roof;

One gun-house, built of wood, painted white, with a red roof;

One stable and barn, built of wood, and painted white;

#### CARLETON POINT LIGHTHOUSE, BAIR DES CHALEURS.

Lat. 4 8° 5' 15" N.; Long. 67° 7' 0" W.

### (E. LANDRY, Keeper.)

A fixed red catoptric light; three mammoth flat-wick lamps, lipped chimneys. Wooden lantern. Size of reflectors, 18 x 6 inches deep; size of glass, 36 x 30½; size of lantern, 7 feet; size of gallery, 12 feet; size of base, 15 feet; height of tower, from base to vane, 28 feet; height of tower base to centre of lamp, 24 feet: consumes about 180 gallons of oil per season.

July 20th.—Landed stores and inspected lights, &c.; found all in good order; the lighthouse will require painting this summer; left paint and oil, and told keeper to

give it two good coats of paint, and he would be allowed \$10 for the work.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse and dwelling-house is a combined square wooden building, painted white, with a red roof. In connection therewith is

One oil store, built of wood, and painted red.

### PASPEBIAC LIGHTHOUSE, BAIE DES CHALEURS.

Lat. 48° 0' 50" N.; Long. 65° 14' 20" W.

(L. STRONG, Keeper.)

A white fixed catoptric light; two No. 1 circular-wick lamps; and a No. 1 flat wick dual. Iron lautern. Size of reflectors,  $15 \times 51$  inches deep; size of glass,  $21 \times 171$  inches,  $21 \times 121$  inches; size of lantern, 4 feet 6 inches; size of gallery, 14 feet; size of base, 20 feet; height of tower, base to vane, 54 feet; height of tower base, to centre of lamp, 50 feet: consumes about 120 gallons of oil per season.

July 20th.—Landed stores, inspected lights &c. The lighthouse requires painting; left paint and oil with keeper. I examined the foundation as you desired; and about building a breakwater, my opinion is that the best thing to do is to remove the

tower about 80 yards further back.

Three years ago the water was about 180 feet from the tower at high-water mark, now it is up to it. I think the work could be done by Messrs. Robins' carpenters; they have plenty of men, good skeads and ships' screws. I called to see their agent but he was away on the north-shore and therefore did not see him. This tower would want a new lantern as the present one is too small. I do not think it would be any use going to expense of building a breakwater around the lighthouse where it is at present, as the point is washing away very fast.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse and dwelling-house combined is a square wooden building, painted white, with a red roof. In connection with it there is:—

One oil-shed, built of wood, and painted red.

#### POINT MAQUEREAU LIGHTHOUSE, BAIE DES CHALEURS.

Lat. 48° 12' 30" N.; Long. 64° 46' 12" W.

# (A. BROTHERTON, Keeper.)

A revolving catoptric light, every minute, showing red and white alternately; four No. 1 circular-wick lamps. Iron lantern. Size of reflectors, 20 x 12 inches deep; size of glass, 36 x 28 x 3-inches; size of ruby glass, 20½ x 21 inches; size of lantern, 7 feet 6 inches; size of gallery, 14 feet 6 inches; size of base, ———; height of tower, base to vane, 27 feet; height of tower base to centre of lamp, 24 feet: consumes about 250 gallons of oil per season.

July 20th.—Landed stores, inspected the light, revolving gear &c.; found all in

good order.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted white, with a red roof. In addition to it, there is also—

One oil-shed, built of wood, and painted red.

### CAPE DESPAIR LIGHTHOUSE, BAIE DES CHALEURS.

Lat. 48° 25' 40" N.; Long. 64° 18' 20" W.

### (J. Beck, Keeper.)

A white revolving catoptric light, showing a flash at intervals of half a minute; lantern nine feet in diameter; six No. 1 circular-wick lamps. Iron lantern. Size of reflectors,  $20 \times 12$  inches deep; size of glass,  $60 \times 30 \times \frac{1}{2}$ -inches; size of lantern, 10 feet; size of gallery, 15 feet 6 inches; size of base, 18 feet 6 inches; height of tower, base to vane, 42 feet; height of tower, base to centre of lamp, 36 feet: consumes about 500 gallons of oil per season.

July 24th.—Landed stores, inspected lights, revolving gear, &c.; found all in

good order.

The keeper had built a new addition to his kitchen 18 feet 6 inches x 11 feet; height of post, 10 feet, shingled all over, and was well done.

# Description of Lighthouse and number of Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted white, with a red roof. In connection with it there is:—

One oil-shed, built of wood and painted red.

The necessary land at this Station has been acquired by the Department at the cost of \$300, and fenced in. The deed is in the hands of the Department at Ottawa.

### WHITEHEAD CAPE LIGHTHOUSE, PERCE ROADSTRAD.

Lat. 48° 30' 30" N.; Long. 64° 13' 0" W.

# (C. Bourget, Keeper.)

A fixed white catoptric light; five mammoth flat-wick lamps, lipped chimneys. Wooden lantern. Size of reflectors,  $16 \times 5\frac{1}{2}$  inches deep; size of glass,  $36 \times 30 \times \frac{3}{2}$  inches; size of lantern, 6 feet 6 inches; size of gallery, 12 feet 6 inches; size of base,

13 feet; height of tower from base to vane, 28 feet; height of tower base to centre of lamp, 25 feet: consumes about 200 gallons of oil per season.

July 24.—Landed stores, &c.; inspected the lights, &c., and found all in good

order.

Description of Lighthouse at this Station.

The lighthouse is a square wooden building, painted white, with a rod roof. A hand fog-horn is at present in use at this Station, but an automatic horn is suggested as preferable. It would be of great service to the fishermen and vessels making or passing the shore.

GASPÉ BASIN HARBOUR LIGHT, O'HARA'S POINT, ON THE WHARF.

Lat. 48° 49' 53" N.: Long. 64° 31' 41" W.

(B. Eden, Keeper.)

A red catoptric light; one mammoth flat-wick lamp, and indicates the wharf.

GASPÉ LIGHTSHIP, SANDY BEACH.

Lat. 48° 50' 45" N.: Long, 64° 24' 30" W.

(N. ASCAH, Keeper.)

This vessel is moored off the extremity of the Spit. It has two dioptric lights, one red and the other white. The red light is 29 feet high, and the white light is 35 feet above the level of the deck.

The vessel is painted red, with the words "Lightship" on her sides.

#### CAPE GASPÉ LIGHTHOUSE AND STEAM FOG-WHISTLE.

Lat. 48° 45' 15" N.: Long. 64° 9' 15" W.

(C. Esnour, Keeper.)

A fixed red catoptric light; two No. 1 circular and two No. 1 flat-wick lamps, lipped chimneys. Wooden lantern. Size of reflectors,  $20 \times 12$  inches deep; size of glass,  $60 \times 28 \times \frac{3}{5}$  inches; size of ruby glass,  $21 \times 20\frac{1}{2}$  inches; size of lantern, 9 feet; size of gallery, 14 feet 6 inches; size of base, 14 feet: height of tower from base to vane, 32 feet; height of tower base to centre of lamp, 27 feet: consumes about 250 gallons of oil per season.

The fog-whistle sounds during fogs and snow-storms for ten seconds in each

minute, leaving an interval of fifty seconds between each blust.

July 30th.—Arrived, but could not land stores; left them at Gaspé Basin to be sent down; I went down by land; inspected lights, engines and boiler of steam whistle, &c., and found all in good order except the foundation of the fog-whistle house; it is sinking, and the water pipes from dam are leaking; I told the keeper to have them all put in order.

Description of Lighthouss and number of Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted white with a red roof, and in connection with it there are three other buildings consisting of:—

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The oil sked, built of wood, and painted red;

One engine house, built of wood, and painted white, with a red roof;

One coal shed, built of wood and painted white, with a red roof. Also a crane for taking up fuel. There is also a derrick below the light for taking up supplies.

A store shed for provisions.

The Government owns all the land, with the right of way required at the Station, purchased from Mr. Hyman, on the 8th May, 1876, for \$150. It consists of 165 x 135 feet of land at the lighthouse, and  $80 \times 165$  feet of land at the fog-whistle, with right of way as far as Robert's Landing.

#### CAPE ROSIER LIGHTHOUSE AND FOG-GUN STATION.

Lat. 48° 51' 57" N.; Long. 64° 12' 0" W.

### (A. TRUDEAU, Keeper.)

A fixed white first order dioptric light; five mammoth flat-wick lamps, lipped chimneys. Iron lantern. Size of glass, 28 x 24, 29½ x 28, 25½ x 28 x ¾-inches; size of lantern, 12 feet; size of gallery, 20 feet; size of base, 25 feet 6 inches; height of tower from base to vane, 112 feet; height of tower from base to centre of lamp, 104 feet: consumes about 200 gallons of oil per season.

The fog-gun is fired every hour during fogs and snow storms, and consumes about 1,500 pounds of powder, with a proportionate number of friction-tubes and cartridges. The keeper is also a telegraph operator, and furnishes meteorological

reports to the Meteorological Office.

July 25th.—Landed stores; inspected the lights, fog.gun, &c., and found all in good order; the fog.gun required a new vent, and one was put in.

# Description of Lighthouse and Fog-Gun Station.

The lighthouse is a circular stone building, clapboarded and painted white, with a red roof. In connection with it there are six other buildings, comprising:—

One dwelling house, built of white brick, with a red roof;

One gun-house, built of wood and painted white; One stable, built of wood and painted white;

One store shed, built of wood and painted white;

One powder magazine, built of fire-brick, with a zinc roof;

One oil-shed, built of wood and painted white.

The Government owns 199 acres of land at this Station, being lots No. 20 and 21, 1st Range East, in the township of Cape Rosier, purchased from the Department of Crown Lands, on the 17th February, 1863, for the sum of \$10.

#### CAPE MAGDALEN LIGHTHOUSE.

Lat. 49° 15' 40" N.; Long. 65° 19' 30" W.

# (G. LEVESQUE, Keeper.)

A red and white catoptric revolving light, every four minutes, with an interval of two minutes between each flash; four No. 1 circular-wick lamps. Iron lantern. Size of reflectors, 20 x 12 inches deep; size of glass, 60 x 28 ½ x ½ inches; size of ruby glass, 21 x 20½ inches; size of lantern, 9 feet; size of gallery, 15 feet; size of base, 17 feet; height of tower, base to vane, 54 feet; height of tower, base to centre of lamp, 48 feet: consumes about 300 gallons of oil per season.

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July 4th.—Landed stores, inspected the lights, revolving gear, &c.; found all in good order. The keeper has repaired the road from landing to lighthouse, and painted lighthouse and dwelling, and put all in good order.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse is a hexagonal wooden building, painted white, with a red roof; In connection with it there are also three other buildings, consisting of:—

One dwelling-house, built of wood, and painted white, with a red roof;

One oil-shed, built of wood, and painted white, with a red roof;

One store shed at the landing, built of wood, painted white, with a red roof.
The land (6 acres) has been purchased from Mr. Vachar, by the Government, for
the sum of \$200, with right of way from the landing to the lighthouse, and store shed
at the landing.

### REPORT OF THE INSPECTING ENGINEER.

Left Quebec 3rd July, 1878, at noon, with lighthouse supplies for Stations in the Gulf of St. Lawrence per steamship "Napoleon III."

#### MARTIN RIVER LIGHTHOUSE, SOUTH SHORE.

Lat; 49° 13' 25" N.; Long. 66° 9' 0" W

(JEAN GAUTHIER, Keeper.)

A fixed white catoptric light; five No. 1 circular-wick lamps. Iron lantern. Size of reflectors,  $20 \times 12$  inches deep; size of glass,  $60 \times 30 \times \frac{1}{2}$ -inches; size of lantern, 10 feet; size of gallery, 16 feet; size of base, 21 feet; height of tower, base to vane, 54 feet; height of tower, base to centre of lamp, 48 feet: consumes about 450 gallons of oil per season.

July 4th.—Landed stores, inspected lights &c.; found all in good order.

Description of Lighthouse and Buildings at this Station.

The lighthouse is a square wooden building, painted white, with a red roof, and has a dwelling-house combined with it. In connection with it there are also:—

One oil shed, built of wood, painted white, with a red roof.

The Government have not yet acquired the land upon which the buildings at this Station are erected.

#### SEVEN ISLANDS LIGHTHOUSE, NORTH SHORE.

Lat. 50° 5' 40" N.; Long. 669 22' 44" W.

(F. ARCAND, Keeper.)

A fixed white catoptric light; four No. 2 circular-wick lamps and two No. 1 flat-wick lamps, unlipped chimneys. Iron lantern. Size of reflectors, two 17 x 6 inches deep, four 18 x 10 inches deep; size of glass, 36 x 28 x §-inches; size of lantern, 7 feet 6 inches; size of gallory, 14 feet; size of base, 18 feet; height of tower, base to vane, 39 feet; height of tower, base to centre of lamp, 34 feet: consumes about 300 gallons of oil per season.

June 1st.—Landed stores inspected lights &c., and found all in good order.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted white, with a red roof. There are also other buildings consisting of:—

One oil shed, built of wood, and painted white.

One store shed, situated at the landing, about a quarter of a mile from the light-house, built of wood, and painted red. ?

#### SPECIAL REPORT.

QUEBEC, 6th June, 1878.

Sir,—According to your instructions I have supplied and inspected all the lighthouses from Quebec to Seven Islands, and found them all in good order, with the exception of three or four places that require some small repairs; these you will find noted in my Report.

I have also taken all the sizes of glass and reflectors, also description of lamps

and any other particulars regarding measurements, &c., as directed.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR.
Inspecting Engineer.

J. U. GREGORY, Esq., Agent, Department of Marine and Fisheries, Quebec.

EGG ISLAND LIGHTHOUSE, ON THE ISLAND.

Lat. 49° 38' 0" N; Long. 69° 10' 0" W

(P. Côté, Keeper.)

A revolving white catoptric light, interval of revolution,  $1\frac{1}{2}$  minute; six No. 1 circular-wick lamps. Iron lantern. Size of reflectors, 20 by 12 inches deep; size of glass, 60 by 36 by  $\frac{1}{2}$  inches; size of lentern, 10 feet; size of gallery, 17 feet; size of base, 20 feet; height of tower, base to vane, 50 feet; height of tower base to centre of lamp, 42 feet; consumes about 300 gallons of oil per season.

centre of lamp, 42 feet; consumes about 300 gallons of oil per season.

June 1st.—Landed stores, examined lights, revolving gear, &c. The tower and roof of buildings require painting. Left paint and oil with keeper, as he said he could get it done for about \$15. The new lighthouse put up last fall by the Department is first-class and strong, and the keeper reports no shaking when blowing

hard.

Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling-house combined is a square wooden building, and painted white, with a red roof; and there are also two other buildings, comprising:—One oil shed, built of wood, painted white, and with a red roof;

One store shed, built of wood, and painted white.

POINT DES MONT LIGHTHOUSE AND FOG-GUN STATION, AND PROVISION DEPOT, NORTH SHORE.

Lat. 49° 19' 35" N.; Long. 69° 21' 55" W.

(L. F. FAFFARI, Keeper.)

A fixed white catoptric light; seventeen No. 1 flat wick lamps, lipped chimneys. Iron lantern. Size of reflectors, 21 by  $8\frac{1}{2}$  inches deep; size of glass,  $23\frac{1}{2}$  by 28 by  $\frac{1}{4}$  inches; size of lantern, 12 feet; size of gallery, 23 feet; size of base, 28 feet; height of tower, base to vane, 75 feet; height of tower base to centre of lamp, 65 feet: consumes about 560 gallons of oil per season.

June 2nd.—Landed stores, inspected the lights, buildings, provision depôt, &c.;

found all in good order.

The fog-gun is fired every hour during fogs and snow-storms, and consumes about 1,500 lbs. of powder, together with a proportionate number of cartridges and friction-tubes.

The provision depot contains the same amount of supplies as that at Belle Isle. The keeper is furnished with a horse to draw fuel, water and supplies.

Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling-house combined is a circular stone building, clap-boarded, painted white, and with a red roof. In connection with it there are also five other buildings, consisting of:—

One provision depôt for shipwrecked mariners, built of stone and painted white;

One gun-house, built of wood, and painted white;

One oil-shed, built of wood, and painted white;

One powder-magazine, built of white brick, and with a zine roof; One stable and barn combined, built of wood, and painted white;

CAPE CHATTE LIGHTHOUSE, SOUTH SHORE.

Lat. 49° 5' 55" N.; Long. 66° 45' 29" W.

(J. Côré, Keeper.)

A flash catoptric white light, leaving an interval of thirty seconds between each flash; six No. 1 circular-wick lamps. Iron lantern. Size of reflectors, 20 by 12 inches deep; size of glass, 60 by 30 by ½ inches; size of lantern, 19 feet 6 inches; size of gallery, 17 feet 6 inches; size of base, 17 feet; height of tower, base to vane, 30 feet; height of tower base to centre of lamp, 24 feet: consumes about 400 gallons of oil per season.

May 31st.—Landed stores, inspected lights, revolving gear, &c.; found all in good order. The masons have finished the foundation for the new dwelling-house; the carpenters had arrived and were preparing to begin the dwelling. This is being

built by men from the Department, and was completed early in the season.

# Description of Lighthouse and Buildings at this Station.

The lighthouse is a square wooden building, painted white, with a red roof; there are also two other buildings, comprising one dwelling-house, built of wood, and painted white, with a red roof, situated about 480 yards E.N.E. from the lighthouse; also one oil shed, built of wood, painted white, and adjacent to the dwelling-house.

The Government acquired from Mr. D. Isabelle, of Cape Chatte, a portion of the property required at this station, on the 25th August, 1873, for the sum of \$200.

MATANE LIGHTHOUSE, SOUTH SHORE, COUNTY OF RIMOUSKI.

Lat. 48° 52' 0" N; Long. 67° 33' 0" W.

(F. DIONNE, Keeper.)

A fixed white catoptric light; two No. 1 circular and two mammoth flat-wick lamps, unlipped chimneys. Iron lantern. Size of reflectors  $2 \times 20 \times 12$  inches deep,  $2 \times 18 \times 7$  inches deep; glass,  $36 \times 28$  inches; lantern, 7 feet; gallery, 15 feet; base, 18 feet 6 inches x 30 feet 6 inches; height of tower, base to vane, 40 feet; height of tower base to centre of lamp, 34 feet: consumes about 220 gallons of oil per season.

### SPECIAL REPORT.

Quebec, 15th December, 1877.

SIR,—I had the alterations for spring, 1878, completed, and new lamps put up, stronger mammoth flats in place of No. 1 round-wick lamps. The keeper complains of the house being very cold, and has had to take a house in Matane for the winter. The house is very small and would require an addition to it, the same as at Metis, about 30 feet long by 12 feet wide. On examining I found that the tower will require two coats of paint and to be well puttied, the chimney rebuilt with firebrick, as it is falling down, a new floor over the kitchen, 12 x 15 feet, and the foundation of tower repaired.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,

Inspecting of Engineer.

J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

May 31.—Landed stores, inspected lights, &c.; found all in good order, except the repairs required, as reported to you in my letter of the 15th December last, which are much needed.

Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling-house combined is a square wooden building, painted white, with a red roof. In connection with it, there is also one oil shed, built of wood and painted red.

The Government acquired from T. Fraser, of Matane, the land required for this

Station, on the 30th June, 1874, for \$100.

LITTLE METIS POINT LIGHTHOUSE, SOUTH SHORE, COUNTY OF RIMOUSKI.

Lat. 48° 40' 15" N.; Long. 68° 2' 30" W.

(J. MARTIN, Keeper.)

A white catoptric light, showing a flash every minute, and making a complete revolution in two minutes; one No. 1 circular-wick lamp and one mammoth flat-

wick lamp, unlipped chimney. Iron lantern. Size of reflectors  $21 \times 14$  inches deep; size of glass  $36 \times 28 \times \frac{3}{8}$  inches; size of ruby glass,  $22 \times 22\frac{1}{2}$  inches; size of lantern, 7 feet 6 inches; size of gallery, 16 feet; size of base, 30 feet; height of tower, base to vane, 40 feet; height of tower, base to centre of lamp, 31 feet: consumes about 140 gallons of oil per season.

### SPECIAL REPORT.

QUEBEC, 15th December, 1877.

SIB,—I had the alterations for spring, 1878, completed, but on examining it again, I found that the frame of the lamps was broken; had it taken down and sent to Quebec. I found the place in good order. The keeper reported his house very comfortable since the addition was built to it; he reported his stable required clapboarding badly, and as he could get it done for \$30, I ordered him to have it done.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,
Inspecting of Engineer.

J. U. Gregory, Esq., Agent, Department of Marine and Fisherics, Quebec.

May 31.—Landed stores, inspected lights, revolving gear, &c.; found all in good order. Keeper reported the chimney in bad order; as he could have necessary repairs done, I gave him orders to do them.

Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling-house combined is a square wooden building, painted white, with a red roof. In addition to it there is also one oil shed, built of wood and painted red. About an acre of land on which the lighthouse is built, was bought by the Department from Mr. J. H. Ferguson, of Metis, on the 8th April, 1876, for \$100.

#### MANICOUAGAN SHOAL LIGHTSHIP AND STEAM FOG-WHISTLE.

Lat. 49º 2' 0" N.; Long. 68º 15' 0" W.

(REGIS LEBLANC, Keeper.)

Moored in twenty-five fathoms of water; two dioptric white lights, on separate masts; one 27 feet, and the other 24 feet above the level of the deck.

The fog-whistle is sounded with a blast of eight seconds duration, and after an anterval of eight seconds it is followed by another blast of eight seconds, which is ucceeded by an interval of two minutes and twenty seconds. Should the vessel, from any cause, be off her station, this will be denoted, in the day time, by a ball at her foremast head, and at night by a globe lantern, so that in the latter case she may appear like an ordinary vessel at anchor.

### SPECIAL REPORT.

QUEBEC, 6th December, 1877.

SIR,—I have to-day, with Mr. Routier, carpenter, carefully examined the hull, engines and boilers of the Manicouagan Lightship at winter quarters at Blais Booms, and find that the following repairs will have to be made to enable the vessel to take her station in the spring:—

Decks caulked, &c.;

Sails overhauled and repaired;

One set small woat sails;

Boiler chipped and caulked in bottom;

One new mud port in bottom of boiler;

Condenser taken down, cleaned and repaired;

One new whistle bell, and fitted to spindle;

Copper pipes and globe valves repaired; lamps repaired.

I am, Sir, Yours, &c.,

WM. BARBOUR,

Inspecting Engineer.

J. U. GREGORY, Esq., Agent,

Department of Marine and Fisheries, Quebec.

The above repairs were carried out last spring, and the vessel was in first-class order on opening of navigation.

The keeper, Captain T. Connell, accidentally shot himself on the 8th November, 1877, and was replaced by the present keeper.

#### FATHER POINT LIGHTHOUSE AND GUN STATION.

Lat. 48° 31' 25" N.; Long. 68° 27' 40" W.

### (J. McWilliams, Keeper.)

A fixed white catoptric light; six mammoth flat-wick lamps, unlipped chimneys. Size of reflectors, 18 x 7 inches deep; size of glass, 36 x 27 inches: consumes about 300 gallons of oil per season.

# SPECIAL REPORT.

QUEBEC, 15th December, 1877.

SIR,—The lamps at this Station are only temporarily placed; there are two rows of lamps on an iron base, 1½-inch in diameter, and about ten feet long, and when it blows strong the shaking of the tower breaks the chimneys and spoils the light. The lamps are 4 feet 6 inches from the windows, and this weakens them. The keeper complains of the house being very cold.

This tower has been built with 3-inch deals on the flat, and clapboarded; on the outside the deals have shrunk, and the wind blows through against the plaster, and the walls are at times covered with frost. It would require to have all the clapboarding taken off, and the joints of the deals covered with tarred paper to make it

warmer. The chimney requires altering as it smokes very badly.

I would also recommend that a table be put up in the lantern; also six new mammoth flat-wick lamps, as the old lamps are worn out. The vent of the gun had been stopped, and the blacksmith in repairing it broke his drill. He drilled a new one too far from the breech, and the gun recoils and injures the gun-house. A new vent will require to be put in further back, and the old one plugged.

I am, Sir, Yours, &c.,

(Signed)

WM. BARBOUR,
Inspecting Engineer.

J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

### SECOND SPECIAL REPORT.

QUEBEC, 23rd March, 1878.

SIB,—According to your orders, I went to Father Point Lighthouse to have new lamps placed, the gun bored, and a new vent put in. I left on the 19th ultimo; had all the above repairs executed; all put in good order; the new lamps tested, and the keeper found them a great improvement on the old ones.

I am, Sir, Yours, &c.,

Wm. BARBOUR,
Inspecting Engineer.

J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

May 31st, 1878.—Landed stores, inspected the lights, &c.; found all in good order—the repairs executed this spring being much required. The house and chimney have been thoroughly repaired.

Height of tower from base to vane, 52 feet; height of tower from base to centre of lamp, 43 feet; size of lantern, 12 feet; size of gallery, 29 feet; size of base.

26 feet 3 inches.

Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted white, with a white roof.

There are also three other buildings, consisting of :— One powder magazine, built of stone, with a zinc roof;

One oil-shed, built of wood, and painted white; One gun-house, built of wood, and painted white.

The signal gun stationed here is used to enable steamers to distinguish the Point. It consumes about 500 lbs. of powder, with a proportionate number of cartridges and friction-tubes every season.

The keeper is also telegraph operator.

# PORTNEUF LIGHTHOUSE (BELOW QUEBEC), NORTH SHORE.

Lat. 48º 37' 0" N.; Long. 69° 6' 0" W.

# (D. TREMBLAY, Keeper.)

A fixed white catoptric light; three No. 1 circular, and one mammoth flat-wick lamps. Iron lantern. Size of reflectors, one 18 x 6 inches, three 20 x 12 inches deep; size of glass,  $28 \times 36 \times \frac{2}{3}$ -inches; size of lantern, 7 feet 6 inches; size of gallery, 15 feet; size of base, 16 feet; height of tower, base to vane, 38 feet; height of tower, base to centre of lamp, 32 feet: consumes about 350 gallons of oil per season.

June 2nd.—Landed stores, inspected lights &c.; found all in good order, except the foundation of dwelling-house; the sand is washing away and it will require three or four logs round three sides, filled up with sand, to save the foundation. Told the keeper to find out the cost and report to Department.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted white, with a red roof.

There are also two other buildings, comprising one oil shed, built of wood, painted white; one store shed, built of wood, painted white.

### BICQUET LIGHTHOUSE, AND FOG-GUN STATION, NEAR CENTRE OF THE ISLAND.

Lat. 48° 25' 18" N.; Long. 68° 53' 20" W.

## (T. LEBEL, Keeper.)

A revolving white catoptric light every two minutes; twenty-one No. 1 flatwick lamps. Iron lantern. Size of reflectors,  $21 \times 8\frac{1}{2}$  inches deep; size of glass,  $30 \times 27\frac{1}{2} \times \frac{3}{8}$ -inches; size of lantern, 13 feet; size of gallery, 23 feet; size of base, 22 feet; height of tower, base to vane, 74 feet; height of tower, base to centre of lamp, 64 feet: consumes about 900 gallons of oil per season.

May 30th.—Landed stores, inspected lights, revolving gear &c., and found all in good order. The fög-gun is fired every hour during fogs and snowstorms; it consumes about 1,800 lbs. of powder, with a proportionate number of cartridges and friction-tubes.

# Description of Lighthouse and Buildings at this Station.

The lighthouse is a circular stone building, clapboarded and painted white. There are also four other buildings, consisting of one dwelling-house, built of stone, painted white, with a red roof;

One powder magazine, built of stone, painted white, with a zine roof; One gun house, built of wood, painted white, with oil shed combined;

One store shed at the landing, built of wood, painted white.

The Government pays an annual rent of \$24 to Mr. W. D. Campbell, of Quebec, for the use of the land at this Station.

GREEN ISLAND LIGHTHOUSE AND FOG-GUN STATION, NORTH PART OF THE ISLAND.

Lat. 48° 3' 17" N; Long. 69° 25' 10" W.

# (G. LINDSAY, Keeper.)

A fixed white catoptric light; thirteen No. 1 flat-wick lamps, lipped chimneys. Iron lantern. Size of reflectors, 21 x 9 inches deep; size of glass, 24 x 23½ inches; size of lantern, 10 feet 3 inches; size of gallery, 16 feet; size of base, 16 feet; height of tower, base to vane, 54 feet; height of tower, base to centre of lamp, 45 feet: consumes about 400 gallons of oil per season.

May 30th.—Landed stores, examined the lights &c.; found all in good order.

The fog-gun is fired every half-hour during fogs and snowstorms; the average consumption of powder during the season is about 3,000 lbs., with a proportionate number of cartridges and friction-tubes.

# Description of Lighthouse and Buildings at this Station.

The lighthouse is an octagonal stone building, clapboarded, painted white; there are also four other buildings, as follows:—

One dwelling-house, built of wood, painted white;

One powder magazine, built of stone, painted white; One stable and barn combined, built of wood, painted white;

One gun-house, built of wood, painted white.

The Government owns 30 acres of land at this Station, purchased from Mr. Peter Fraser, on the 29th June, 1811, for the sum of £150.

RED ISLAND LIGHTSHIP AND FOG-WHISTLE, RED ISLAND REEF.

Lat. 48° 6' 30" N.; Long. 69° 30' 20" W.

# (DAVID DAMOURS, Keeper,)

Two fixed white lights; one of these is a catoptric lantern, containing six No. 2 circular lamps, and the other a dioptric lantern; the former is 34 feet, and the latter 22 feet, above the deck.

The vessel is moored in ten fathoms of water to the north-east of the Island. During fogs and snowstorms a steam fog-whistle is sounded, giving a blast of ten seconds during each minute. If from any cause the vessel should be off her station, it will be indicated during the day by a ball at the foremast head, and at night by a circular lantern. giving her the ordinary appearance of a vessel at anchor; during fogs and under such circumstances, the whistle will be sounded irregularly like an ordinary steamer.

The ship is painted red, and the words "Red Island Lightship," is painted on each side in large letters.

#### SPECIAL REPORT.

Quebec, 6th December, 1877.

Sim—I have to-day, with Capt. Damours, Mr. Routhier, carpenter, and Mr. Vezina, blacksmith, carefully examined the hull, engines and boilers of the Red Island Lightship, in winter quarters at Blais Boom, and find the following repairs will require to be made so as to fit her to take her station in the spring:—

Companion and tank removed and mess-room;

Forecastle fitted up for four men;

One new davit stand; Shifting and fitting davit stands; Masthead stays changed; Repairs to rail on ship's side; Four new davits for boats; Repairs to condenser and new tubes; Repairs to copper pipes; New globe valves and whistle valve repaired; Coals taken out and bunkers repaired; Boiler and new supports; New port in bottom of boiler; Sails overhauled and repaired.

I am, Sir, Yours, &c.,

WM. BARBOUR. Inspecting Engineer.

J. U. GREGORY, Esq., Agent,

Department of Marine and Fisheries, Quebec.

The above repairs were carried out this spring, and the vessel was in first-class order on the opening of navigation.

#### RED ISLAND LIGHTHOUSE.

Lat. 489 4' 20" N.; Long. 699 32' 56" W.

(E. FRASER, Keeper.)

A fixed red catoptric light; fourteen mammoth flat-wick lamps, lipped chimneys. Iron lantern. Size of glass, 30 by 30 inches; size of reflectors, 21 by 9 inches deep; size of lantern, 13 feet: size of gallery, 27 feet; size of base, 26 feet; height of tower, base to centre, 64 feet; height of tower base to centre of lamp, 54 feet; consumes about 520 gallons of oil per season.

May 30th.—Landed stores, examined the lights, &c.; found all in good order.

Description of Lighthouse and Buildings at this Station.

The lighthouse is a circular stone building, with the roof painted red. In connection with it there are three other buildings, comprising :-

One dwelling-house, built of white brick, with a red roof;

One oil shed, built of wood, painted white; One store shed, built of wood, painted white.

LARK ISLAND LIGHTHOUSE, ENTRANCE TO THE SAGUENAY.

Lat. 48° 5' 30'' N.; Long. 69° 40' 0'' W.

(P. Boulliaume, Keeper.)

A fixed white catoptric light, three mammoth flat wick lamps, lipped chimneys. Iron lantern. Size of reflectors, 16 by 51 inches deep; size of glass, 30 by 30 inches; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 14 feet; height of tower, base to vane, 38 feet; height of tower base to centre of lamp, 31 feet: consumes about 100 gallons of oil per season.

May 30th.—Landed stores, inspected the lights, &c.; found all in good order. The keeper lives in the lighthouse, as his dwelling was burned this spring. A new dwelling for the keeper has since been put up at this Station.

Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is built of wood, and painted white, with a red roof. In connection with it, there is also—
One oil shed, built of wood, painted white, with a red roof.

### TADOUSAC RANGE LIGHTS, ENTRANCE TO THE SAGUENAY.

Lat. 48° 5' 38" N.; Long. 69° 42' 35" W. " 48° 5' 40" N.; " 69° 43' 2" W.

(L. GUAY, Keeper.)

Two fixed white catoptric lights, one situated at Point Noir, and the other 608 yards distant; two mammoth flat-wick lamps, unlipped chimneys. Size of reflectors, 18 x 6 inches deep; size of glass, 30 x 30 inches. Lower tower:—Size of lantern, 6 feet; size of gallery, 11 feet 6 inches; size of base, 15 feet; height of tower from base to vane, 28 feet; height of tower from base to centre of lamp, 22 feet 6 inches. Upper tower:—Size of lantern, 6 feet; size of gallery, 11 feet 6 inches; size of base, 15 feet; height of tower from base to vane, 26 feet; height of tower from base to centre of lamp, 20 feet.

These lights are for the purpose of guiding vessels clear of Prince's Shoal, Bar

Reef and Vache's Shoal.

May 30th.—Landed stores, inspected the lights, &c., and found all in good order.

Description of Lighthouse and Buildings at this Station.

Both are square towers, built of wood, painted white.

The keeper lives in the Point Noir Lighthouse, about 200 yards from the one. There is an oil shed, built of wood and painted white.

# CHICOUTIMI RANGE LIGHTS, 1ST RANGE.

Lat. 48° 26' 52" N.; Long. 70° 58' 9" W.

Jos. GAUDREAU, ARTHUR SIMARD, & Keepers.

Being the two lights on the south side of the River Saguenay and entrance channel to Chicoutimi Harbor.

Two fixed white catoptric lights, 910 feet apart; upper light, 40 feet high from

high-water mark to centre of lantern, 43 feet from base to vane.

Lower light, 26 feet from centre of lantern to high-water mark, 26 feet from base to vane,—should be seen five miles off.

2nd range, north side of the river.

Lat. 48° 27' 56" N.; Long. 70° 58' 38" W.

Fras. Gauthier, Jos. Dupre,

Twoffixed white lights, 765 feet apart; upper light, 41 feet from centre of lantern'to high-water mark, and 40 feet from base to vane.

Lower light, 25 feet from centre of lantern to high-water mark, 27 feet from base to vane,—should be seen four miles off.

3RD RANGE, NORTH SIDE OF THE RIVER.

Lat. 48° 27' 57" N.; Long. 70° 59' 56" W.

(XAVIER SAVARD, Keeper.)

Two fixed white lights, 124 feet apart; upper light, 41 feet from centre of lantern to high-water mark, 40 feet from base to vane.

Lower light, 29 feet from centre of lantern to high-water mark, and 25 feet from base to vane,—should be seen three miles off.

4TH RANGE, NORTH SIDE OF THE RIVER.

Lat. 48° 27' 41" N; Long. 71° 0' 39" W.

(ADOLPHE BOUDREAU, Keeper.)

Two white lights, 714 feet apart; upper light, 40 feet from centre of lantern at high-water mark, and 44 feet from base to vane.

Lower light, 22 feet from centre of lantern to high-water mark, and 26 feet from base to vane,—should be seen three miles off.

5TH RANGE, SOUTH SIDE OF THE RIVER.

Lat. 48° 26' 27" N.; Long. 71° 1' 32" W.

(JEREMIE MARIE, Keeper.)

Two white lights, 385 feet apart; upper tower, 59 feet from centre of lantern to high-water mark, and 27 feet from base to vane.

Lower tower, 40 feet from centre of lantern to high-water mark, and 26 feet

from base to vane,—should be seen two and a half miles off.

These 10 new lights, are to lead turough the channel of Chicoutimi Harbor.

They were first exhibited in 1873, and could be all seen at equal distances, but are prevented by bends in the channel from being used at other distances than stated. Complaints having been made that there was not sufficient difference in height between the two lights at each range, the upper or highest lanterns were this season raised ten feet, and pronounced a great improvement.

The spring tides come up to the base of some of the towers, and even higher at

others, hence the difference in their measurements from high-water mark.

Each land has a covering to protect it from the action of wind and water.

A red glass has also been put to the face of the harbour lights to indicate the wharf.

### BRANDY POTS LIGHTHOUSE, ON THE ISLAND.

Lat. 47° 52' 36" N.; Long. 69° 40' 50" W.

# (W. RICHARD, Keeper.)

A fixed white fourth-order dioptric light; one mammoth flat-wick lamp. Iron lantern. Size of glass,  $43 \times 29 \times \frac{1}{2}$ -inches; size of lantern, 5 feet 10 inches; size of gallery, 12 feet; size of base, 30 feet 6 inches square; height of tower, base to vane, 40 feet; height of tower base to centre of lamp, 36 feet: consumes about 70 gallons of oil per season.

May 29th.—Landed stores, examined the lights, &c. The roof of the dwelling will require shingling and painting; the handrail, platform and slip will require repairs next year; the keeper will advise the Department as to what will be needed.

The above repairs have since been made.

Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted drab, with a red roof. There is also one oil shed, built of wood, and painted white.

LONG PILGRIMS LIGHTHOUSE, ON THE ISLAND.

Lat. 47° 43' 15" N.; Long. 69° 44' 20" W.

(J. C. MARQUIS, Keeper.)

A fixed white fourth-order dioptric light; one mammoth flat-wick lamp, lipped chimney. Iron lantern; size of glass, 43 x 29 inches. Size of lantern, 5 feet 10 inches; size of gallery, 12 feet; size of base, 30 feet 6 inches square; height of tower, base to vane, 40 feet; height of tower base to centre of lamp, 36 feet: consumes about 70 gallons of oil per season.

May 29th.—Landed stores, inspected the lights, &c.; found all in good order.

The keeper will require a new flat boat.

Description of Lighthouse and number of Buildings at this Station.

The lighthouse and dwelling combined is built of wood and covered with brick, painted drab, with a red roof.

There is also one oil shed, built wood, and painted white.

# GRAND ISLE LIGHTHOUSE, KAMOURASKA.

Lat. 47° 38' 20' N.; Long. 69° 51' 40" W.

# (J. R. DESJARDINS, Keeper.)

A revolving white catopric light, making a flash every 45 seconds, and a full revolution every  $1\frac{1}{2}$  minute; four No. 1 circular-wick lamps, two on each face. Iron lantern. Size of reflectors,  $22\frac{1}{2} \times 15$  inches deep; size of glass,  $28 \times 36$  inches; size of lantern, 7 feet 6 inches; size of gallery, 12 feet; size of base, 15 feet 6 inches; height of tower, base to vane, 40 feet; height of tower base to centre of lamp, 33 feet: consumes about 260 gallons of oil per season.

May 29th.—Landed stores, inspected the lights, revolving gear, &c., and found

all in good order.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling-house combined is a square wooden building; painted white, with a red roof.

There are also two other buildings, consisting of one oil shed, built of wood,

painted white; one store shed at landing, built of wood, painted white.

# POINT AUX ORIGNEAUX LIGHTHOUSE, RIVIÈRE OUELLE, KAMOURASKA.

Lat. 47° 29' 36" N.; Long. 700 11' 43" W.

A fixed red catoptric light; three mammoth flat-wick lamps. Iron lantern. Size of reflectors, 18 x 6 inches deep; size of glass, 36 x 30 inches; size of lantern, 5 feet; size of gallery, 11 feet; size of base, 14 feet 9 inches; height of tower, base to vane, 30 feet; height of tower base to centre of lamp, 25 feet; consumes about gallons of oil per season.

May 29th.—Landed stores, inspected lights, &c.; found all in good order.

This light would be of more service if white, instead of red, as this colour is not

seen far enough by passing vessels.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is a square, wooden building, painted white, with a red roof. In connection with it there is one oil shed, built of wood, painted white.

# GOOSE CAPE LIGHTHOUSE, COUNTY OF CHARLEVOIK, NORTH SHORE, RIVER ST. LAWRENCE.

Lat. 47° 29' 30" N.; Long. 70° 13' 45" W.

# (J. SAVARD, Keeper.)

The light was first put into operation on the 29th October, 1876, and is a fixed white catoptric one, elevated 48 feet above high-water mark, and should be seen about 12 miles off.

One No. 2 circular-wick lamp; four mammoth flat-wick lamps, lipped chimneys. Iron lantern. Size of reflectors, one 15 x 8 inches, four 16 x 5½ inches deep; size of lantern, 7 feet 6 inches; size of gallery, 13 feet; size of base, 39 feet, and 19 feet 8 inches; height of tower from base to centre of lamp, 37 feet: consumes about 162 gallons of oil per season.

June 3rd.—Landed stores, inspected lights, &c., and found all in good order; the

lantern requires painting, and the keeper was told to have it done.

# Description of Buildings at this Station.

The tower, with a dwelling-house attached; also one oil-shed, built of wood and painted white.

The Department has obtained, by purchase, from Widow François Lapointe, the land upon which the buildings are erected, with right of way through her property, for the sum of \$80, paid on the 10th of August, 1877.

### SPECIAL REPORT.

SIR,—The keeper wants to have a gallery around the three sides of the dwelling and lighthouse, which has since been built. I examined the place, and find a gallery is very much needed, as it is dangerous at night without it. It will require to be on three sides—39 feet each side, and 27 feet at the end, with upright supports from the rock about 6 or 7 feet long.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,
Inspecting Engineer.

J. U. Gregory, Esq., Agent,
Department of Marine and Fisheries, Quebec.

ST PAUL'S BAY LIGHTHOUSE, COUNTY OF CHARLEVOIX, NORTH SHORE, RIVER ST.

Lat. 47º 24' 45" N.; Long. 70° 29' 0" W.

(HILAIRE TREMBLAY, Keeper.)

The light was first put into operation on the 29th October, 1876, and is a fixed white catoptric light, elevated 36 feet above high-water mark, and should be seen 10 miles off in clear weather.

Three mammoth flat-wick lamps, lipped chimneys. Iron lantern. Size of reflectors, 17 x 6 inches deep; size of glass, 36 x 30 x ½ inches; size of lantern, 5 feet 6 inches; size of gallery, 12 feet 6 inches; size of base, 15 feet 8 inches; height of tower from base to vane, 30 feet; height of tower from base to centre of lamp, 26 feet: consumes about 100 gallons of oil per season.

June 3rd.—Landed stores, inspected lights, &c., and found all in good order.

The tower is a square wooden building, 30 feet high from base to vane, with dwelling-house attached, the whole painted white. There is also an oil shed, painted red. All the buildings connected with this lighthouse are erected on the pier in the centre of the bay, used as a landing place.

There is a new store shed being built.

### LOWER TRAVERSE LIGHTSHIP AND STEAM FOG-ALARM.

Lat. 47° 22' 10" N., 70° 14' 50" W.

(J. GOURDEAU, Keeper.)

Two fixed dioptric lights, one upon each mast. If, from any cause, the light-ship moves from her station, one light only will be shown, and during the day a red ball will be shown from the mainmast. The steam fog-whistle is sounded during thick weather in fegs and snow storms, for 12 seconds in each minute, leaving an interval of 48 seconds between each blast.

The vessel is painted red, and has the words "Traverse Lightship" painted on

both sides.

### SPECIAL REPORT.

QUEBEC, 7th December 1877.

Sir,—I have to-day, with Captain Gourdeau, examined carefully the hull, outside and inside, also engines and boilers of the Lower Traverse Lightship, now on Mr. Davies' patent slip, Point Lévis, and find that the following repairs will require to be done, while the vessel is on the slip, besides the regular outfit in the spring:—

Two sheets \(\frac{3}{8}\)-inch boiler plate on each side of bow to prevent anchor chains

chafing side;

Rudder repaired and parts of bottom chipped and caulked; Hull to be scraped inside and out, and three coats of paint;

Lamp guides on masts to be extra bolted;

Four cast-iron stands for boat's davits;

Steam dome scraped, painted and covered over with hair, felt and wood;

Fore peak, caulking deck over store room; New bulkheads and lining in forecastle;

Boiler to be lifted, and bottom chipped and caulked;

Condenser, new tubes and repaired;

Repairs to copper pipes; one new steam gauge;

Whistle bell repaired and fitted to spindle;

Ship's sails overhauled and repaired;

Cleaning tanks;

Sand, cement, and labour;

New rails for ship's side.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,

Inspecting Engineer.

J. U. GREGORY, Esq., Agent,

Department of Marine and Fisheries, Quebec.

The above repairs, as suggested by the Inspecting Engineer, were carried out this spring, and the vessel was put in first-class order on the opening of navigation.

UPPER TRAVERSE LIGHTSHIP, NORTH-WEST EDGE OF ST. ROCH'S SHOAL.

Lat. 479 19' 50' N.; Long. 709 16' 0" W.

### (M. DECHENE, Keeper.)

Two fixed dioptric lights; one lantern eight feet above the other: consumes about 50 gallons of oil per season. Should the lightship be out of place, the light on the foremast is alone exhibited, and during the day the ball on the foremast head is taken down, and a bell is tolled during thick weather, fogs and snowstorms.

The ship is painted red, and has the words "Lightship" painted on both sides. A new vessel has been built by the Department this spring, and is now on this

Station.

STONE PILLARS LIGHTHOUSE, ON THE ISLAND.

Lat. 47° 12' 25" N.; Long. 70° 21' 26" W.

(D. BABIN, Keeper.)

A revolving white catoptric light, every one and a half minute, fifteen No. 1 flat wick lamps, lipped chimneys. Iron lantern. Size of reflectors 21 x 9 inches deep; 39

size of glass,  $24 \times 24 \times \frac{1}{4}$  inches; size of lantern, 13 feet 9 inches; size of gallery, 20 feet; size of base, 18 feet; height of tower from base to vane, 50 feet; height of tower from base to centre of lamp, 43 feet: consumes about 500 gallons of oil per season.

May 29.—Landed stores, inspected lights, &c., revolving gear, found all in good order.

Description of Lighthouse and Buildings at this Station.

The lighthouse is a circular stone building, with a red roof. There are also two other buildings, comprising:—

One dwelling house built of stone, painted white with a red roof. One store shed, built of wood and painted white.

### ALGERNON ROCK, REFLECTING TOWER, NEAR THE PILLARS.

The pier and reflecting tower on this rock were completed the fall of 1876, and

have withstood the action of the ice, and proved of staunch construction.

The reflecting apparatus has not proved efficient, and is consequently not put in operation yet; but the pier and tower being painted white, with broad black corners, have proved of good service in indicating the rock upon which they are built.

The pier has been injured by the action of ice and now requires strengthening.

### CRANE ISLAND LIGHTHOUSE, ON THE ISLAND.

Lat. 47° 3' 30" N.; Long. 70° 32' 30" W.

# (G. PAINCHAUD, Keeper.)

A fixed white catoptric light; five mammmoth flat-wick lamps, lipped chimneys. Iron lantern. Size of reflectors, 21 x 11 inches deep; size of glass, 16 x 14 x \frac{1}{2}-inches; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 16 feet; height of tower from base to vane, 42 feet; height of tower from base to centre of lamp, 36 feet: consumes about 220 gallons of oil per season.

May 28.—Landed stores, examined lights, &c.; found all in good order. The repairs to the pier last summer by this Department were first class. The keeper wants

a larger window in the lower flat as the present one is too small.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is built of wood, and painted white and situated on the pier.

There is also one oil shed, built of wood and painted white.

### BELLECHASSE LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 56' 0" N.; Long. 70° 46' 0" W.

### (E. THIVIERGE, Keeper.)

A fixed white catoptric light; five mammoth flat-wick lamps, lipped chimneys; size of reflectors,  $21 \times 11$  inches deep; size of glass,  $16 \times 4\frac{1}{2} \times \frac{1}{2}$  inches; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 15 feet 6 inches; height of tower, base to vane, 40 feet; height of tower base to centre of lamp, 34 feet; consumes about 180 gallons of oil per season.

May 8th.—Landed stores, inspected lights, &c.; found all in good order. Two sides of the tower have been planked over the clap-boards, and are now tight, but the other two leak. The keeper wants them also planked, and two coats of paint, which is much required.

Description of Lighthouse and Buildings at this station.

The lighthouse and dwelling combined is a square wooden building, painted white, with a red roof.

MONTE DU DAC LIGHTHOUSE, NORTH SHORE.

Lat. 47° 7' 40" N.; Long. 70° 42' 30" W.

(E. SIMARD, Keeper.)

Fixed white catoptric lights.

Upper Tower—Two No. I flat-wick lamps; wooden lanterns; size of reflector, 15 x 5 inches deep; size of glass,  $20\frac{3}{4}$  x  $37\frac{3}{4}$  inches; size of lantern, 5 feet; size of gallery, 11 feet; size of base, 16 feet; height of tower, base to centre of lamp, 29 feet.

of tower base to centre of lamp, 29 feet.

Middle Tower—One No. 1 flat-wick lamp; size of reflectors, 15 by 5 inches deep; size of glass, 36 by 30 inches; size of lantern, 6 feet; size of gallery, 10 feet; size of base, 15 feet; height of tower, base to vane, 24 feet; height of tower base to

centre of lamp, 19 feet.

Lower Tower—One No. 1 circular-wick lamp; size of reflectors, 15 by 5 inches deep; size of glass, 36 by 30 inches; size of lantern, 6 feet; size of gallery, 10 feet 6 inches; size of base, 15 feet; height of tower, base to vane, 37 feet; height of tower base, to centre of lamp, 33 feet; consumes about 160 gallons of oil per season. June 3rd.—Landed stores, inspected lights, &c.; found all in good order.

Description of Lighthouse and Buildings at this Station.

The lighthouse is a square wooden building, painted white, with a red roof.

There is also one dwelling-house and oil shed combined, built of wood, and painted white.

The two range lights are situated a little to the north of the lighthouse, and are

built on frame work.

# NORTH CHANNEL TRAVERSE RANGE LIGHTS.

Lat. 47° 0' 12" N., Long. 70° 45' 19" W. Lat. 47° 0' 24" N.; Long. 70° 44' 51" W.

J. MARTEAU, F. LEPAGE. Keepers.

Two range lights 1,379 yards apart, at St. Francis, east end of the Island of Orleans, indicate the channel between the West Sands and the Traverse Spit. Both lights are fixed white catoptric lights; No. 1 circular-wick lamps, Wooden lanterns. Size of reflectors, 18 x 6 inches deep; size of glass, 30 x 60 inches; size of lantern, 6 feet; size of gallery, 10 feet; size of base, 16 feet 8 inches. height of tower, base to vane, 28 feet; height of tower base to centre of lamp, 24 feet; consumes about 160 gallons of oil per season.

June 3rd.—Landed stores, inspected the lights, &c., and found them all in good order. The lower tower leaks through the joints; will require battens over them

and painting.

# Description of Lighthouses and Buildings at these Stations.

The lighthouses and dwellings combined are square wooden buildings, painted

white. The oil sheds are also combined with the lighthouses.

The Government has acquired by purchase, from Mr. Francis Lemelin, of St. Francis, 60 square feet of land, upon which the tower is erected, for the sum of \$25, on the 4th March, 1876—Mr. George Larue, Notary Public. Also from Mr. Joseph Marceau, of St. François, 60 square feet of land, upon which the upper tower is erected, for the sum of \$30, on the 29th February, 1876—Mr. George Larue, Notary Public.

### PORT ST. JOHN LIGHTHOUSE, ISLAND OF ORLEANS.

Lat. 46° 55' 20" N.; Long. 70° 53' 30" W.

# (C. LANGLOIS, Keeper.)

A revolving white catoptric light, shewing a flash every thirty seconds; two mammoth flat-wick lamps, unlipped chimneys. Iron lantern. Size of reflectors,  $21 \times 14\frac{1}{2}$  inches deep; size of glass,  $36 \times 28 \times \frac{2}{3}$ -inches thick; size of lantern, 7 feet 6 inches; size of gallery, 13 feet 6 inches; size of base, 14 feet; height of tower from base to vane, 30 feet; height of tower from base to centre of lamp, 24 feet: consumes about 120 gallons of oil per season.

May 28th.—Landed stores, inspected the lights, revolving gear, &c.; found all in good order, except the tower, which requires painting; told the keeper when

in Quebec to call at Department and arrange about its being done.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is a square wooden building, painted white. There is also one oil shed, built of wood and painted white.

These buildings are situated on the wharf.

#### POINT ST. LAWRENCE LIGHTHOUSE, ISLAND OF ORLEANS.

Lat. 46° 51' 50" N; Long. 71° 0' 40" W.

### (J. CHABOT, Keeper.)

A fixed white catoptric light; five mammoth flat-wick lamps, lipped chimneys. Iron lantern. Size of reflectors, 18 x 3 inches deep; size of glass, 27 x 16 inches; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 16 feet 6 inches; height of tower from base to vane, 40 feet; height of tower from base to centre of lamp, 35 feet: consumes about 180 gallons of oil per season.

May 28th.—Landed stores, inspected lights, &c.; found all in good order.

Some repairs are necessary to the wharf upon which the tower is erected, the greater portion of which will be made by Department of Public Works.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is built of wood, painted white, and situated at the end of the wharf.

The oil store is in the lower part of the building. The lighthouse has been painted this spring.

### SPECIAL REPORT.

QUEBEC, 14th May, 1878.

SIR,—In conformity with your orders I have supplied and inspected all the lighthouses from Quebec to Montreal, and found them in good order, except three or four which you will find noted in my Report.

I have also taken all the sizes of glass, and description of lamps, reflectors and

buildings, and all other particulars that may be useful.

I am, Sir, Yours, &c.,

(Signed) \

WILLIAM. BARBOUR,
Inspecting Engineer.

J. U. Gregory, Esq., Agent Department of Marine and Fisheries, Quebec.

### INSPECTING ENGINEER'S REPORT.

LOG OF S. S. DRUID.

May 6th, 1878.—Left Quebec at 6.45 a.m., with lighthouse supplies for stations above Quebec.

# LIGHTHOUSES AND LIGHTSHIPS ABOVE QUEBEC.

ST. ANTOINE LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 39' 40" N.; Long. 71° 36' 10" W.

(L. LAFLEUR, Keeper.)

A fixed white catoptric light; two mammoth flat-wick lamps, unlipped chimneys; and two No. 1 circular-wick lamps; size of reflectors,  $18 \times 6$  inches deep,  $20 \times 12$  inches deep; size of glass,  $42 \times 30 \times \frac{1}{4}$  inches; height of tower from base to vane, 27 feet; height of tower from base to centre of lamp, 20 feet 6 inches; size of lantern, 8 feet; size of gallery, 12 feet square; size of base, 13 feet square: consumes about 260 gallons of oil per season.

May .—Landed stores, inspected lights and buildings, and found all in good

order.

# Description of Lighthouse and Buildings at this Station.

The lighthouse is a square wooden building, painted white. The oil-shed is

combined with the lighthouse.

The Government has acquired by purchase, from Mr. François Xavier Bergeron, of the parish of St. Giles, one arpent in superficies, with right of way, for the sum of £62 10s.—Mr. Côté, Notary Public. Deed of sale, 26th December, 1854.

ST. CROIX LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 37' 45" N; Long. 71° 44' 10" W.

# (J. THURBER, Keeper.)

A fixed white catoptric light; two No. 1 circular lamps. Size of reflectors, 20 x 12 inches deep; size of glass, 36 x 30 x 1 inches; height of tower, base to vane, 41 feet; height of tower, base to centre of lamp, 35 feet; size of lantern, 9 feet; size of gallery, 14 feet; size of base, 17 feet: consumes about 150 gallons of oil per season. May 6th.—Landed stores, examined the lights with Captain Marmen, and found

May 6th.—Landed stores, examined the lights with Captain Marmen, and found all in good order and clean. The tower will require two coats of paint this summer.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined, is a square wooden building, painted

white. The oil store is in the lighthouse.

The Government pays Mr. C. Durocher a yearly rent of \$6 for a strip of land adjoining the lighthouse, as agreed by his letter to the Quebec Trinity House, dated 24th September, 1863, and verbally relinquished all claim to the lot upon which the tower is erected near the beach.

# PORT NEUF LIGHTHOUSE, NORTH SHORE (ABOVE QUEBEC.)

Lat. 46° 41' 48" N; Long. 71° 52' 10" W.

# (F. Rodrigue, Keeper.)

Two fixed white catoptric lights, about 180 yards apart. Lower tower:—Two No. 1 circular wick lamps; size of reflectors,  $22 \times 12$  inches deep and  $19\frac{1}{2} \times 12$  inches; size of glass,  $30\frac{1}{2} \times 27\frac{1}{2}$  inches, and  $30\frac{1}{2} \times 21$  inches; height of tower, base to vane, 30 feet; height of tower, base to centre of lamp, 24 feet; size of lantern, 6 feet; size of gallery, 11 feet; size of base, 18 feet 6 inches  $\times 35$  feet. Upper tower:—One mammoth flat-wick lamp, lipped chimnies; size of reflectors,  $16\frac{1}{2} \times 2\frac{1}{2}$  inches size of glass,  $19\frac{1}{2} \times 19$  inches; size of lantern, 5 feet 2 inches square: size of gallery, 13 feet 6 inches; size of base, 13 feet 6 inches. This tower is a circular stone tower. They consume about 360 gallons of oil per season.

May 6th.—Landed supplies, examined the lights with Captain Marmen, and

found all in good order.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined, are square stone buildings, painted white. There are also two other buildings, consisting of:—

One oil shed, built of wood, and painted white;

One barn and stable combined, built of wood, and painted white.

The Government acquired by purchase, from Mr. Joseph Poliquin, of Portneuf, one hundred feet in front, French measure, by two hundred feet in depth, for the sum with £125, with buildings thereon.—Mr. Errol B. Lindsay, Notary Public. Deed of sale dated 20th day of April, 1847.

### PLATON POINT LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 39' 13" N; Long. 71° 53' 03" W.

# (P. BEAUDET, Keeper.)

Two fixed white catoptric range lights, 208 yards apart. Large tower:—Two mammoth flat-wick lamps, lipped chimnies; size of reflectors, 18 x 7 inches deep; size of glass, 35 x 33 inches; height of tower, base to vane, 45 feet; height of tower, base to centre of lamp, 38 feet; size of lantern, 5 feet 9 inches; size of gallery, 11 feet 9 inches; size of base, 18 feet. Small tower:—Two mammoth flat-wick lamps, lipped chimnies; size of reflectors, 18 x 7 inches deep; size of glass, 24 x 24 inches; height of tower base to roof, 8 feet; height of tower, base to top, 11 feet; size of base 11 feet 8 inches x 12 feet 9 inches. The two consume about 150 gallons of oil per season.

May 6th.—Landed stores, examined the lights and buildings with Captain Marmen; found all in good order. The repairs made to the foundation of the large tower by this Agency have been well done, and are in good order; the roof of the small tower required shingling, left shingles and paint for the purpose; made agreement with E. Hamel to do all the work for the sum of \$15.

# Description of Lighthouses and Buildings at this Station.

The lighthouses are two square wooden buildings, painted white, and the oil

store is combined with one of the lighthouses.

The Government has acquired by purchase, from Michael Gauron, an irregular piece of ground, ending in a point, containing one arpent of land, more or less, for the sum of £27 10s.—Mr. Theodore Doucet, Montreal, Notary Public. Deed of sale, dated 10th January. 1851.

# RICHELIEU ISLET LIGHTHOUSE, SOUTH SHORE OF THE ISLET.

Lat. 46° 38' 30" N.; Long. 71° 54' 51" W.

# (H. Blais, Keeper.)

A fixed white catoptric light; three mammoth flat-wick lamps, lipped chim neys. Size of reflectors, 18 x 7 inches deep: size of glass, 36 x 36½ and 35½ x 35½ x ½ inches; size of lantern, 9 feet; size of gallery, 22 feet 6 inches; size of base, 27 feet; height of tower, base to vane, 35 feet; height of tower to centre of lamps, 29 feet; consumes about 75 gallons of oil per season.

May 7th.—Landed stores, examined the lights and buildings, and found them all in good order. The lantern required to be painted; left paint and oil, and told the

keeper to get Mr. Hamel to have the work done.

# Description of Lighthouse and Buildings at this Station.

The lighthouse and dwelling combined is a square stone building, and painted white. There is also one oil shed, built of wood, and painted white.

# LOTBINIÉRE UPPER LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 37' 10" N.; Long. 71° 56' 21. W"

### (O. C. DE LACHEVROTIÉRE, Keeper,)

A fixed white catoptric light; one mammoth flat-wick lamp; lipped chimneys; Size of reflectors, 15 x 5 inches deep; size of glass,  $36 \times 36 \times \frac{1}{8}$  inches, 24 x 36 inches

and 22 x 36 inches; size of lantern, 5 feet 9 inches; size of gallery—feet; size of base, feet; height of tower, base to vane, 12 feet; height of tower to centre of lamp, 6 feet 6 inches; consumes about 50 gallons of oil per season.

May 7th, -Landed stores, examined the lights and buildings; found them all in good order, except the lamp and reflector. The latter is very bare, and the frame

worn out. I would recommend a new 18-inch reflector and a new lamp.

A lofty spruce tree on the hill, about two acres from this light, has been reserved as a beacon for the navigation of the Richelieu, of which it is an important aid. Thirty square feet around the beacon have been retained, together with a right of passage thereto.

These two lights (upper and lower) are about 1,300 yards apart.

# Description of Lighthouse at this Station.

The lighthouse is a square wooden building, painted white, with oil shed combined.

The Government has acquired from the proprietor; Mr. O. C. de Lachevrotière. 30 square feet of land, upon which the light is erected, and also right of way, for the sum of \$100; also, from Mr. Clement Charles Lair, of the same parish, 20 square feet of land, with a white spruce tree thereon, serving as a beacon, with right of way, for the sum of \$20.—Mr. H. C. Austin, Notary Public. Deed of sale dated 11th May, 1875.

### LOTBINIÉRE LOWER LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 37' 10" N.; Long. 71° 56' 21" W.

# (O. BEAUDET, Keeper.)

A fixed white eatoptric light; one mammoth flat-wick lamp, unlipped chimreys. Size of reflector,  $14 \times 4\frac{1}{2}$  inches deep; size of glass,  $36 \times 36 \times \frac{1}{4}$  inches, and  $36 \times 24 \times \frac{1}{4}$  inches; size of lantern, 5 feet 6 inches; size of wharf, 14 feet; size of base, 9 feet 8 inches; height of tower, base to vane, 15 feet; height of tower base to centre of lamp, 11 feet: consumes about 50 gallons of oil per season.

May 7th.—Landed stores, examined the lights and buildings, and found all in

good order.

### Description of Lighthouse at this Station.

The lighthouse is a square wooden building, painted white.

The Government purchased from Mr. O. Beaudet, a piece of land, 25 feet by 50 feet long, with right of way, for the sum of \$50.—Mr. H. C. Austin, Notary Public, Quebec. Date of deed of sale, 19th July, 1875.

### RIVIÈRE DUCHÊNE LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 35' 5" N.; Long. 71° 59' 35" W.

# (O. Langlois, Keeper.)

A fixed white catoptric light; two mammoth flat-wick lamps, lipped chimneys; Size of reflectors,  $15 \times 5\frac{1}{2}$  and  $18 \times 6$  inches; size of glass,  $34\frac{1}{4} \times 29 \times \frac{1}{4}$  inches, and  $14 \times 21\frac{1}{2}$  inches; size of base, 10 feet square; height of tower, base to vane, 7 feet 6 inches: consumes about 120 gallons of oil per season.

May 7th.—Landed stores, examined the lights and buildings; found lights in good order, but the building will require a new floor,  $12\frac{7}{12}$  feet x 7 feet by 3 feet,

size two new beams.

# Description of Lighthouse at this Station.

The lighthouse is a square wooden building, painted white, with oil store combined.

The Government owns at this station, a piece of land, 30 feet square, with right of way; purchased the same from Widow Langlois. Deed passed by Mr. De Lachevrotière, Notary Public, Lotbinière.

### GRONDINES LIGHTHOUSE, NORTH SHORE.

Lat. 46° 35' 49" N.; Long. 72° 4' 12" W.

(Upper Tower, E. Trottier, Keeper; Lower Tower, J. Trottier, Keeper.)
Two fixed white catoptric lights, 1,350 yards apart. Upper tower contains two mammoth flat-wick lamps; unlipped chimneys; size of reflectors, 14½ x 5½ inches,

and 18 x 7 inches; size of glass, 34 x 31½ inches.

Lower tower contains one No. 1 flat-wick lamp, unlipped chimney and one mammoth flat wick lamp, unlipped chimney; height of tower from base to vane, 18 feet; size of lantern, 8½ feet; size of glass, 36 x 36 inches: consumes about 70 gallons of oil per season.

May 7th.—Landed stores, examined the lights and buildings, and found all in good order.

# Description of Lighthouses at this Station.

The lighthouses are two square wooden towers, with oil stores combined, and painted white.

The Government has purchased from both of the keepers of the Grondines Lighthouses, 24 feet square of land, upon which each tower is erected, with a right of way.

### CAPE CHARLES LIGHTHOUSES, SOUTH SHORE.

Lat. 46° 53' 39" N.; Long. 72° 4' 15" W.

# (F. Boisvert, Keeper.)

Two fixed white catoptric lights, eighty yards apart. Upper tower contains one flat-wick lamp, unlipped chimney; size of reflector,  $20\frac{1}{2} \times 8$  inches deep; size of glass,  $21 \times 21 \times \frac{1}{8}$ -inches.

Lower tower, contains one mammoth flat-wick lamp, unlipped chimney; size of glass, 28 x 36 inches and 28 x 34 inches; height of tower from base to vane, ; height of tower from base to centre of lamp, ; size of lantern, 4 feet 4 inches; size of gallery, 10 feet 10 inches: consumes about 110 gallons of oil per season.

The mammoth flat-wick lamp is an extra lamp put up last summer to improve the light, as it was reported by the captains of the Montreal boats as being not strong enough.

May 7th.—Landed stores, examined the lights and buildings, and found all in good order.

# Description of Lighthouses at this Station.

The lighthouses are two square wooden buildings, and painted white.

The Government pays an annual rent of \$10 for the use of the land upon which
the lighthouses are erected, with right of way, payable to the keeper, who is owner
of the land.

### ST. PIERRE DES BECQUETS LIGHTHOUSE, SOUTH SHORE.

Lat. 46° 30' 28" N.; Long. 72° 12' 30" W.

# (S. FRANCŒUR, Keeper.)

A fixed white catoptric light; two mammoth flat-wick lamps; lipped chimneys. Wooden lantern. Size of reflectors, 18 x 7 inches deep; size of glass, 27½ x 38 inches; height of tower from base to vane, 32 feet; height of tower from base to centre of lamp, 26 feet; size of lantern, 6 feet; size of platform, 12 feet; size of base, 14 feet, consumes about 70 gallons of oil per season.

May 8th.—Landed stores and inspected the lights and buildings, and found all

in good order.

# Description of Lighthouse at this Station.

The lighthouse is a square wooden building, painted white, with oil-shed combined.

The Government has acquired by purchase, from Michael William Baby, of the city of Quebec, about 25 feet square of land with right of way, for the sum of £50. Mr. T. Doucet, Notary Public. Deed of sale dated 17th June, 1864.

The Government has also acquired 12 feet square more land for lighthouse pur-

poses, from Mr, F. X. O. Méthot, proprietor of the adjoining land.

### BATISCAN LIGHTHOUSE, NORTH SHORE-LOWER TOWER.

Lat 46° 30' 16" N.; Long. 72° 14' 52" W.

# (J. Fugerés, Keeper.)

A fixed white catoptric light; one mammoth flat-wick lamp, unlipped chimneys. Wooden lantern, covered with tin. Size of reflectors,  $18 \times 7$  inches deep; size of glass,  $36 \times 36 \times \frac{1}{6}$ -inches deep; height of tower from base to vane, 12 feet; height of tower from base to centre of lamp, 7 feet; size of lantern, 6 feet; size of gallery, 12 feet square; built on a square wooden block,  $11 \times 11$  feet and 5 feet 6 inches bigh: consumes about 60 gallons of oil per season.

May 8th.—Landed stores and inspected the lights and buildings; found the lamp

and reflectors in very bad order; changed it to a mammoth flat-wick lamp.

# Description of Lighthouse at this Station.

The lighthouse is a small square wooden building, painted white, with oil-shed combined.

The Government pays an annual rent of \$6 to the keeper, who is proprietor of the land upon which the lighthouse stands.

#### BATISCAN LIGHTHOUSE, NORTH SHORE.

Lat. 46° 30' 16" N.; Long. 72° 14' 52" W.

### (J. MARCHAND, Keeper.)

A fixed white catoptric light; one mammoth flat-wick lamp, lipped chimneys. Size of reflectors, 18 x 7 inches deep; size of glass,  $36 \times 36 \times \frac{1}{3}$  inches thick; height of tower from base to vane, 36 feet; height of tower from base to centre of lamp, 32

feet; size of gallery, 12 feet; size of base, 14 feet: consumes about 50 gallons of oil

per season.

May 8th.—Landed stores, inspected the lights and buildings, and found the light-house required painting; left paint and oil, and made arrangements with Mr. Fergus to do it for the sum of \$6; also found the lamp and reflector very old; changed it to one mammoth flat-wick lamp, which will be a great improvement.

# Description of Lighthouse at this Station.

The lighthouse is a square wooden building, painted white, with oil-shed combined.

This light is situated about 222 yards from the last light.

The Government pays an annual rent of \$6 to the keeper, who is proprietor of the land upon which the lighthouse stands.

### POINT AU CITROUILLE LIGHT NORTH SHORE.

Lat. 46° 27' 12" N.; Long. 72° 16' 10" W.

# (C. BRUNEL, Keeper.)

This is a temporary light on the top of a frame to indicate the point. It is a fixed white light, with a mammoth flat-wick lamp; a tower and lantern with two lamps, and is much needed here.

It consumes about 40 gallons of oil per season.

#### CHAMPLAIN LIGHTHOUSE, NORTH SHORE.

Lat. 46° 24' 34" N.; Long. 72° 20' 32" W.

### (N. HARDY, Keeper.)

A fixed white catoptric light; two mammoth flat-wick lamps, unlipped chimneys. Size of reflectors 18 x 7 inches deep; size of glass, 36 x 30 x 1 inches; height of tower from base to vane, 20 feet; height of tower from base to centre of lamp. 15 feet: size of lantern, 8 feet: size of platform, 12 feet: size of base, 11 feet.

lamp. 15 feet; size of lantern, 8 feet; size of platform, 12 feet; size of base, 11 feet.
May 8th.—Landed stores, inspected the lights and buildings, and left three car-

penters to put up a new lighthouse, to replace the old one taken down.

# Description of Lighthouse at this Station.

The lighthouse is a small square wooden building, painted white, with oil store combined.

### CAP DE LA MADELEINE LIGHTHOUSES, NORTH SHORE.

Lat. 46° 23' 46" N.; Long. 72° 27' 18" W.

### (P. MANUEL, Keeper.)

Two fixed white catoptric lights, 190 yards apart; upper tower contains one mammoth flat wick lamp, unlipped chimney. Wooden lantern. Upper tower: Size of reflector,  $18 \times 7$  inches deep; size of glass,  $30\frac{1}{2} \times 36 \times \frac{1}{8}$  inches thick; height of tower from base to centre of lamp, 20 leet; size of lantern, 6 teet; size of gallery, 12 feet; size of base, 12 feet square.

Lower tower contains one mammoth flat-wick lamp, unlipped chimney. Wooden lantern. Size of reflector,  $18 \times 7$  inches; size of glass,  $30\frac{1}{2} \times 36$  inches; height of tower from base to vane, 12 feet; height of tower from base to centre of lamp, 7 feet; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 6 feet. These lights consume about 50 gallons of oil per season.

May 8th.—Landed stores, inspected the lights and buildings, and found all in

good order.

Description of Lighthouses at this Station.

There are two square wooden buildings, painted white, with oil store combined. The Government have acquired by purchase, a piece of land 25 feet square, for the sum of £3. 0. 0. from Mr. Joseph Moise, Denoncour. Mr. Theodore Doucet, Mon-

treal, Notary Public. Deed of sale, September 14th, 1857.

Owing to the embankment giving way this lighthouse was removed a distance further back, which brings it now on the land of Mr. Zenobé Toupin, from whom 18 x 25 feet of land, with right of way, was bought for the sum of \$30. Deed of sale made at Three Rivers, by Mr. Octave Guillett, Notary Public, dated 8th August, 1877.

### CAPE DE LA MADELEINE LIGHTHOUSES, NORTH SHORE.

Lat. 46° 23' 16" N; Long. 72° 28' 38" W.

# (J. Montplaisir, Keeper.)

Two mammoth flat-wick lamps, 235 yards apart. The upper tower contains one mammoth flat-wick lamp, unlipped chimney. Lower tower:—Wooden lantern; size of reflectors,  $18 \times 7$  inches deep; size of glass,  $35 \times 27\frac{1}{2} \times \frac{1}{8}$ -inches; height of tower, base to vane, 12 feet; height of tower, base to centre of lamp, 7 feet; size of lantern, 6 feet; size of base, 6 feet; size of gallery, 11 feet square; built on a square wooden platform, 11 feet square, 4 feet high. Upper tower contains 1 mammoth flat-wick lamp, unlipped chimney; wooden lantern; size of reflector,  $18 \times 7$  inches deep; size of glass,  $36 \times 36 \times \frac{1}{8}$ -inches; height of tower, base to vane 41 feet; height of tower, base to centre of lamp, 36 feet; size of lantern, 6 feet: consume about 100 gallons of oil per season.

May Sth.—Landed stores, and inspected the buildings and lights; the lower tower wants painting inside. The upper tower building will require a new stone foundation; the tower is to one side and the wooden posts foundation have been all

patched and are rather rotten.

# Description of Lighthouses at this Station.

The lighthouses are two square wooden buildings, painted white, with oil shed combined.

The Government pays an annual rent of \$12 to the keeper, who is proprietor of the land upon which the lighthouse stands.

# PORT ST FRANCIS LIGHTHOUSES, SOUTH SHORE.

Lat. 46° 16' 20", N.; Long. 72° 37' 15" W.

# (C. DUVAL, Keeper.)

Two fixed white catoptric lights. The upper tower contains two No. 1 flatwick lamps, unlipped chimneys; size of reflectors, 15 x 5 inches deep; size of glass,  $31\frac{1}{2} \times 20 \times \frac{1}{8}$  inch; height from base to vane, 25 feet; height from base to centre of

lamp, 19 feet 6 inches; size of lantern, 6 feet, size of base, 18 feet; platform 6 feet square, 4 feet high, painted black. Lower tower contains one flat-wick lamp, unlipped chimney; size of reflector,  $15 \times 5\frac{1}{2}$  inches deep; size of glass,  $31\frac{1}{2} \times 27 \times \frac{1}{2}$  inches deep; platform same as upper tower: consumes about 70 gallons of oil per season. These lights are about 3,240 yards a part, and are removed in winter.

May 8th.—Landed stores, inspected the lights and buildings, and found all in

good order.

Description of Lighthouses at this Station.

These lights are octagonal wooden buildings, painted white, with oil shed combined.

POINT DU LAC LIGHTHOUSE, NORTH SHORE.

Lat. 46° 16' 50" N; Long 72° 40' 22" W.

(M. PAQUIN, Keeper.)

A fixed white catoptric light; one mammoth flat-wick lamp, unlipped chimney. Size of reflector,  $18 \times 7$  inches deep; size of glass,  $26\frac{1}{2} \times 17 \times \frac{1}{8}$ -inches; height of tower from base to vane, 30 feet; height of tower from base to centre of lamp, 26 feet; size of gallery, 11 feet; size of base, 12 feet 6 inches: consumes about 70 gallons of oil per season.

May 9th.—Landed stores, inspected the light and building; found all in good

order.

Description of Lighthouse at this Station.

The lighthouse is an octagonal wooden building, painted white, with oil store combined.

The Government has acquired by purchase, from Mr. Medard Paquin, of the parish of Point du Lac, about 20 feet x 70 feet, French measure, of lands upon which the tower is erected, for the sum of £7 10s. Mr. Theodore Doucet, Notary Public. Deed of sale, dated 19th May, 1857.

NO. 3 LIGHTSHIP, LAKE ST. PETER.

Lat. 46° 15' 56" N.; Long. 72° 42' 18" W.

(AMADIE MAGNON, Keeper.)

A fixed white catoptric light; one mammoth circular-wick lamp. Size of glass 26 x 26 inches: consumes about 120 gallons of oil per season.

May 9th.—Landed stores, inspected light and ship; found the deck and covering

board in very bad order, and would recommend new ones next winter.

This vessel is removed at the end of the season of navigation, and is laid up at Sorel.

Description of Lightship.

The lightship is built of iron and painted black, with red stripe, and was put on her station for the first time in 1856.

She is 80 feet long, 20 feet beam and 10 feet depth of hold, with lantern in the centre, and is moored on the north side of the channel.

# NO. 2 LIGHTSHIP, LAKE ST. PETER.

Lat. 46° 11′ 39" N.; Long. 72° 53' 20" W.

# (HECTOR FISET, Keeper.)

A fixed white catoptric light; one mammoth circular-wick lamp. Size of glass, 26 x 26 inches and 26 x 12\frac{3}{4} inches: consumes about 120 gallons of oil per season.

May 9th.—Landed stores, and inspected the light and ship with Captain Marmen; found her in first-class order; the repairs done last winter, being well made, the vessel will last for many years.

This vessel is removed at the approach of winter and laid up at Sorel.

# Description of Lightship.

This vessel is the same size and build and appearance as the two others.

The keeper records daily the depth of water on the flats, which at night are shown by red figures on a large lantern for the purpose, and in daytime by black letters on a white board.

### NO. 1 LIGHTSHIP, LAKE ST. PETER.

Lat. 46° 9' 39" N.; Long. 72° 56' 50" W.

# (A. AUGER, Keeper.)

A fixed white catoptric light; one mammoth circular-wick lamp. Size of glass,  $26 \times 26$  inches and  $26 \times 12\frac{3}{4}$  inches; consumes about 120 gallons of oil per season May 9th.—Landed stores, examined the light and ship, and found all in good order.

### Description of Lightship.

This vessel is built the same as the others, and painted black, with red bottom, and "No. 1," in white letters, on each side.

She is also removed and laid up at Sorel at the approach of winter.

### ISLE AUX RAISINS LIGHTHOUSES, ON THE ISLAND.

North side of Island. Lat. 46° 6' 14 N., Long. 72° 57' 50" W. South side of Island. Lat. 46° 6' 0" N.; Long. 72° 58' 0" W.

# (O. LETENDRE, Keeper.)

Two fixed white catoptric lights; towers about ten acres apart. Upper tower contains two No. 1 flat-wick lamps, unlipped chimneys; wooden lantern; size of reflectors, 14 by  $4\frac{1}{2}$  inches deep; size of glass, 36 by 36 by  $\frac{1}{8}$ -inches and 36 by  $20\frac{1}{2}$  by  $\frac{1}{8}$  inches; height of tower, base to vane, 64 feet; height of tower, base to centre of lamp, 60 feet; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 22 feet. Lower tower contains one flat-wick lamp, unlipped chimneys; size of reflectors, 14 by  $4\frac{1}{2}$  inches; size of glass,  $31\frac{1}{2}$  by  $20\frac{1}{2}$  by  $\frac{1}{3}$  inch; height of tower, base to vane, 20 feet; height of tower base to centre of lamp, 16 feet; size of lantern, 5 feet; size of gallery, 11 feet; size of base, 9 feet; it is taken away in the fall on account of the ice. They consume about 100 gallons of oil per season.

May 9th.—Landed stores, inspected lights and buildings; the upper tower will require two coats of paint and a good deal of the clap-boarding re-nailed; all the rest

is in good order.

# Description of Lighthouses at this Station.

The lighthouses are two square wooden buildings, painted white, with oil stores combined, erected on piers.

The Government owns 17½ acres of land, purchased from Mr. Joseph Pallus and Mr. Oliver Pallus, for lighthouse purposes.

# ISLE A LA PIERRE LIGHTHOUSE, POINT OF THE ISLAND.

Lat, 46° 5' 54" N.; Long. 72° 59' 40" W.

# (J. LAMOUREAUX, Keeper.)

A fixed white catoptric light; two No. 1 flat-wick lamps, unlipped chimneys. Size of reflector,  $14 \times 4\frac{1}{2}$  inches deep. Wooden lantern. Size of glass,  $28 \times 36 \times \frac{1}{3}$  inches,  $30 \times 27\frac{3}{4} \times \frac{1}{3}$  inches; height of tower from base to vane. 33 feet; height of tower from base to centre of lamp, 26 feet; size of lantern, 6 feet; size of gallery, 9 feet 6 inches; size of base, 14 feet: consumes about 60 gallon of oil per season.

May 9th.—Landed stores, inspected the light and buildings, and found all in good order.

Description of Lighthouses at this Station.

They are two square wooden buildings, painted white, with oil store combined,

built on a wooden block, 20 feet square by 14 feet high, and painted black.

The Department owns 20 arpents of land covered with trees, which was acquired to protect the buildings from being carried away in the spring when the ice breaks up and water is very high.

### ISLE DE GRACE LIGHTHOUSE, ON THE ISLAND.

Lat. 46° 4' 13" N.; Long. 72° 2' 34" W.

# (EDWARD PAUL, Keeper.)

A fixed white catoptric light; two No. 1 flat-wick lamps, unlipped chimneys. Wooden lantern. Size of reflectors,  $14 \times 4\frac{1}{2}$  inches deep; size of glass,  $25 \times 19 \times \frac{1}{8}$  inches; height of tower from base to vane, 24 feet; height of tower from base to centre of lamp, 18 feet 6 inches; size of lantern, 5 feet; size of gallery, 10 feet; size of base, 10 feet: consumes about 60 gallons of oil per season.

May 9th.—Landed stores, inspected the lights and buildings; found all in good

order.

### Description of Lighthouse at this Station.

The lighthouse is a small octagonal wooden building, painted white, with oil store combined.

The Government has acquired by purchase from the Rev. Hillaire Millior, Curé, a piece of land 60 feet square, French measure, for the sum of \$30. Mr. Theodore Doucet, Notary Public. Deed of sale, dated 2nd September, 1871.

#### SOREL HARBOUR LIGHT.

Lat. 469 2' 30" N.; Long. 73° 7' 18" W.

Two red lights on the Richelieu Company's Wharf to indicate the harbour, are maintained by the Company at an allowance of \$85 per season.

Upper tower contains one mammoth flat-wick lamp, lipped chimney. Size of reflector, 12 x 2 inches deep glass; size of upright post at bottom, 8 x 4½ inches.

Lower tower, same as upper tower with ruby glasses 13½ inches wide by 24

inches high.

May 9th.—Landed and inspected the lights and buildings. The lower tower light is built on a frame work with small lantern on top, it is now old; the upper tower lantern is on top of a diagonal frame which is also very old, and the lantern worn out and both will require to be renewed this winter.

### LAVALTRIE LIGHTHOUSE, SOUTH SIDE OF THE ISLAND.

Lat. 45° 52' 55" N.; Long. 75° 16' 0" W.

# (D. GIGUERE, Keeper.)

A fixed white catoptric light. Upper tower contains two mammoth flat-wick lamps, lipped chimneys; size of reflectors, 15 x 4½, and 20 x 8½ inches deep; size of glass,  $20\frac{1}{2}$  x 25 x  $\frac{1}{8}$  inches; height of tower from base to vane, 28 feet; height of tower from base to centre of lamp, 25 feet; size of lantern, 5 feet 6 inches; size of gallery, 9 feet; size of base, 13 feet; built on a block 18 feet square by 9 feet high, painted black.

The lower tower contains two mammoth flat-wick lamps, lipped chimneys. Size of reflectors, 16 x  $5\frac{1}{2}$  inches deep; size of glass, 21 x  $27\frac{3}{4}$  x  $\frac{1}{8}$ -inches; height of tower from base to vane, 10 feet; height of tower from base to centre of lamp, 5 feet 8 inches; size of lantern, 6 feet; size of gallery, 13 feet; size of base, 6 feet:

consume about 120 gallons of oil per season.

May 10th.—Landed stores, and inspected the lights and buildings. The upper tower will require renewing this winter. Captain Marmen told the keeper to find out the cost of a new one, and let the Department know; the lower tower is in good order.

# Description of Lighthouses at this Station.

The lighthouses are small square towers, built of wood, painted white, with oil store combined.

The Government has acquired by purchase from Mr. Albert Lesiege dit Lafontaine, a piece of land, 30 square feet, for the sum of \$50. Mr. Theodore Doucet, Notary Public. Deed of sale, dated May 5th, 1859.

A ground rent of \$30 per annum is also paid to Mr. G. De Lanondiére, for the

other light.

### CONTRECŒUR LIGHTHOUSES, SOUTH SHORE.

Lat. 45° 49' 52" N; Long. 73° 17' 0" W.]

(Lower Tower, F. Lacroix, Keeper; —Upper Tower, J. Gervais, Keeper.)

Fixed white catoptric lights; lower tower contains one flat-wick lamp, unlipped chimney; size of reflector,  $14 \times 4\frac{1}{2}$  inches deep; size of glass,  $34 \times 25 \times \frac{1}{8}$  inches; height of tower, base to vane, 13 feet; height of tower, base to centre of lamp, 6 feet 6inches; size of lantern, 6 feet; size of gallery, none; size of base, 6 feet. This light is built on a square wooden frame, 14 feet square, 5 feet high.

The upper tower same as lower tower. Height tower, base to vane, 41 feet; height of tower, base to centre of lamp, 35 feet; size of lantern, 5 feet 9 inches; size of gallery, 17 feet square; size of base, 18 feet 6 inches. These lights are about 1,500 yards apart: consume about 50 gallons of oil per season.

May 10th.—Landed stores, inspected lights &c., and found all in good order.

The Government acquired by purchase a piece of land 30 x 40 feet from Mr. F. Lacroix, for the sum of £6 15s. Mr. Theodore Doucet, Notary Public. Deed of sale, dated May 7th, 1858.

### ISLE AUX PRUNES LIGHTHOUSE, ON THE ISLAND.

Lat. 45° 46' 50" N; Long. 73° 22' 30" W.

# (J. B. LAROSE, Keeper.)

A fixed white catoptric light; two No. 1 flat-wick lamps, unlipped chimneys. Size of reflectors,  $14 \times 4\frac{1}{3}$ , and  $15 \times 5$  inches deep; size of glass,  $32 \times 20 \times \frac{1}{4}$  inches; height of tower, base to vane, 27 feet; height of tower, base to centre of lamp, 23 feet 6 inches; size of lantern, 5 feet; size of gallery, 12 feet; size of base, 12 feet 6 inches: consumes about 25 gallons of oil per season.

May 10th.—Landed stores, inspected lights and buildings, and found that this

tower will require renewing next spring as the present one is not reliable.

# Description of Lighthouse at this Station.

The lighthouse is a small square wooden building, painted white, with oil-stere

The Government has acquired, by purchase from Mr. Olivier Chagnon dit Larose, a piece of land 50 feet square, for the sum of \$60. Mr. Theodore Doucet, Notary Public. Deed of sale, dated February 20th, 1866,

### REPENTIONY LIGHTHOUSE, NORTH SHORE.

Lat. 45° 45' 2" N; Long. 73° 26' 8" W.

# (G. RIVET, Keeper.)

A fixed white catoptric light; one No. 1 flat-wick lamp, unlipped chimney. Woodern lantern. Size of reflectors,  $14 \times 4\frac{1}{2}$  inches deep; size of glass,  $36 \times 36 \times \frac{1}{2}$ inches; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 14 feet; height of tower, base to vane, 35 feet; height oftower, base to centre of lamp, 30 feet: consumes about 25 gallons of oil per season.

May 11th.—Landed stores, inspected the lights &c.; found all in good order, with exception of the foundation of tower; it is built on wooden posts 3 feet high,

and they always lift with the frost; a stone foundation is required here.

# Description of Lighthouse at this Station.

The lighthouse is a square wooden building, painted white, with oil store com-

The Government purchased from the proprietor, Mr. C. Rivet, the lighthouse keeper, a piece of land 40 feet square, on which the lighthouse is built.

### REPENTIGNY LIGHTHOUSE, 170 YARDS FROM THE OTHER TOWER.

Lat. 45° 45' 2" N.; Long. 73° 26' 8" W.

# (J. B. LACHAPELLE, Keeper.)

This light is similar in every respect to the other light. Size of lantern, 6 feet; size of gallery, 11 feet 6 inches; size of base, 6 feet; height of tower, base to vane, 11 feet; height of tower, base to centre of lamp, 6 feet 6 inches: consumes about 25 gallons of oil per season.

May 11th.—Land stores, inspected lights &c.; found all in good order.

# Description of Lighthouse at this Station.

The lighthouse is a small square wooden building, painted white with oil-store combined.

The Government acquired, by purchase from Mr. Joseph Grenier, a piece of land 24 feet square, for lighthouse purposes.

### ISLE À LA BAGUE LIGHTHOUSE, NORTH SIDE OF THE ISLET.

Lat. 45° 44' 14" N.; Long. 73° 26' 15" W.

# (J. ETHIER, Keeper.)

A fixed white catoptric light; two No. 1 flat-wick lamps, unlipped chimneys. Size of reflectors,  $14 \times 4\frac{1}{2}$  inches deep; size of glass, ; height of tower from base to vane, 18 feet; height of tower from base to centre of lamp, 15 feet; size of lantern, 5 feet; size of gallery, 12 feet; size of base, 12 feet six inches: consumes about 50 gallons of oil per season.

May 11th.—Landed stores, inspected the lights, &c., and found all in good

order

This light is removed at the end of the season of navigation.

# Description of Lighthouse at this Station.

The lighthouse is an octagonal building of wood, painted white, with oil-store combined.

The Government has purchased the whole of the island from Mr. Henry O. Andrews, for the sum of £50. Mr. Theodore Doucet, Notary Public. Deed of sale. dated 18th February, 1848. Some necessary repairs to wharf were attended to.

# ISLE STE. THÉRÈSE LIGHTHOUSES, ON THE ISLAND.

Lat. 45° 41' 22" N.; Long. 73° 27' 40" W.

# (THEO. BRADEUR, Keeper.)

Fixed white catoptric lights; two towers, 220 yards apart, with three mammoth flat-wick lamps, unlipped chimneys. Size of reflectors,  $18 \times 7$  inches deep; size of glass,  $35 \times 35 \times \frac{1}{3}$ -inches.

Lower tower.—Wooden lantern. Height of tower from base to vane, 22 feet; height of tower from base to centre of lamp, 15 feet 6 inches; size of lantern, 5 feet; size of gallery, 10 feet; size of base, 5 feet, and is built on a wooden platform, 9 feet high and 10 feet square.

Upper tower.—Height from base to vane, 38 feet; height of tower from base to centre of lamp, 34 feet 8 inches; size of lantern, 8 feet 6 inches; size of gallery, 17 feet; size of base, 18 feet 6 inches, and built on a square wooden block, painted black: consume about 150 gallons of oil per season.

May 11th.—Landed stores, inspected lights, &c., and found all in good order. As

the two lanterns in the lower tower wanted painting, left paint for that purpose.

# Description of Lighthouses at this Station.

The lighthouses are two square wooden buildings, painted white, with oil-stores combined.

The Government owns a piece of land of about 24 feet square at each of the two towers, purchased from Mr. Massue and Mr. Bradeur.

### ISLE STE THÉRÈSE LIGHTHOUSE, NORTH SIDE OF THE ISLAND.

Lat. o, N.; Long. o, W.

# (SAMUEL REEVES, Keeper.)

A fixed white catoptric light; one mammoth flat-wick lamp, unlipped chimney. Size of reflector, 18 x 7 inches doep; size of glass, 24½ x 36 x ½-inches; height of tower from base to vane, 10 feet; height of tower from base to centre of lamp, 5 feet 6 inches; size of lantern, 5 feet; size of base, 5 feet: consumes about 30 gallons of oil per season.

May 11th.—Landed stores, inspected the lights, &c., and found all in good order.

# Description of Lighthouse at this Station.

The lighthouse is a small wooden building, painted white, with oil-store combined. There is also a small square wooden building near to it, for a dwelling-house for the keeper.

The Government occupies a piece of land about 24 feet square, which belongs to the heirs of Mr. Rivet, and cannot be sold on account of the absence of some of them.

### POINTE AUX TREMBLES LIGHTHOUSE, NORTH SHORE.

Lat 45° 38' 26" N.; Long. 73° 29' 20" W.

### (Antoine Lamoureux, Keeper.)

Two fixed white catoptric lights, 600 yards apart; two mammoth flat-wick

lampe. unlipped chimneys.

Upper tower.—Size of reflectors, 16 x 6 inches deep; size of glass, 33 x 30 x  $\frac{1}{4}$ inches; height of tower from base to vane, 54 feet; height of tower from base to centre of lamp, 50 feet 6 inches; size of lantern, 6 feet; size of gallery, 12 feet; size of base, 20 feet 6 inches.

Lower tower.—Size of reflectors, 10 x  $5\frac{1}{2}$  inches deep; size of glass, 36 x 33 x  $\frac{1}{4}$ inches; height of tower from base to vane, 26 feet; height of tower from base to centre of lamp, 22 feet; size of lantern, 6 feet; size of gallery, 12 feet; size of base, Il feet: con-ume about 100 gallons of oil per season.

May 11th.—Landed stores, inspected lights, &c., and found all in good

order.

# Description of Lighthouses at this Station.

The lighthouses are octagonal wooden buildings, painted white, with oil-stores-combined.

The Government acquired, by purchase from Mr. Antoine Lamoureux, a piece of land, 25 square feet, for the sum of £25. Mr. Theodore Doucet, Notary Public. Deed of sale, dated August 31st, 1867. Also, from Mr. Francois Beaudoin, a piece of land, 30 feet square, for the sum of \$30. Mr. A. Lecours, Notary Public. Deed of sale, dated May 30th, 1859.

#### MONTREAL HARBOUR LIGHTHOUSES.

Lat. 45° 30' 22" N.; Long. 73° 33' 14" W.

(WM. JEFFS, Keeper.)

Two fixed red lights, 73 yards apart; one 38 feet and the other 29 feet above the water's edge; they indicate the deepest channel to and from the Harbour. Two mammoth flat-wick lamps, lipped chimneys. Upper tower—Size of glass, 32 x 23\frac{3}{2} inches; size of reflector, 13 x 7 inches deep. Lower tower—Size of reflector, 18 x 7 inches deep; size of glass, 25\frac{3}{8} x 17\frac{1}{2} inches; height of towers, base to vane, 29 feet; base to centre of lamp, 25 feet; size of lantern, 5 feet 6 inches; size of gallery, 10 feet; size of base, 16 feet: they consume about 100 gallons of oil per season.

May 11th.—Landed stores, inspected the lights, &c., and found that new lamps were wanted, and had them put up; the buildings are very old, and I would recommend that new ones be put up next spring. I would also suggest that the new ones should be built ten or twelve feet higher than the old ones, as when there is a large ship at the wharf the light can hardly be seen.

# Description of Lighthouses at this Station.

The lighthouses are two octagonal wooden buildings, painted white, with oil stores combined.

# LIGHTHOUSES BETWEEN ST. JOHNS, PROVINCE OF QUEBEC, AND THE BOUNDARY LINE, LAKE CHAMPLAIN.

ASH AND BLOODY ISLAND LIGHTS.

Lat. 45° 1' 20" N.; Long. 73° 25' 0" W. Lat. 45° 1' 0" N.; Long. 73° 24' 50" W.

# (J. W. HAMMOND, Keeper.)

Ash and Bloody Island Range Lights are about three-quarters of a mile apart. They are placed in range with the channel above the Islands, and the side lights are to show the channel past the west side of both Islands.

Ash Island Lighthouse is a square framed tower, with small dwelling attached,

and painted white.

The lights are about 44 feet above water; the main one showing in the direction of the low lights on Bloody Island. The lights on Bloody Island are in a small white building, on a timber pier, about 14 feet above water; the main light shewing up stream in the direction of the channel. There are two flat-wick lamps and two reflectors in each building.

#### LACOLLE LIGHTHOUSE.

# (W. H. VANVLICK, Keeper.)

Two towers forming range lights, leading between Lacolle and St. Valentine. Upper tower contains one mammoth flat-wick lamp; 15-inch reflector; size of glass,  $32 \times 36 \times \frac{1}{8}$  inches. The lower tower contains two mammoth lamps; 15-inch reflectors; size of glass,  $36 \times 30 \times \frac{1}{8}$  inches. A side-lamp indicates these points to passing vessels before they come into range.

#### ST. VALENTINE LIGHTHOUSE.

### (P. MARTIN, Keeper.)

Two towers, eleven and a half miles from St. Johns, and six and a half miles from north Halfway Point. These are range lights, leading across the river at the foot of Isle aux Noir. The upper tower contains one mammoth flat-wick lamp, 16 inch reflectors; size of glass,  $36 \times 20 \times \frac{1}{8}$  inches. The lower tower contains two-mammoth flat-wick lamps; 16-wick reflectors; size of glass,  $32 \times 36 \times \frac{1}{4}$ -inches.

#### NORTH OF HALFWAY POINT LIGHTHOUSES.

# (D. MENARD, Keeper.)

Two towers on the south side of the river, five miles from St. Johns. These are range lights, leading between Halfway Point and Ile aux Noir. The upper tower contains one mammoth flat-wick lamp, 20-inch reflector; size of glass, 36 x 36 x \frac{1}{4} inches. Lower tower contains two mammoth flat-wick lamps; 16-inch reflectors; size of glass, 32 x 36 x \frac{1}{4} inches.

May 11th.—Landed all the stores for these lights at Sorel to be forwarded.

# INSPECTING ENGINEERS REPORT 1877.

Left Quebec September 18th, at 11.45 a.m., arrived at Green Island, at 11.30 p.m.; landed the powder, and examined the lights and fog-gun, and found all in good order, and left at 12.45 a.m., for

### BICQUET LIGHTHOUSE.

And arrived September 19th, at 4.15 a.m.; landed supplies and powder-examined the lights and fog-gun, and found them in good order, and left at 6.15 a.m.

### FATHER POINT LIGHTHOUSE.

Arrived at 8 a.m.; landed supplies, also a canoe for assisting shipwrecked crews; placed it in charge of Mr. Régis Chamard; examined the lights and fog-gun. Thegun will require to be revented this fall.

#### POINT DES MONTS.

Arrived at 1 a.m., September 20th; landed stores and supplies, examined the lights, fog-gun, and provision depôt, and found all in good order, with full supplies on hand.

# SPECIAL REPORT.

SIR,—According to your instructions to enquire into the cause of the powder magazine leaking, and the powder becoming damp, I find the mortar in the joints getting loose. I told the keeper to have these cemented, and to put a ventilator in the top which will prevent the damp.

I am, Sir, Yours &c.,

(Signed)

WILLIAM BARBOUB, Inspecting Engineer.

To J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

### SEVEN ISLANDS LIGHTHOUSE.

September 20th.—Arrived at 6 p.m.; landed supplies, examined the lights and new derrick; found all in good order. The repairs made to the dwelling-house this spring well finished. The keeper will require to have a horse or ox to haul his fire-wood and stores, there is plenty of hay to feed one, on the Island. Left at 8.30 p.m. for

### WEST POINT, ANTICOSTI LIGHTHOUSE AND FOG-GUN STATION.

Arrived September 21st., at 4 a.m.; landed supplies &c., examined the lights, gun and provision depôt, and found all in good order, with full supplies on hand. Left at 9.30 a.m. for

### SOUTH WEST POINT, ANTICOSTI LIGHTHOUSE.

September 21st.—Arrived at 3.45 p.m.; landed stores, &c., examined the lights, revolving gear, and provision depôt, and found all in good order, with full supplies on hand.

### SOUTH POINT, ANTICOSTI.

September 22nd.—Left South West Point at 5 a.m., for this Station, met strong

winds; could not land; came to anchor.

September 24th.—7.30 p.m., arrived and landed stores &c.; examined the light, revolving gear, and engines, and boiler of steam fog-whistle, also the provision depôt, and found all in good order, with full supplies on hand, except some of the clothes which the keeper will supply this fall. The wharf is not commenced yet; there is a small piece of the beach cleared for the foundation, and the keeper says he has all the wood for it ready. Left at 3 a.m. for

#### HEATH POINT LIGHTHOUSE.

September 25th.—Arrived at 3 p.m.; landed all supplies, examined the lights and provision depôt, and found all in good order, with full quantities on hand. Landed the new storehouse to replace the old one blown away last fall; left at 7.45 a.m. for

#### CAPE ROSIER.

Arrived at 4 p.m.; landed stores and provisions, also two carpenters, one mason, and one painter, to make necessary repairs to lighthouse, dwelling-house, and powder magazine; examined the lights and fog-gun, and found all in good order; left at 6.30 p.m., for

#### GASPE HARBOUR.

September 26th.—Arrived at 7 a.m.; took on board 140 tons coals, also water, and left at 8 a.m. September 28th, for Cape Gaspe; arrived at 10 a.m.; landed stores, examined the lights, and engines and boiler of steam fog-whistle; found them all in good order; left at 2 a.m. for

#### BIRD BOCKS.

September 29th.—Blowing a gale and heavy sea running; could not make the Bird Rocks; ran for

#### POINT RICH.

October 3.— Landed at 7.30 a.m.; landed stores and provisions and new Neptune fog horn, and five men to put up the building for fog-horn; examined the lights and revolving gear, and found all in good order. Left at 10 p.m. for

#### GREENLY ISLAND.

October 4th.—Arrived at 4 a.m.; landed all the stores and 100 barrels of coal, and Mr. Turgeon, master carpenter; gave him the plans and specifications to thoroughly examine the lighthouse and dwelling under construction until I would return from Belle Isle. Left at 12.30 p.m. for

#### FORTEAU.

October 4th.—Arrived at 2 p.m.; landed stores, examined the lights and fog gun, and found all in good order. Left at 4 p.m. for head of bay, for shelter. Arrived at

### C APE NORMAN.

October 7th.—11 a.m.; landed stores and provisions, examined the lights and revolving gear, and found all in good order. Left at 1.30 p.m., and arrived at 3.30 p.m. at

#### BELLE ISLE.

Landed stores and provisions, and examined the lights, fog-horn and provision depôt, and found all in good order. Delivered new supply of provisions for depôt; the old ones were four years there and not serviceable. Left there at 9:30 p.m. on 7th October for Greenly Island; arrived at 6.30 a.m. on 8th October.

### SPECIAL REPORT.

#### GREENLY ISLAND.

SIR,—According to your instructions to thoroughly examine the building of the new lighthouse and dwelling so far as finished, I found what was then done according to the plans and specifications, good work, and well finished. The lantern was not yet put up, and several other things not finished; as far as I can judge, it will not be finished and ready for putting the light in operation before the 25th July, 1878. I also asked the contractor about it, and he was of the same opinion as myself. The height of this light, from high-water mark to base, will be 50 feet; the size of the fog-whistle house will be 25 feet long and 25 feet wide; height of post, 13 feet; base to vane, 26 feet, with coal shed at end of building, 26 by 13 feet; bevelled roof, upper end 13 by 8 feet, with four windows; length of pipes from lake to whistle house, 450 feet; will require a tank 12 feet square and 14 feet deep, built of 3-inch deals; also 70 feet of pipes from tank to engine. A store shed at landing, to put the supplies into when the steamer arrives, is needed, a3 it is about three-quarters of a mile to the lighthouse—say size, 12 by 14 feet.

I am, Sir, Yours &c.,

(Signed)

WILLIAM BARBOUR.

Inspecting Engineer.

J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

#### POINT RICH LIGHTHOUSE.

October 8th.—Arrived at 1.30 p.m.; found the carpenters had not finished; sent three more men on shore to assist them.

October 10th.—All finished; instructed the keeper thoroughly how to work the machinery of the automatic fog-horn, put in operation 10th October; to be blown during fogs and snowstorms, 8 seconds blast, 10 minutes silent; at 2 p.m. tested the horn steamed, with patent log, north-west (dead calm); heard very lightly at two miles off. Left at 3 p.m., and arrived at 12:14 p.m. at

#### CAPE BAY.

October 11th.—Landed stores and supplies; examined the lights, revolving gear and fog-horn, and found all in good order; the keeper reported the horn to work well; tested it, and found it to sound well. Gave the keeper orders to have the old one ready in the spring to be taken away. Left at 11 p.m. for

#### ETANG DU NORD.

October 12th —Arrived at 8 a.m. at Cape Mull; went over to lighthouse, put on new whistle bell; tested it; found it to sound well, the old one being too thin and full of blown holes, and not round. Examined the lights and revolving gear, and found all in good order.

October 14th.—Blowing a gale; landed stores. October 16th.—Arrived at Pleasant Bay.

#### AMHERST ISLAND LIGHTHOUSE.

At 3 p.m. Landed stores and supplies, and went over to the lighthouse; examined the light and revolving gear, and found all in good order; was left on shore with seven men for three days; could not get on board; blowing a gale. Left at 8 a.m., and arrived at

#### ENTRY ISLAND LIGHTHOUSE.

October 19th.—9 a.m., landed stores and provisions; examined the lights, and found them all in good order. Left at noon for

#### BIRD ROCKS.

Arrived at 4 p.m.; could not land on account of weather; went over to Brian Island at

8 p.m. for shelter.

October 22nd.—Reached Bird Rocks at 10 p.m., after nine days detention from gales and rough sea; after five trials succeeded with a great deal of trouble; got our small boat smashed and all the provisions and stores more or less wet; just had time to finish with the exception of the provisions for the depot, which we could not land; the old provisions will do for this season. It is my opinion that all the stores and provisions could be taken down in the spring trip, and landed when the weather is fine, which would be a great saving of morey, and risk of losing the steamer, as there is no shelter around the Magdalen Islands in the fall during some heavy gales. I think that there could be a small boat hired at Brian Island to make trips to Bird Rocks, on fine days, say about 15th September, and another about the 15th October, to take over all the vegetables and fresh meat that the keeper wants, as there is plenty on the island and very cheap.

Copy of letter sent to keeper of Bird Rocks Lighthouse.

East Point Magdalen Islands, 21st October, 1877.

Sir,—Owing to the great detention and expense attending Steamship Napoleon III this fall when supplying your Station, I think it would be advisable for you next spring to send to Quebec in time for the steamers first trip for all the stores and provisions that you would require for the year, as it is possible the Department will arrange for the steamer to make only one trip to the Bird Rocks, and it is likely they will make arrangements with some person on Brian Island to make two visits in the fall to the Bird Rocks, to take what vegetables and fresh meat you may require, also letters, say first visit about the 15th September, second visit about the 15th October.

I am, Sir, Yours, &c.,

(Signed)

J. U. GREGORY, per Wm. BARBOUR.

To Mr. Peter Whalen, Keeper of Bird Rocks Lighthouse. October 22nd.—Left at 2.30 a.m.; arrived at Gaspé; took on board water and 93-tons of coal.

October 24th.—Left at 1 p.m.; arrived at Cape Rosier; went on shore, examined the new work that had been done there by the men left there on the down trip. I found the work to be well finished; took all the men and tools on board. Left at 5 p.m., and arrived at Quebec the 26th October, at 9 a.m.

(Signed)

WM. BARBOUR,

Inspecting Engineer.

### SPECIAL REPORT.

QUEBEC, 14th September, 1877.

SIR,—According to your instructions I went up to Cap a la Madeleine to examine-the lights, as complaints had been made by captains and pilots; I found that the reflectors of two lights of the lower tower were old and required renewing. I therefore replaced the two No. 1 flat-wick lamps by two mammoth flat-wick lamps. I visited the upper tower and found it in good order, and returned to Quebec Thursday morning.

I am, Sir, Yours, &c.,

(Signed)

JEAN NADEAU.

J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

# SPECIAL REPORT.

QUEBEC, 5th October, 1877.

Sir,—I went, according to orders received, to Champlain, as complaints had been made that the lights were not showing well. I found that the reflectors were old and required changing. I therefore replaced the two mammoth flat-wick lamps with two new ones of 18 inches. I tested them and found them working well.

I am, Sir, Yours, &c.,

(Signed) JEAN NADEAU.

J. U. GREGORY, Esq., Agent, Department Marine and Fisheries, Quebec.

# LOG OF DOMINION STEAMSHIP "NAPOLEON III," 1877.

August 4th.—Alongside of Department wharf, cleaning, coaling and painting the steamship, and preparing for the fall trip to the lighthouses in the Gulf of St. Lawnence, and remained alongside of wharf until 25th.

August 25th.—I received orders to proceed down the river to lay a chequered

buoy below Pillars

August 26th.—Left Quebec at noon, and replaced the buoy at 5.45 p.m.; arrived back at 10 a.m., 27th August.

August 28th to September 17th. At wharf coaling and loading for fall trip. September 18th.—Left Quebec at noon for lighthouses; arrived at Green Island,

11.30 p.m. and landed supplies.

September 19th.—Left at 12.30 a.m., and arrived at Bic at 5 a.m.; landed supplies and left at 6.30 a.m.; arrived at Father Point at 8 a.m.; landed supplies and left at 6 p.m. for Pt. des Monts; anchored there

September 20th, 1 a.m.—Landed supplies, with much trouble, on account of heavy surf, and left at 11 a.m. for Seven Islands, and arrived at 6 p.m.; landed supplies and

left at 8 p.m.

September 21st.—Anchored at 6 a.m. at West Point of Anticosti; landed supplies and left at 9.30 a.m. for South-West Point, and anchored at 3 p.m.; landed supplies.

September 22nd.—Left there for South Point at 3 a.m.; stopped engines; weather foggy; at 5 a.m. weather clearing; proceeded on course at 10 a.m.; blowing a gale from N.N.E.; anchored 9 miles above the South Point; blowing a gale, and raining

September 23rd.—Left at 4 a.m., as we could not land at the South Point; went to East Point; anchored there at 2 p.m.; landed supplies with trouble, on account of

heavy sea; finished landing at midnight.

September 24th.—Left at 8 a.m., and returned to South Point; arrived there at 11 a.m.; impossible to land; had to wait until 7.30 p.m.; wind moderated, and began to

land supplies.

September 25th.—Finished at 3 a.m.; left for Cape Rosier at 7 a.m.; about two miles below Pavillion River saw a ship ashore; went to see if assistance was wanted; found her to be the bark "Cameo;" captain asked to be taken across to Gaspé, with his crew, as his vessel was a complete wreck; took captain and crew on board and left for Cape Rosier at 9 a.m., and arrived there at 3.30 p.m.; landed supplies and left at 7 p.m. for Gasré Basin.

September 26th.—Alongside of wharf at 7 a.m.; landed captain and crew; began

taking in coal and supply of fresh water.

September 27th.—Coaling at wharf. September 28th.—Finished coaling and left at 8 a.m. for Gaspé shiphead; anchored there at 10 a.m.; landed supplies; weather unsettled, rain and cloudy; went and

anchored at Douglas Town, awaiting moderate weather.

September 29.—At 2 a.m. weather clearing up; left for Bird Rocks at 8 a.m.; blowing a gale from north-west; impossible to land there; shifted the course to go down to the Straits; at 2 p.m. still blowing a gale; at 10 p.m. blowing very strong; pnt engines to half speed.

September 30th.—At 4 a.m.; weather moderate; ship at full speed; arrived at 6 p.m. at Point Rich; impossible to land; went and anchored below the Point at 11

p.m.; blowing hard from the westward.

October 1st.—Blowing very strong from west; obliged to go to Port Sanders for shelter; blowing a heavy gale, both anchors down; anchored there at 11 a.m.; at 11 p.m. wind moderated.

October 2nd.—Weather clear and fine, but too much sea on to go and land at the

October 3rd.—Left Port Sanders at 6 a.m. to go and try to land; anchored at Point Rich at 7 a.m.; began landing, with much trouble, all supplies; finished landing at 9 p.m.; left at 10 p.m. for Greenly Island.

October 4th.—Anchored there at 6 a.m.; landed supplies; left at 12:30 p.m. for Forteau; arrived at 2.15 p.m.; landed supplies; finished at 6 p.m.; blowing fresh

from westward: laid there all night.

October 5th.—Left at 6 a.m. for Cape Norman; when outside found wind too strong, went and brought up in L'Anse a l'Eau Bay; blowing very fresh, foggy and

October 6th.—Still at anchor in bay; foggy, raining and blowing, and remained

there all day; thick fog.

October 7th.—At 5 a.m. weather fine, light wind; left for Cape Norman; arrived at 10.15 a.m.; landed supplies; left at 1 p.m. for Belle Isle; arrived at 3 p.m.; landed supplies; left at 7 p.m. for Greenly Island.

October 8th—Arrived there at 6 a.m.; landed some coal; left at 9 a.m. for Point Rich, and arrived at 1 p.m.; as carpenter's work was not finished, went into harbour

and waited for them.

October 9th.—Still at anchor, weather fine; at 10 a.m., anchored at Point Rich.
October 10th—Weather fine; at 1 p.m. carpenters came on board with Mr.
Barbour, and we left immediately for Cape Ray.

October 11th.—Arrived at Čape Ray at 12 noon; landed supplies; finished at 3 p.m.; weather unsettled; laid there until 11 p.m.; left for Bird Rocks; weather

clear.

October 12th.—At 2 a.m. strong south-east wind; at a.m. passed Bird Rocks, impossible to land; went and tried to anchor at Bryant Island, found it impossible on account of gale; went to Madeleine Island, anchored at Greenstone Island; still blowing a gale; at 5 p.m. let go second anchor; raining and foggy, blew hard all night.

October 13th.—At 6 a.m. still blowing hard; at 4 p.m. wind shifted to E.N.E.;

had to leave and go to Amherst Island for shelter.

October 14th.—At 6 a.m., impossible to land at Amherst, left and went to Pleasant Bay; anchored at Cape Mull; surf too heavy to land; at 12 noon landed Mr. Barbour with much trouble.

October 15th.—Still blowing fresh; landed supplies with difficulty; blowing

hard all night.

October 16th.—Still blowing; at 1 p.m. left to go to Amherst to land, if possible; anchored there at 2.30; landed Mr. Barbour and supplies with munh trouble; at 8 p.m., blowing a gale; boat could not return to ship; at both anchors all night.

October 17th.—At 6 a.m. was obliged to leave for Cape Mull for shelter

anchored with both anchors; blowing a regular gale and continued all day.

October 18th.—At 6 a.m. both anchors down, still blowing hard; at 6 p,m.

weather moderate, one anchor down.

October 19th.—6.30 a.m weather fine; left for Amherst at 7.30; Mr. Barbour and boat came back, and we left for Entry Island and anchored there at 8 a.m.; at 12 a.m., light wind, weather fine, left for Bird Rocks; arrived at 4.30 p.m.; tried to land but found it impossible: anchored, waiting for a chance; at 7.30 p.m. had to leave on account of wind; went over and anchored at Bryan Island at 9 p.m.

October 20th.—Strong winds; still at anchor, waiting for a chance.

October 21st.—Wind moderated at 1 a.m. left for Bird Rocks at 3 a.m.; anchored there, and sent boat ashore to see if we could land supplies, but found it impossible to do so; waited until daylight for a chance; at 4.30, the wind increasing, had to leave and return to Bryan Island, and anchored there at 7 a.m.; at 9 a.m., wind increasing, had to leave for east point of Magdalen Islands for shelter, and anchored there at 12 noon; at 6 p.m., wind moderated, weather fine, left for Bird Rocks; anchored there at 8 p.m., but could not land.

October 22nd.—At I a.m. began landing supplies with much trouble; on landing the last load stove in the boat; finished landing at 2.30 a.m.; left for Gaspé at 4 a.m.;

arrived there at 5 p.m.

October 23rd.—Began coaling at 7 a.m.

October 24th.—Coaling until 1 p.m., when we left for Cape Rosier; anchored there and took on board the carpenters, and left at 4.30 p.m. for Quebec.

October 26th.—Arrived at Quebec at 9.30 a.m.; came alongside of Queen's Whart.

October 27th.—At wharf discharging returned lighthouse supplies.

October 28th to November 11th. At wharf cleaning ship.

November 12th.—Received orders from Mr. Gregory to go and bring Captain

Connell's body, and the lightship, up to Quebec, and left at 4.30 p.m.

November 13th.—Arrived at Green Island at 2.30 p.m., landed some powder and left at 3 p.m., and at 5 p.m. spoke Government Steamship "Newfield," nine miles

above Bic, who wanted a pilot. No pilots at hand; I gave him my second mate to pilot him up, arrived at Bic 7.30 p.m.; landed some powder, and left at 8 p.m. to proceed downward for lightship.

November 14th.—Arrived at River Blanche at 1 p.m.; took the lightship in tow

with Captain Connell's body on board and left for Quebec.

November 15th.—Anchored in Traverse at noon to change the lightship, left the Manicouagan Lightship in place of lower Traverse Lightship and brought the lower one up, and left at 2 p.m.; at 5.15 p.m. off Crane Island; came on thick fog; anchored for the night.

November 16th.—At 6 a.m. weather clearing up; left, and arrived at Quebec at

wharf at 11 a.m., where we remained waiting orders.

November 28th.—Ordered to be ready to leave after last ocean steamship had

left.

November 29th.—Weather fine; at 4.30 a.m. left to proceed to the Traverse to pick up the buoys and lightships'; at 10.15 a.m. spoke to Captain Damours of the Red Island Lightship, and Captain Gourdeau of the Lower Traverse, one under sail, and told them to proceed up to Quebec under sail, that I would lay at their place in the Traverse as there was one of the Montreal and Acadian steamships expected; picked up all the buoys except Black buoy on St. Roch's Point; anchored at 12.30 p.m., at the lightships place.

November 30th.—Still at anchor.

December 1st.—Still at anchor, freezing hard, ice making.

December 2nd.—Picked up the Black Buoy at St. Rochs Point, laid there until 2.15 p.m.; no sign of any steamship coming up; blowing strong from westward; left to go to L'Islet wharf for orders; when off there, could not land, too much ice on shore; went and anchored at Crane Island for the night.

December 3rd.—Thick snow; left Crane Island at 7 a.m. for Quebec; took Manicouagan lightship in tow; at 9 a.m. off Madame Island; arrived at Quebec at 1 p.m., and received orders to put "Napoleon" in winter quarters at Blais Booms.

December 4th.—Left wharf at 7.30 a.m. to go to Blais Booms at 8 a.m.; ship

moored for winter.

April 1st to 15th, 1878.—Putting ship in order for spring service.

April 15th.—Received orders to proceed to Government wharf; alongside wharf at 6 p.m.

April 16th.—Coaling.

April 17th.—Received orders to leave with Lower Traverse, Manicouagan and Red Island lightships, and left a 8 a.m. to take them to their stations; at 5.15 p.m., anchored the Lower Traverse Lightship at her station.

April 18th.—Anchored 1 a.m. Red Island Lightship at her station; at 10 a.m.,

anchored the Manicouagan Lightship at her station, and then left for Quebec.

April 19th.—Arrived at the wharf at Quebec at 4 p.m.

April 20th.—Preparing ship; laying alongside of wharf waiting orders, until 22nd May.

May 23rd.—Received orders to take full crew and get ready to proceed to supply

lights in river as far as Seven Islands.

May 28th.—Left Quebec to cross over to Grand Trunk Railway depôt to take in powder, and left at 2.30 p.m. tor St. Lawrence Point; arrived at 4 p.m.; left at 4.30 p.m. for St. Johns, and left there at 6 p.m. for Beliechase; arrived 6.30, and left at 7 p.m. for Crane Island; and anchored there at 8.30 p.m. for the night, having supplied all these lights.

May 29th.—Left Crane Island 3.30 p.m. for Pillars; arrived at 5 a.m., left at 7.30 p.m. and arrived at St. Denis Wharf at 9.30 a.m.; left at 10.15 and arrived at Grosse Island, Kamouraska, at 11.30; left there and arrived at Pilgrims at 2.15 p.m.; left at 4.50 p.m. and arrived at Brandy Pots at 6 p.m.; having supplied all these lights; we then anchored for the night.

May 30th.—At 3 a.m. we left Brandy Pots for Green Island, and arrived there at 5 a.m.; landed all supplies, and left at 7.30 a.m; arrived at Red Island Lightship

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10.20 a.m.; and left at 10.40 a.m. for Saguenay, and arrived at Lark Island at 11.20 a.m., and landed supplies for range lights; then left at 2.15 p.m. for Bic, where Iwe arrived at 6 p.m.; landed supplies and laid there all night.

May 31st.—Left for Father Point, 2 a.m. and arrived there at 5 a.m.; left at 7 a.m. and arrived at Metis at 9.30 a.m.; left for Matane, at 10.30 a.m. and arrived at 1 p.m.; left at 3.30 for Cape Chatte, and arrived there 6.30; having landed all supplies at each light, and left for Seven Islands at 8 p.m.

June 1st.—Arrived at Seven Islands, 3.30 a.m.; and left for Egg Island, at a.m.; arrived there 11.45 a.m., and left for Point des Monts at 4.30 p.m.; anchored at Trinity Bay at 6.30 p.m.; too rough to land, had to go and anchor for the night.

June 2nd.—Left Trinity Bay at 3.30 a.m., and arrived at 4 a.m. at Point des Monts; and left at 5.45 a.m. for Manicouagan Lightship; called there and left for Port Neuf, and anchored at 2.45 p.m.; having landed supplies at all these lights during the day; left there at 11 p.m.

June 3rd.—Arrived at 7 a.m. at Cape Goose; left there and at 10.25 a.m. arrived at St. Pauls Bay; left there at 11.15 and arrived at Montdu Lac at 2.15 p.m.; left 3.30 p.m. and anchored at St. Francis at 4.30; having landed all the lighthouse supplies at these places, left for Quebec, and arrived there at 8 p.m. and went alongside of Government wharf.

June 4th.—Alongside of wharf, coaling, loading and preparing for the summer trip, with all supplies for the lighthouses in the Gulf of St. Lawrence, and remained

at wharf until 3rd July.

(Signed) A. C. DESPRES, Master, Dominion Steamship Napoleon III.

# SPECIAL REPORT.

Quebec, 8th December, 1877.

Sir,-I have with Captain Despres, Mr. Routier, carpenter, Mr. Vezina and Mr. Ralph, engineer, carefully examined the hull, engines and boilers of steamship "Napoleon III," at winter quarters at Blais Booms; and find that the following repairs require to be done to enable her to perform the service in the spring in addition to the ordinary outfit; -

Four staterooms complete, bulkhead taken down, and put up for iron stays; Forecastle taken down, scraped and painted and clapboarded, and new deck

forward;

Eight new iron stays on ship side complete; Anchor davits repaired; Six side lights plugged up in ship's side; Rudder head repaired and new guide; Air pump chambers taken out and bored: Air pump buckets taken out and repaired; Exhaust trunnion pipes repaired; Repairs to boilers; Repairs to copper pipes and valves; Repairs to condenser; Sails overhauled and repaired.

> I am Sir, Yours &c.,

(Signed)

WILLIAM BARBOUR. Inspecting Engineer.

J. U. GREGORY, Esq., Agent, Marine and Fisheries Department, Quebec.

The above repairs were all done, excepting new staterooms, not allowed by the Agent.

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# LOG OF DOMINION STEAMSHIP "DRUID," CAPTAIN A. MARMEN.

July 17th to 27th, 1877.—At wharf, cleaning up, coaling, and waiting orders. July 28th.—Received orders from Mr. Gregory to prepare to leave with Dr. Fortin, Dr. Wakeham and Mr. Galt for the Gulf on the Fishery Commission, and at 10 p.m. left wharf, proceeding down the Gulf as far as Magdalen Islands, calling at all places on north and south shore, also Baie des Chaleurs, as was necessary for the interest of the Dominion in connection with the Fishery Commission, and returned to Quebec at 7 p.m. on the 26th August.

August 26th to 30th.—At the wharf.

August 31st.—Left to place a buoy in the Traverse, and returned to Quebec on 1st September, at 3 p.m.

September 1st to 3rd.—At the wharf.

September 4th.—Left at 3.50 a.m. to proceel to Traverse to place a buoy, and returned to Quebec at 5 p.m.

September 5th to 26th.—At wharf, coaling, &c., waiting orders.

September 27th.—Left Quebec 4 a.m. to proceed to Traverse to place a buoy; returned at 7 p.m.

September 28th to 14th November.—At wharf.

November 14th.—Left to pick up the buoys in the Lower St. Lawrence, returning to Quebec at 2 p.m., November 19th.

November 20th.—At wharf discharging buoys.

November 20th.—Received orders from Mr. Gregory to leave for winter quarters at Blais Booms, and left on 21st November at 6 a.m.

April 14th, 1878,—Left Blais Booms for Government wharf; began coaling and

taking on board the buoys for the Lower St. Lawrence.

April 16th.—Left at 7.30 a.m. with all buoys on board, and took the Lower Traverse Lightship in tow from the wharf; proceeded down the river, placing the buoys as we went, and at 5.15 p.m. placed the lightship in the Traverse, and after placing all the buoys returned to Quebec on April 19th at 8 p.m., and proceeded to wharf.

April 19th to May 5th.—Taking on board all supplies necessary to supply the lighthouses between Quebec and Montreal.

May 6th.—Left wharf at 6 a.m.; visited St. Croix, Port Neuf, and Platon, and

gave full supplies to these lights, and anchored at 8 p.m.

May 7th.—7.30 a.m., placed Platon buoy, and visited Richelieu, Lotbinière. Rivière du Chene, Grondines, Cape Charles and Batiscan lighthouses, and gave full supplies to each, and anchored at 9.30 p.m.

May 8th.—Left at 5 a.m., and visited St. Pierre les Becquets, Champlain, Cap a la Madeline, Port St. Francis and No. 3 Lightship, and anchored at 7 p.m., having given the necessary supplies to these lights, and having also landed at Champlain, a new lighthouse; also carpenters to place the same in position.

May 9th.—Left at 6 a.m. and visited the following lights, giving full supplies to each: Point du Lac No. 2 and No. 1 Lightships in the Lake, and Isle aux Raisins,

and anchored at 8.15 p.m.

May 10th.—Left at 4 30 a.m.; visited Isle a la Pierre, Isle de Grace, Lavaltrie, Contrecœur, Isle aux Prunes, and Sorel, supplying all these lights; also landing at Sorel all supplies for the lights at Ash and Bloody Island, St. Valentine and Lacolle, and at 8 p.m. anchored at Ste. Therese.

May 11th.—Left at 4 a.m.; visited Ste. Therese, Repentigny, Isle a la Bague, Point aux Trembles and Montreal, having given full supplies at all these places, and

went to wharf in Montreal at 4 p.m.

May 12th—Sunday at wharf.

May 13th.—Left wharf at 4 a.m. for Quebec; at 8.30 p.m. supplied St. Antoine Lighthouse, and arrived in Quebec at 7 p.m.

May 14th.—At wharf coaling, and preparing the vessel to receive on board Their Excellencies, Lord and Lady Dufferin and suite.

June 8th.—Left at 11 a.m., with Their Excellencies on board, for Gaspé, where we arrived at 5.40 a.m. on the 11th June, and remained in the Basin until the 14th of June.

June 14th.—Left Gaspé Basin at 2.20 a.m. for Quebec, where we arrived at 5 a.m. on 16th June, and proceeded to wharf.

June 16th.—At wharf, coaling, &c., and remained there until 20th June.

June 20th.—Left with His Excellency, Lord Dufferin, for the Island of Orleans.

June 21st.—Returned to wharf at 8.30 p.m. June 22nd to June 30th.—At wharf.

(Signed)

A. MARMEN, Captain,

Dominion Steamship "Druid."

# SPECIAL REPORT.

QUEBEC, 19th December, 1878.

SIR,—I have this day, with Captain Marmen, Mr. Routhier, carpenter, and Mr. Carroll, engineer, examined the hull, engines and boilers of the steamer "Druid," now in winter quarters at Blais Booms, and find that the following repairs will require to be done for the vessel to perform her usual service in the spring:—

Repairs to boiler and engine;

1 brass packing ring for feed pump; 1 brass packing ring for surface blow; 6 steel pins, and repairs to steam winch;

2 rubber air pump valves, and 3 joints for man-hole doors.

The above repairs were all completed.

I am, Sir, Yours truly,

(Signed)

WILLIAM BARBOUR,

Inspecting Engineer.

J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

### SPECIAL REPORT.

QUEBEC, 7th June, 1878.

SIR,—According to your orders, Mr. Samson, Steamboat Inspector, has tested the boilers of the steamship "Druid" to 30 lbs. per square inch, and found all tight and in good order.

I am, Sir, Yours truly,

(Signed)

WILLIAM BARBOUR,
Inspecting Engineer.

J. U. Gregory, Esq., Agent, Department of Marine and Fisheries, Quebec.

### SPECIAL REPORT.

QUEBEC, 6th December, 1877.

SIR,—I have to day, with Mr. Samson, Steamboat Inspector, examined carefully the boiler and engine of River Police steamer "Dolphin," in winter quarters on the Department Wharf, and find the following repairs will require to be done for her to perform her services next summer; also the ordinary outfit:-

> 1 new boiler: Alteration of deck for new boiler; Repairs to engines and pipes.

(Signed) WILLIAM BARBOUR, Inspecting Engineer.

The above repairs were all done.

QUEBEC, 1st June, 1878.

Sir,—According to your orders, Mr. Samson, Steamboat Inspector, has tested the new boiler of River Police steamer "Dolphin," to 165 lbs. per square inch, and found all tight and in good order.

> I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,

Inspecting Engineer,

J. U. GREGORY, Esq., Agent, Department of Marine and Fisheries, Quebec.

### SPECIAL REPORT.

Quebec, 7th December, 1877.

Sir,—I have this day, with Mr. Routhier, carpenter, examined carefully the engine and boiler of the River Police steamer "Adele," in winter quarters on the Department Wharf, and find the following repairs are required to allow her to perform the services next summer, besides the ordinary outfit:-

> Old hull repaired or a new one built; Putting in engine and boiler.

Repairs to pipes.

I am, Sir, Yours, &c.,

(Signed)

WILLIAM BARBOUR,

Inspecting Engineer.

J. U. GREGORY, Esq., Agent, Department of Marine and Fisheries Quebec.

MOVEMENTS OF LIGHTSHIPS, FALL OF 1877.

November 11th.—Upper Traverse Lightship arrived up at noon for winter quarters at Blais Booms.

November 16th.—Lower Traverse Lightship arrived at noon in tow of steamship "Napoleon III," and went to winter quarters at Davies slip, and was taken on the slip at 7 a.m., on 22nd November.

December 1st.—Red Island Lightship arrived under sail at 4.30 a.m., and at 10 a.m. came to the wharf to land sails and running gear, to put in store for repairs during winter, and at 2 p.m., 4th December, left for winter quarters at Blais Booms.

The three lightships on Lake St. Peter went to winter quarters at Sorel. No. 2 was hauled up for extensive repairs. No. 3 will require to be hauled up in the fall of 1878 to be scraped and painted, and No. 1 the next fall for the same purpose.

(Signed) WILLIAM BARBOUR, Inspecting Engineer.

# MOVEMENTS OF LIGHTSHIPS, SPRING, 1878.

April 9th.—Captains arrived, took charge and began work.

April 13th.—Upper Traverse, Red Island and Manicouagan Lightships, came

down to the wharf at 4 p.m.

April 15th.—Took in coal and water. Lower Traverse Lightship came to wharf at 6 p.m. Mr. Samson tested the boiler of Manicouagan lightship to 120 lbs. per square inch; tested engines, and found them in good order.

April 16th.—Upper Traverse Lightship left for her station at 7.30 a.m. in tow of steamer "Druid." Mr. Samson tested the boiler of Red Island Lightship to 105 lbs. per

square inch, and found all correct.

April 17th.—Manicouagan, Red Island and Lower Traverse Lightships left in tow of the steamship "Napoleon III," at 8.39 a.m. for their respective stations.

#### COALS TAKEN ON BOARD.

April 16th.—Manicouagan, 25 chaldrons; Lower Traverse, 16 chaldrons; Red Island, 20 chaldrons; Total, 61 chaldrons.

(Signed) VILLIAM. BARBOUR, Inspecting Engineer.

# APPENDIX No. 2.

REPORT OF THE NEW BRUNSWICK AGENCY OF THE DEPARTMENT OF MARINE AND FISHERIES, FOR THE FISCAL YEAR ENDED THE 30th JUNE, 1878.

AGENCY OF THE DEPARTMENT OF MARINE AND FISHERIES, St. John, N.B., 1st September, 1878.

SIR,—I have the honor to forward the following statement of the operations of this branch of the Department, for the fiscal year ended 30th June, 1878, making the eleventh Annual Report, together with a supplementary statement to the present date.

It affords me much pleasure to state that though the expenditure during the past year was reduced to the lowest amount practicable to the proper maintenance of the lighthouse service on this coast, and with a due regard to the protection of human life and property, yet I would beg to state, as the result of my observations on a recent visit of inspection, that although the lighthouses apparently have not suffered material injury, there are several that are suffering from the ravages of time, and the constant wear of winds and waves, some of which were erected many years ago by the Government of New Brunswick, prior to the service passing into the hands of the Dominion Government. Many of them are very high towers, presenting a large extent of surface to the weather, and receive the full force and fury of storms, such structures require the greatest care and watchfulness on the part of those whose duty it is to attend to their supervision.

Under the respective headings will be found the particulars of the condition of each station, and the amount of repairs necessary for their maintenance. The total number of lights, under the supervision of this branch of the Department is 67, and the total amount of expenditure during the fiscal year was \$77,437.82, divided as follows:—

Lighthouse and Coast Service	<b>\$5</b> 1,490	72
Buoys and Beacons	4,823	<b>5</b> 3
Construction	9,528	13
Observatory		
Marine Hospitals	10,745	44
	\$77.437	82

# LIGHTHOUSE AND COAST SERVICE.

The district over which the Agency has supervision embraces all the lighthouse stations on the coast of the Province of New Brunswick, the River St. John, Straits of Northumberland, and Baie DesChaleurs, all the buoys and beacons, fog whistles, hospitals, and temporary lodgings for sick and distressed seamen who may be landed on our shores; all fog whistles and lighthouses now in course of construction, together with the various accounts connected with the above works, and the accounts of the fishery branch.

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LIGHTHOUSES.—There are sixty-seven lights under the supervision of this Agency of the Department, and these are under the immediate charge of fifty-nine lighthouse keepers, including the lightship on the Miramichi River, and fog-whistles.

Fog. Whistles.—There are eight fog-whistles in operation on the coast of this Province, six of which are in the Bay of Fundy, and two in the Gulf of St. Luwrence. One additional one at Head Harbour, which is not at present in operation, and

another in course of erection at Letite Passage.

The number of keepers in charge of the respective lighthouses and fog-whistles with the names and post-office address of each, will be found in the Appendix to this Report.

#### GRINDSTONE ISLAND.

Lat. 45° 43' 13" N.; Long. 64° 37' 25" W.

On the 17th of July last I visited this Station, which is situated at the head of the Bay of Fundy. The result of my inspection, the particulars of which I forwarded to the Department at that time, will be found in my last Annual Report, under the above heading. At that time the building for the fog-trumpet and coal shed were completed for the erection of the machinery. This was subsequently erected by Mr. Crosby, and was put in operation in December, 1877, at which time I again visited that Station, and reported on the condition and character of the machinery and appurtenances, the fog-trumpet, and the mode of operation for giving the sounds. At that time I was apprehensive that there was a deficiency of boiler power to supply the amount of steam required, when I submitted the following report of its condition to the Department:—

November 24th, 1877.

SIR,—I beg to report that the fog-trumpet at Grindstone Island is now complete, and in working order. The machinery has been erected by Mr. Crosby, and is in excellent working condition. The trumpet itself is the same as that attached to machinery at Head Harbour Station, but the machinery and its mode of working are

entirely different.

There is a large cylinder connected with the one at Grindstone Island, from which the air is forced by two air pumps connected with the engine, by which means a uniform pressure is maintained in the air cylinder, the valves being opened and regulated by the governor of the engine, so as to give the number of sounds required per minute, and their duration is regulated by a lever, so that the sounds are made with great regularity. Two, three or four sounds can be given during each minute. The number I prefer there is two blasts a minute. How far it can be heard against a strong wind I am unable to state, as I had no opportunity of testing it, but I would say under or about one mile. I heard it very distinctly about six miles under very favourable circumstances. The trumpet was turned with the wind, and in the direction in which I was placed, and I am satisfied that it could have been heard at that time some few miles further in the same direction. The machinery is strong and substantial, and can be relied upon to give regular and uniform work, provided the boiler is sufficient.

There is a good supply of water in the pond formed by Mr. Stephens in the swamp, and it is conveyed by pipes under ground to the tank in the engine

house.

The quantity of coal consume l per 24 hours is about three barrels, but if the boiler was covered with canvas or felt, and a heater attached to the boiler, so as to have the water go into the boiler warm, it would be a great savings. Mr. Wm. M. Smith adds as follows: "from Mr. Crosby's description of the size of the boiler, and the quantity of steam required, I entirely concur as to the need of a heater and covering the boiler." I was at the time apprehensive that there might be a deficiency of

steam to run the machinery regularly. This has proved correct, as upon working the machinery regularly for some hours together, it has been found that additional steam power was required to keep the machinery running regularly, at a uniform speed, so as to produce with regularity and precision the required number of sounds

per minute.

I therefore recommended the Department to add a heater, by which the water supplied to the boiler would be warmed by the exhaust steam before entering the boiler. This was accordingly done and the effect was good. The boiler was supplied with hot water instead of cold as originally arranged by the maker, so that no perceptible change in the supply of steam was experienced. Yet it was found that this additional aid given to the boiler was not sufficient to keep up the supply of steam required for working the machinery, so as to give regularly the number of sounds required per minute. My report to the Department on this subject, on the 18th December, 1877, I beg to subjoin. After working the machinery for a short time, I was in favour of having a longer sound, but I found, on consultation with Mr. Crosby who erected the machinery, that three seconds was the longest sound that could be given by this apparatus at one blast. I tried one, two and three seconds between each blast, and found that we could get three, four or five blasts or sounds per minute of two seconds each sound with greater regularity and ease than one of longer duration.

Three blasts or sounds of five seconds in each minute would exhaust the receiver to such an extent, that the required pressure on the air gauge could not be maintained. This apparatus is adapted to sound often and at short intervals, and to have the air pumps to work rapidly and the engine quickly, thus keeping up the required pressure in the air cylinder. If the engine runs slowly and the blast is long the receiver is rapidly exhausted, and the air pumps would be working too

slowly to keep up the supply and pressure in the air cylinder.

The full length of the lever of the operating valve, with the ball fully extended only gives three seconds duration for each sound, thus showing that the machine was not intended to give a sound of longer duration than three seconds, the longest sound that can be produced with satisfactory results is one of three seconds duration, three times per minute. If this time is adopted it may be maintained by adding the

heater and covering the boiler, as the latter, on the whole, is rather small.

Mr. Crosby, the engineer in charge for the time being, reported that the trumpet could not be kept sounding uniformly without still greater boiler power or supply of steam. The Department therefore directed Mr. Wm. M. Smith, Steamboat Inspector, to proceed to that Station, and examine the machinery and test its power &c. This was attended to by Mr. Smith, who reported fully to the Department on this subject. The Department on receipt of this Report directed that a a new boiler be made and placed alongside of the smaller one, and that it should be so arranged that one or both could be used separately or together, as occasion might require. The usual notice was therefore given to mariners of the stoppage of the fog-horn, and a new boiler was tendered for according to the description and specification of Mr. Smith, and the tender of Messrs. McLaughlan being the lowest, it was accepted.

The boiler was completed and forwarded to the Station, and is now in course of erection, under the personal supervision of Mr. Smith. The latter gentleman states that an addition to the present building will be necessary in order to cover the boiler and protect it from the weather; when this addition is completed, due notice will be given of the time the trumpet will be put in operation, and I have no doubt but that the machinery will then be in a condition to work regularly, with an ample supply

and head of steam sufficient for all requirements.

The horn itself, which contains a vibrating reed, by which the sound is produced, is a novel arrangement to this branch of the Department. Time alone will show whether its adoption is more economical, and whether it will prove of greater efficiency for the service than those in use on this coast. It occurs to me that it is more liable to get out of repair, and is not so efficient as the ordinary whistle used

by the Department at the other stations. All the other parts of the machinery appear to be good and substantial, and work smoothly when in operation.

The importance of establishing a whistle or fog-horn at this Station has frequently been reported on, as it is the entrance to Five Fathom Hole, the only safe

harbour of refuge for vessels on the eastern side of the Chignecto Channel.

The fog-trumpet being added to this Station, an increase of pay was allowed to Mr. J. R. Stiles, out of which he is to provide and pay for the services of a suitable engineer, whose qualifications for the position will be subject to the approval of the Department. The repairs to the lighthouse and other improvements at this Station last year were done by Mr. J. R. Stevens, and which he reported on as follows:—The old sills from the lighthouse were removed with considerable trouble, on account of the sills being bolted with bolts 6 feet long,  $1\frac{1}{2}$  inch diameter, to wall, but I succeeded in getting them out; new sills were placed under, and again thoroughly bolted. The old floor being rotten, I was obliged to replace the whole with new. In removing the old sills, the steps leading into the lighthouse had likewise to be removed, and, being much decayed, tumbled to pieces, and required to be partially made new. The pond for whistle was made 35 feet long, 17 feet wide, and about 4 feet deep. In digging the ditch, the part crossing the reef near the corner of the barn, for 100 feet, was solid rock, which I had to blast to the depth of 8 feet, in order to bend it to the engine house. The whole length of the ditch was 250 feet; you can readily see how expensive the work was. The platform for landing coal and supplies was constructed about 35 feet square, and with the addition of bolted timbers across the middle of the posts, which were planked over and ballasted, in order to prevent the posts rising with the tides, which completely secured them, and no pains was spared in making the work safe. I also had made steps for ascending and descending to the reef. After completing the foregoing, the men were set to work, and made a good, thorough road from the platform to the top of the hill. The water in the pond was a foot deep and still increasing.

### CAPE ENRAGE (FIXED WHITE.)

Lat. 45° 35' 34" N.; Long. 64° 46' 55." W.

Mr. W. S. Starratt, lighthouse keeper and engineer, is in charge of this Station. The Department increased the pay of the keeper at this Station, on condition that he was to provide and pay for a competent assistant engineer for the fog-whistle. I had not visited this Station up to the date of this Report. "Mr. Starratt reports that he "considers it important that the lighthouse and fog-whistle should have a careful and "honest inspection." It was found necessary to stop this whistle to repair the boiler. Mr. Starratt reported that one of the plates directly over the fire was cracked and was leaking. Mr. Crosby and a boiler maker were sent to the Station to make the necessary repairs, which were completed at the expense of \$76.95, and the whistle again put in good working order. The machinery at this Station including the boiler, was that formerly in use on Partridge Island, and consequently is old, and requires greater care than is necessary where the boiler and machinery are new. A new boiler will therefore shortly be required here.

Some of the light keepers and engineers in charge of stations, have, of late, taken upon themselves the liberty of changing their assistant engineers without bringing the matter under the notice of this Agency. This is a matter which the Department cannot but regard with some concern and also with disfavor; no resident lighthouse keeper should be allowed to make changes of so important a nature as the removal of one assistant engineer and the appointment of another, without first submitting the matter to the Agency of the Department, and setting forth the reasons for such a change; at the same time submitting for enquiry the name of the person whom it is proposed to appoint in the place of the other. Then the sanction of the Department

is necessary before such an appointment can be regarded as a proper and authorized one.

It this warning be not attended to, the Department is liable to have inefficient and incompetent, as well as unauthorized persons, placed in charge of valuable and important machinery and stations without their knowledge.

# QUACO (REVOLVING WHITE.)

Lat. 45° 19' 20" N.; Long. 65° 31' 55". W.

I visited this Station in July and September, and found the keeper and his assistant in charge. The machinery of the lighthouse was in good order, and the lamps were clean and well kept, as was also the machinery of the fog-bell at this Station. The light at this Station is one of the most brilliant and regular wor king revolving lights in the Bay of Fundy. I sat on the shore at St. Martins and watched it making its revolutions with the greatest regularity and precision, and throwing out over the Harbour Bay and the surrounding country its brilliant light as it revolved. Mariners, as well as the inhabitants of St. Martins, speak in warm terms of this beautiful light, and also of the value and importance to that Station of the fogbell, which can be heard at a great distance, and is an invaluable guide in making the harbour in thick and foggy weather. I was much pleased to learn that the light was well maintained, and gave such general satisfaction, although the keeper, Mr. Wm. Love, and his assistant are both aged and infirm men. The assistant is paid by Mr. Love out of his own salary. This must necessarily reduce his own allowance to a very small amount, scarcely sufficient, one would infer, for the support of his family. An assistant of some kind is necessary at stations where there is both a light and a fog-alarm, as the number of successive days during which fog continues in the Bay of Fundy, makes it impossible for any one person to keep both in operation; especially so where the machinery has to be carefully watched during the whole time the weather is thick or foggy. The fog-bell at this Station requires winding up every two hours, and where the fog continues for days together the Department can easily see the excessive strain that comes on the keeper even where there is an assistant.

# CAPE SPENCER (REVOLVING RED AND WHITE.)

Lat. 46° 12' 30" N.; Long. 65° 54' 0" W.

This light is well maintained; Mr. J. C. Blacklock is the keeper and bestows the greatest care and attention upon his duties. None are more alive to the importance of having everything in a regular and orderly manner than Mr. Blacklock, and in his general supervision the Department have a keeper on whom they can relie with great dependence.

# ST. JOHN HARBOUR (BEACON LIGHT, FIXED WHITE.)

Lat. 45°, 15' 10 N.; Long. 66° 3' 40" W.

This light is well maintained by Mr. Clark, who has an assistant with him, and gives careful attention to his duties, preserving a good light, and in keeping the building and its surroundings in proper order. The bell is, also, carefully attended to, and is indispensable in entering and leaving this port in thick and foggy weather. Mr. Clark pays his assistant out of his own salary, and he has been soliciting the Department for some allowance for this extra outlay, which has not as yet been acceded to by the Department.

# POINT LEPREAUX (TWO FIXED WHITE, 27 FEET APART.)

Lat. 45° 3' 40" N.; Long. 66° 27' 39." W.

I visited this Station when the steamer "Newfield" was on her annual tour, for the purpose of carrying supplies to the lighthouses and fog-whistles of the different stations on the Bay of Fundy. I found the lights well maintained and everything kept in a clean and orderly condition. Mr. George Thomas, the keeper of this Station, is one of the most careful, painstaking and experienced light-keepers in this branch of the service, and any casual observer, in passing through the lighthouse and over all parts of the premises, is at once struck with its neat and regular

appearance.

The reflectors of both lights have a bright and high polish, and reflect, like mirrors, objects put in front of them; we have none like them on this coast. I could not but ask Mr. Thomas how he obtained such a brilliant polish, and he replied that he occasionally used the silver wash supplied by me some few years ago. He was at first disposed to throw it away, believing that it did no good, but Mr. Thomas, being a thoroughly intelligent and practical man, was determined to give it a fair trial before condemning it. He therefore persevered, using it as directed, and it was not long before he found the reflectors getting brighter and more brilliant, and by perseveringly continuing its use, they were in time covered with a new coating of silver, fully as bright, if not more so, than when they first came out of the silversmith's battery. The liquid did not at once, nor on being several times used, produce this result, but at each time of washing the reflector retained a small portion of the silver which was held in solution in the liquid, until after repeated applications its effects were seen by the covering of silver, evenly deposited all over the face of the reflectors, so that now, after some years' use, those reflectors keep and present a more brilliant and highly polished surface than any in the service that have come under my observation. I, therefore, feel greatly indebted to Mr. Thomas for this practical result of an experiment, which I adopted with some degree of reluctance on the recommendation of Mr. Hillman, some years ago. I afterwards felt disappointed at the results of its trial at the lighthouses where I had sent it, with directions for its use. Most, if not all, of the other keepers threw it aside, and pronounced it useless, but I shall again direct it to be used by all those light-keepers who have been supplied with it. At some Stations the reflectors are old, and its use could only be expected to be serviceable where the surface is good and the silvering not actually worn off; where this is the case they will again require re-silvering, and then, by using this liquid, the brilliancy of the reflectors may be maintained and yearly improved, instead of being removed and worn off by the constant cleaning as has heretofore been the case.

I had an opportunity of testing the boat supplied by the Department recently to this Station. Mr. Thomas is delighted with her, and well he may be. I saw him launch her down over the bank and along the beach of jagged and uneven rocks with the greatest ease, without the least injury to the boat; he lifts her about as if she were a toy, carrying her from one rock to another with great ease, and when in the water she floats with much buoyancy, is perfectly safe and easy to manage, and will carry from six to eight persons safely in a heavy sea. Several of the stations have already been supplied with boats from this model by the same builder, and all who have received them are delighted with them. It has been a very difficult matter to supply the keepers with satisfactory boats, as they had so many different notions respecting what was required, but I am now satisfied that for a rowing boat we have now reached precisely what is required.

The sills of the lighthouse tower on the south-east side of this Station are very considerably decayed, and will require renewing next season. (This building was erected in 1831, 47 years ago), and when that is being attended to such other repairs

as may be required can then be made.

The road to Thomson's Cove, over which the coal is carted, required some repairs, and I gave Mr. Thomas permission to expend from \$10 to \$15 in repairs

upon it, in filling up the ruts and holes made in carting the coal and supplies to the Station, so as to keep the road in good repair.

# PEA POINT, L'ETANG HARBOUR

Lat.

Long.

When I visited this Station last year the building was not fully completed, nor the lighting apparatus in its place in the lantern. It has since been finished, and

the lighting apparatus erected, and the light put in operation.

I wish that I could, after making my visit of inspection to this Station, report to the Department that the contract work is to my satisfaction, but it is not so. The workmanship throughout is of the roughest kind, and ought not, in my opinion, to have been passed by the local inspector, though I have not the specification before me to refer to. I can scarcely believe that it has been finished according to specification and contract. With reference to having a first-class light at this Station. I referred to it in my last Report to the Department as follows:-

"The importance of this light cannot be over-estimated. It is situated at the eastern entrance to L'Etang Harbour. During my stay at this place I had an opportunity of examining more fully this safe and spacious port. Without exception it is one of the very finest harbours in the Bay of Fundy, with a wide and easy entrance, deep water, and completely protected from every wind and storm. The two lights, one at the western, and the other at the eastern entrance to this extensive and sheltered harbour, are two lights of the greatest value to the marine service of the Bay of Fundy. Oil and some other supplies were landed at this Statiou, and these were with some difficulty got to the lighthouse."

I regret to inform you that this green light is not considered sufficiently clear

and discernable for that Station. I quite understand the object the Department had in view in selecting a green light for this place, viz: to prevent mistakes where the other lights are numerous and so near together. I have had but little experience of the characteristics of green, and unable to state whether the defective and poor light was from this or other causes, but I was unable to discern it, when within but a short distance of it, in the "Newfield." Whether this was to be attributed to the glass or the keeper not having the full power of the light on I cannot say. On arriving at the Station he informed me that the lamps were burning as high as was safe.

I am not prepared to state that I am very favourably impressed with this description of burner for lighthouse purposes, from the short experience I have had of its working—that is only at the breakwater at Negrotown Point, and the Pea Point

Stations and Pokemouche.

My own impression at this moment is, that it would be improved by a button to bring the oxygen of the air more in contact with the flame to produce greater combustion, and give greater intensity and whiteness to the light. I thought of trying

this on one of the lamps for my own satisfaction.

The ordinary Argand button lamp now used by the Department gives a fine light, and so also does the mammoth flat-wick burner. The latter are safe, and well adapted for inexperienced light keepers. Captain Purdy addressed to me the following note with reference to Pea Point Light:-

"Dominion Government Steamship 'Newfield,'
"Point Lepreaux, N.B., 27th August, 1878.

"SIR,—The light at present exhibited at Pea Point is not at all suitable, as a green light does not show for any great distance, and is liable to be mistaken for a vessel's starboard light. I would respectfully suggest that it should be changed to a red flash light.

(Signed)

J. N. PURDY.

"J. H. HARDING, Esq.,

"Marine and Fishery Department,

"St. John, N.B."

If this suggestion should be adopted, a new lantern would be required, as the present one is too small, and not suitable for a revolving light. I shall require to visit or send some competent person to this Station, at an early day, to have the workings of this light carefully examined into.

With reference to the purchase of land at this Station, I would beg to submit a letter received from Mr. C. McGee, of St. George, but the purchase has not yet been

effected :-

"SAINT GEORGE, 22nd October. 1877.

"SIR,—I received a letter from Mr. Bennett on the 20th inst., and I herewith sub-

join extracts of the same, relating to Pea Point Island, &c. :

"In regard to Pea Point Island, with a road to it, I understand that \$75 is the price that you have set upon it, so I suppose I must agree to it. Now, if you want the deed for it, you will get it made out, and send it on to me for signature and acknowledgment. Then I will return it to you, and you can remit the money by Post-office Order.'

"In regard to the Pea Point field, I will sell about five acres for \$150, and no less. I should like to know as soon as possible, as I am about selling the whole

place.' Also as follows:---

"The sum of \$75 is the amount agreed upon between his son and me last spring for the Island, and I feel that the Government will be satisfied, as it is a reasonable figure. The field referred to in the second paragraph of the extracts from the letter, is the whole or about the whole of the available land on the Point, a part of which I suggested to you some time ago, as the Government would do well to buy, that the keeper might have an opportunity to raise some farm produce to assist in supplying himself and family. Were the five acres referred to, or as much as the Department thought necessary, purchased for the benefit of the keeper, I feel satisfied that it would in the end be a saving to the Department, as the products of the said land would fully supplement a low salary, while without a small piece of land to work, the Department may find it difficult to retain a keeper without an increase of salary."

"I have the honor to be, Sir,
"Yours truly,

" (Signed)

C. McGEE.

"J. H. HARDING, Esq., Agent,
" matine and Fisher es. St. John."

#### MIDJIC BLUFF.

# Lat. 45° 6' 53" N.; Long. 66° 54' 30" W.

I visited this Station on the 26th August. The light is carefully maintained; there are three mammoth flat-wick burners in use at this lighthouse. Two panes of glass in the lantern were cracked, but not sufficiently damaged to be removed.

It was found that the Indian rubber lining put in back of the last pane had worked nicely, and the pane had not been cracked in setting as were some of the others, both at this and other stations, but has remained perfect. It is considered that since more of the woods have been cut away, that an additional burner would be an advantage to this Station; this I will have attended to. A small bridge required to be replaced on the road, which I agreed to pay \$3 for when completed, and to make a further small consideration on their removing a body of trees still obstructing the light to the southwest.

# SAND REEF LIGHTHOUSE (PASSAMAQUODDY BAY.)

Lat. 45° 3' 45" N.; Long. 67° 0' 50" W.

I visited this lighthouse on the 24th August, when the supplies were landed from the "Newfield."

In January last I received the following letter from Mr. Jas. Clark, the keeper: "The gale of the 11th instant varried away part of my wood, and ripped up the upper deck on the northeast side; I had the deck fastened down again. Lost the water-spout and all the water but one barrel. The spray went all over the top of the lighthouse. The stairs also gone."

This is the second time the stairs have been carried away; the sea strikes with great power and force particularly on that side of the lighthouse block. I gave directions how I wished the stairs rebuilt, but they did not have the work done as I directed. I was surprised to see the size of the timber that was broken and smashed up, and the heavy iron bolts drawn and twisted as though they were threads. With this exception I found all in good condition.

Since writing the above, Mr. Gilley, a competent and reliable builder, has come here to see me on this subject, at the request of the keeper, and I forwarded to the Department at Ottawa a brief sketch of an improvement that we thought desirable to adopt, which would protect the main block, and give a safe landing at the stairs for boats, and enlarge the space on the top of the blocks, where storing room will be valuable.

As the light-keeper appears to be alarmed when a heavy storm arises, I think it would be advisable to have the dwelling-house secured more firmly to the block below by a few strong knees, which would prevent the tower from shaking, however strong the gale of wind may be.

### SAINT ANDREW'S LIGHT.

# Lat. 45° 3' 45" N.; Long. 67° 0' 50" W.

The keeper of this light, Mr. Geo. Pendlebury, has long been at this station, and gives very great attention and care to his duties. The light is well maintained. A new platform covering is required in front of the dwelling-house, which at present is not safe. This I directed him to have done, the expense being small. Some repairs are needed on the tower to prevent a leak near the lantern, which will also be attended to.

### MACHIAS SEAL ISLAND.

# Lat. 440 30' 7" N; Long. 67° 6' 13" W.

The supplies were landed at this Station on the 12th August. Mr. Wm. M. Smith took with him Mr. S. Clark, and some other hands, to erect the new dioptric lighting apparatus, of the third order, which was landed safely and has since been erected in good shape, and ready for directions from the Department to have it put in operation.

The following notice in reference to the new lighthouse has already been for-

warded to the Department, viz:-

"A dioptric light of the third order has been erected by the Government of Canada on the south-east side of the Machias Seal Island, the two lights bear N. W. and S.E. from each other, Lat. 44° 30' 7" N; Long. 67° 6' 13" W."

The height of the lighthouse from high-water mark is 66 feet, and from the base of the building to the vane 53 feet. The distance between the two buildings from

centre to centre, is 64 yards.

The Yellow Ledges bear E.S.E. from the new light 103 miles.

The north shoal bears N. ½ E., distance 1½ miles of magnetic bearings. These two lights when brought in range, lead 4¾ miles south of the Mura Ledge,, whereas

the former lights ranged with them.

With reference to the N.W. Lighthouse, I forwarded the following Report to the Department on the 4th September, viz:—"As Mr. S. Clark and men were on the Island, I directed him to assist Mr. Webster in laying a rail track from the shore to the new coal shed, on the south side of the engine house, and to remove the projecting ends of a dangerous rock lying alongside of the track near low water, which endangers the safety of boats when approaching and lying near the track, the surf forcing them against these rocks with such violence as to break them. It also endangers the lives of the seamen while discharging the coal and supplies. There is most always a heavy roll and surf breaking in over the landing, which frequently carries the boat and men over the track and against and over this dangerous jetting point of rock. One of the boats had her side partly broken in, and a hole stove in her bottom while there this trip, and consequently there was some delay in discharging before it was repaired. There are several other small matters which require to be done, and which Mr. Webster cannot do alone, and which can be done much cheaper while these men are there. I therefore considered it better to allow them to remain to assist Mr. Webster, after Mr. Smith was done with them, until your instructions are received with reference to repairs needed on the North Lighthouse, and then the parties doing that work could finish up whatever remained to be done after Mr. Webster has the new track completed. No work will be done on the North West Lighthouse by those men now there unless you so direct. Mr. George Armstrong's contract work was not quite completed on the new lighthouse building, and I did not know but the Department might make arrangements with him to make these repairs.

Mr. Webster keeps the Station in good order, and is faithful in the discharge of his duties both to the lighthouse and fog-whistle services. He is a very competent

engineer.

# GANNET ROCK LIGHT.

### Lat. 44° 0' 38" Long. 66° 47' 0"

This Station was visited on the 19th of August. Some days were lost by the steamer at Seal Cove, waiting for clear weather to approach this dangerous Station. The supplies were landed safely, and the lumber ordered for the repairs, which the Department has had in view for some years past. The following Report I forwarded to the Department on my return.

I examined the sills of the lighthouse, which it was feared were decayed from the long exposure to wet from the defective hip roof at the base of the building. I have great pleasure in stating that I found the sills had not undergone the amount of decay it was feared from their long exposure from the bad roof referred to. I had some difficulty in reaching the sills, but did so, particularly on the north side of the building where they were most exposed, and could see the condition of the others on the south side, though I could not get to them, and would therefore report that no repairs are needed on that part of the building nor need be for years to come.

The hip roof I found very much decayed, the nails are completely rusted off, and the shingles loose, and it is from this source that water finds its way to the sills of the lighthouse. This part of the building requires renewing, but no serious damage will ensue if it should be deferred till another season, when it could be removed early

in the season so as to allow the frame to become dry.

The granite wall surrounding the tower, and built for its protection, is a strong and formidable structure, and requires to be kept in good order, this I found has of late been very much shaken, and should be repaired without delay; the stones or blocks of granite have not been removed from their places, but are loose and require to be cemented anew, as all the old filling is completely gone. I landed the cement on the island for this purpose, and will direct to have it attended to; the expense

will not be large, though the seams are very open.

The whole of the platform on the north side of the building, which is wood work has rotted and decayed, so as to be unsafe to land anything upon, and they have not been using the signal gun in consequence, and serious disaster might ensue from such neglect. The specification of lumber sent to me for this purpose was only in part what is required. I shall therefore send suitable scantling by some small vessel, and have this work done without delay, as it is unavoidable, and should not have been put off so long, as it endangers the other part of the work on the south side, which is now in good condition.

The cost of the work which I would propose having completed this fall at that

Station will not be much, if any, over five hundred dollars, including material.

The illuminating apparatus is worked by delicate machinery. Some parts of it are considerably worn, and, if possible, should be duplicated. I have taken a sketch of the most important pieces, and will communicate direct with Messrs. Chance Bros. to see if they have the patterns, and can supply the parts most needed, from the

description and sizes which I am able to give them.

No pains hould be spared to have this light and Station kept up to the highest state of efficiency, as it is situated among the Murr Ledges, so dangerous to vessels entering the Bay of Fundy, and with reference to which I have, in all my Annual Reports, directed the attention of the Department, as scarcely a year passes without the loss of some vessel, and frequently great loss of life occurring on those dangerous ledges. A building of some description on the Yellow Murr Ledge might be found of great advantage in saving life and property. I beg to enclose part of a communication, cut out of the Daily Telegraph, referring to this wild and dangerous part of our coast.

"The well-known Gannet Rock Light, of which McLaughlin has been keeper 33 years, was erected in about the year 1832. This desolate rock, about nine miles to the north-west of Grand Manan, lies amongst the outermost of those dangerous shoals and ledges which surround the southern part of the island, and render the approach to the Bay of Fundy hazardous and dangerous, especially during those dense fogs which prevail on that part of our coasts. A great number of these ledges are uncovered only at low water, while the swift and stormy tides of Fundy sweep directly through them. The lighthouse is a plain wooden structure, painted white, with black, vertical stripes, and a basement formed of heavy blocks of granite, adding somewhat to its solidity, which is very necessary, as in many gales the sea sweeps over the whole surface of the rock. A light keeper and his family reside here, a situation lonely enough, as during the prevalence of bad weather all communication

with the shore is cut off, and the space between and in all directions around are one vast collection of foaming breakers. All the buildings should be of stone.

"The Government steamer visits here once during the year, and lands the rations. supplies of oil, fuel, etc., needed. A large gun is also placed on the rock, which is fired at intervals during foggy weather, to warn vessels of their approach to the rock.

"A few years ago one of Her Majesty's vessels, the "Britomart," ran almost directly on the top of the lighthouse during a fog; providentially a deep gulley intervened between the rock and the ledges through which she passed in safety, though hardly wide enough to admit her. There have been numerous other casualties on these surrounding ledges, many unfortunately causing the loss of all on board. This place should be visited more frequently, not only on account of the wrecks liable at all times to occur in the vicinity, but also on account of accident or sickness happening to the keeper or his family in their isolated home. There should be a steamer kept on purpose to visit this and many other of these Bay of Fundy lights at A small, handy wooden steamer would be a great boon to the least once a month. people living in these lonely places, enabling them to live more comfortably and have more frequent communication with the main land, and also possibly render great assistance to shipwrecked vessels and their crews. The Dominion of Canada has, during the past few years, added greatly to the number of lights and fog-alarms on its vast extent of sea coast, so that it will compare favorably with that of any other nation, and by placing a steamer line through Bay of Fundy, whose sole duty should be to attend to those remote places—would add materially to the efficiency of their marine and lighthouse department, besides the probable saving of much valuable

"The dangerous Murr Ledgee also lie to the south-west of the rock, blocking up the channel between it and Machias Seal Island, and a small light or beacon could easily be erected upon the Yellow Ledge, which is the highest and also the most southern; and a life-boat could be kept on this ledge safely, which would afford

valuable aid to shipwrecked persons, and possibly save their lives.

"Early in this month a large new ship, the "Regent" (I understand), 1,400 tons, bound from St. John to Liverpool, found herself hemmed in among these ledges, and. but for favorable winds after a few days' imprisonment, would have probably gone to pieces. I heard her value put at \$100,000. Surely the Marine Department should

to these fog death pits!"

# DREW'S HEAD, BEAVER HARBOUR (FIXED RED.)

Lat. 45° 3' 45" N.; Long. 66° 44' 0" W.

I visited this Station on the 26th August, 1878. I found everything connected with the lighting apparatus in good order, as well as the buildings and surroundings. The eastern side of the lighthouse tower leaks, and the siding will require to come off and be relaid, with less surface exposed to the weather; three inches is as much as the siding on the lighthouse tower can be laid with safety to be tight. The usual width of siding here is six inches.

# BLISS ISLAND (FIXED RED.)

Lat. 45° 1' 15" N.; Long. 66° 51' 0" W.

The supplies were landed at this Station from the "Newfield," on the 20th August. Everything about this Station is kept clean and orderly. A small expenditure on the building used as a kitchen would be well applied, and a well should be dug, if possible, as the keeper is obliged at present to bring water from a long distance.

The north side of the lantern requires another pane of glass and light, for the use of the inside of the harbour, which I directed the keeper to have put in; there are two spare panes of glass on hand.

As Mr. Clark, or some of his family, are not very healthy, he requested to be

allowed a supply of medicine, with directions for use.

The lighthouse lot requires enclosing. I told Mr. Clark that he could have this done, and that he could have poles for the purpose cut off the lot, he giving assistance to perform the work. This is necessary to avoid disputes in the future as to the boundary lines.

### ST. CROIX RIVER LIGHTS.

The supplies for these Stations were landed at St. Andrews, and placed in care of Mr. Pendlebury, to be forwarded by the steamer that goes to St. Stephen.

# SOUTH WOLF (REVOLVING WHITE.)

Lat. 44° 56' 30" N.; Long. 66° 44' 10" W.

The supplies were all delivered from the steamer "Newfield" in a short time, the facilities there now being very great, owing to the wharf and store on the same, erected by Mr. Snell, for which the Department have proposed to pay him \$160. This sum Mr. Snell considers too small, as it would not pay one-half of the cost of the work. During the last year Mr. Snell has extended the wharf out another block, which still improves the landing, and makes a larger and safer harbour inside. This has been done at his own discretion, but the improvement is valuable to the Department.

He has provided the labour and material at his own expense.

With reference to the value of the property occupied by this station, I would beg to state that the soil on the south end, on which the lighthouse is erected, is unfit for agricultural purposes, and Mr. Snell has never been able to raise a crop of any kind upon it, with the exception of a small potato field, some distance from the lighthouse, where there is a small patch of different soil. As it was near sundown when I landed on the Island, and Captain Purdy was desirous of reaching a harbour before dark, my stay was too short to get any measurements of the size of the south bluff, but I should judge from its appearance that in the lighthouse lot there would be some five or six acres. This is a rough, barren and sterile plot, without any soil on the rocks, excepting something resembling ordinary turf. I made enquiries respecting the rightful owners of these Islands, of Mr. Joshua Paul, of Beaver Harbour, and with the following result. There are five islands. Joshua Paul informed me that he purchased the five islands from James Paul for \$500, in 1832, and the deed is on record in the Registry Office in St. Andrews. Joshua sold again to Alex, T. Paul, of St. Andrews, in 1871; his wife not signing off. The conditions not being fulfilled, he still claims the property. I saw a letter from Mr. Alex. T. Paul, of St. Andrews to Mr. Joshua Paul, informing the latter that he will give him a life lease of the whole of the islands and its benefits, if his wife will sign off, but this she has not yet, I think, agreed to do. The following is, therefore, the result of my enquiries as to the titles of the property, viz:-

The Islands were granted by the New Brunswick Government to Caleb Paul in 1798. This record is from the Crown Land Office and was shown to me, signed by the Surveyor General, Mr. Stevens. These rights passed by title or heirship to Jaceb Paul, also to James Paul, then to Joshua, and from Joshua to Alexander T. Paul of St. Andrews, with these particulars the titles may be traced by the records at St. Andrews. I thought it best to get Mr. Joshua Paul's views about a price for rent or sale, as he is the party who threatened the suit against Mr. Snell the light

keeper. His conditions are as follows: 1st. He will sell the whole of the South Island on which the lighthouse is built for \$1,000, which he thinks contains 150 acres; or he will sell 10 acres where the lighthouse is built for \$250, or five acres or more or less as required, at the same rate, or will lease the whole Island for \$30 per annum with all its privileges, that is the right of cutting hay and wood for use, but claims \$150 for the past seven years rent. A right of way in all cases will be given through to the other or north east end of the Island for a landing place for winter. I am under the impression that as Alexander T. Paul, of Andrews, may have the fee simple it would be advisable to open a correspondence with him on this subject, which may lead to the Department being quieted in their possession of that portion of the Island they may require, either by an annual rent or purchase.

The following is copy of a letter received by Mr. Snell:-

"SHERIFF'S OFFICE, St. Andrews, 4th July, 1878.

"SIR,—I am informed that you have been for several years using the Southern Wolf Island as if it belonged to you, by cutting the hay, and pasturing your cattle and sheep upon it. I never gave you any permission or authority so to do, and unless you make an arrangement without any delay, with my uncle Joshua Paul, who I have authorized to act for me in the matter, I shall take legal proceedings to recover from you damages as a trespasser upon my property, and that of my sister Mrs. Crosby, and shall also bring your conduct under the notice of the Minister of Marine and Fisheries. After arranging with my uncle for the time past, you will then have to take a lease of the part of the Island you may wish to occupy, on such terms as to the rent and payment of it, as you and he may agree upon.

"My uncle's receipt for the amount which he and you may agree upon for the past, will be a sufficient release to you of all claim on my part, till the time you

agree upon the amount.

"Trusting you will attend to this without delay.

"I remain,
"Your obedient servant,

" (Signed)

ALEXANDER T. PAUX.

"Mr. EDWARD SNELL, Southern Wolf."

HEAD HARBOUR (FIXED WHITE.)

Lat. 44° 57' 49" N.; Long. 66° 54' 10" W.

The lighthouse and lighting apparatus are all in good order, as well as the dwelling-house and other buildings. Mr. McLaughlin, the keeper, is a very careful and painstaking person, and keeps everything neat and orderly. The supplies were landed from the "Newfield" without much detention, owing to there being a landing way at this Station. The sea is making a breach on the north and south sides near the buildings, and a block is required at each place built up with timber, or logs filled in with stone to stop further washing away, or in a short time it will reach the foundation of both the dwelling-house and tower. The expense of repairs at present will not be over a hundred or two dollars, but if allowed to continue it will amount to very much more.

# SWALLOW TAIL (FIXED WHITE.)

Lat. 44° 45' 52" N.; Long. 64° 44' 0" W.

The supplies for this Station were landed from the "Newfield" 22nd August. This Station and its appurtenances are kept in the very best order. A small powder magazine is required to store the powder, which I observed was in the lighthouse building.

The boat having been damaged, I had her brought to St. Johns for repairs. She is too large and heavy for that Station. A light one is required to replace the one now here for repairs, and this one will become useful at one of the other Stations where the cliff is not high, such as Grand Harbour. The lighthouse tower will require painting next season.

#### PARTRIDGE ISLAND.

Lat. 45° 14' 20" N.; Long. 66° 3' 20" W.

There is a lighthouse, fog-whistle, and signal Station on this island. No extra expense has been incurred at this Station beyond the ordinary bills for maintenance, during the past year. Owing to a larger boiler having been added to the fog-whistle at this Station, the supply of water has been insufficient during the long continuence of foggy weather in the middle of summer. This deficiency has been supplied by water carried from the tide for the last year or two past. To avoid this expense in future, an additional well will be excavated this fall.

Mr. Patrick Carroll has been awarded the tender for erecting a brick building to

replace the old wooden building of the fog whistle now there.

The following is copy of a letter received from Mr. P. Carroll, with reference to changes made at the light station, at Bathurst:

"St. John, N.B., September, 1878.

"DEAR SIR,—Pursuant to instructions, dated at Ottawa, 22nd April, to proceed to Bathurst, N.B., as soon as I had finished works on hand, and carry out the recommendation contained in an accompanying Report of the Inspector of Lights for New Brunswick, I beg leave to state that I arrived at Bathurst on the 25th June, and called on T. E. O'Brien, Esq., and P. J. Hachey, Harbour Master, and as no opinion had been given as to the best means of raising each beacon ten feet, and they being already an imperfect piece of mechanism, on stormy nights shaking so much that the lights went out, I agreed with their concurrence to move the western tower off its foundation, still keeping it lighted, and erect in its stead a new tower the height required, and when the latter was lighted, move the western or old tower to the site occupied by the eastern or low tower, by this means the height asked for in the report has been effected, and without any interruption of the lights for an instant. This work is now completed, and the light in the new western tower stands 43 feet above high water, and is red striped. The light having a 20 inch reflector and mammoth flat-wick, I may remark that it is the most brilliant red light in your Agency, it is composed of strips of red glass four inches wide kept an inch apart in a frame showing very brilliant at a distance of 14 miles. The old western tower which is now moved to its present site, and strengthened, has its side door closed and a new stairs erected, and the passage is by a hatch in the floor, is painted white, is a white light having a 20-inch reflector, mammoth flat-wick, is a good light, gives full satisfaction to fishermen and others. The old tower is moved a distance of 100 yards in the shade of the keepers building to prevent it being seen by day from any approach from sea, it may be required at some other point, and many persons from Clifton have remarked that it would be well suited for the breakwater now being erected.

"Yours, &c.,

"(Signed) P. CARROLL,

"To J. H. Harding, Esq., Agent, Marine, &c."

### OIL.

The supply of oil for the lighthouses was purchased of Messrs. Fitzgerald; the number of gallons was 12,212, costing \$2,931.00. The quality is reported good by the keepers at the different stations. It is put up in good casks, and in every respect appears to be manufactured with care, and has the standard mark branded upon each cask, with its contents.

# OBSERVATORY, ST. JOHN, N.B.

The Observatory at this port is under charge of Mr. George Hutchinson, and the Signal Station under Mr. J. B. Longley. The Anchor Line warehouse has been used for this purpose during the past year. It was found that this position afforded better accommodation than at the warehouse of Messrs. Small & Hatheway. The Messrs. Scammell were kind enough to grant to the Department the privilege of using that building during their term, and also to allow their offices in that building to be occupied by Mr. Longley, in common, for which accommodation, so generously granted, the Department is indebted to the Messrs. Scammell, and, though they have made no formal charge, yet the Department having enjoyed the privilege for which they paid rent to the corporation, some remuneration at least should be tendered to Messrs. Scammell for the accommodation afforded for the public service. I am now informed that the building is now in the hands of the city corporation, and on learning this, I requested His Worship the Mayor to inform me what charge they intend making for the privilege afforded, to which I have not yet received any reply. It was expected that a signal staff and accommodation for Mr. Longley would have been provided on the building belonging to Mr. Davidson; this, however, has not been done, as there is some difficulty in securing the signal staff on the flat roof of this building, and as the other position is a more open and convenient one, it has been allowed to continue there up to the present time. I beg to append Mr. Longley's Report, ending the 20th September, 1878:-

St. John, N.B., 20th September, 1878.

Str.—In making my annual report for the year ending 20th September, ,1878, you will notice a large falling off in the number of vessels and tonnage compared with last year.

. 7	-•	Tonnage.
8	Steamers	4,729
71	Ships	89,613
	Barques	
4	Barkentines	1,245
15	Brigs	4,705
98	Brigantines	
26	Schooners, three-masted	5,988
	Total	195 195

Your obedient servant,

(Signed) JOHN B. LONGLEY.

J. H. Harding, Esq., Agent, Marine and Fisheries, St. John, N.B.

# ST. JOHN RIVER LIGHTS.

The following are the light stations in the St. John River district, situated at the following places:—Green Head, Mr. J. Williams, Keeper; Sand Point, Mr. James

Clark, Keeper; Oak Point, Mr. Chas. Theal, Keeper; No Man's Friend, Mr. Edmund Bussa, Keeper; Oromocto Shoals, Mr. James K. Hazen, Keeper; Wilmot's Bluff, Mr. J. D. Wilmot, Keeper; Robertson's Point, Mr. Samuel Robertson, Keeper; Fanjoy's Point, Mr. Wm. Fanjoy, Keeper; Cox's Point, Mr. M. Y. Cox, Keeper; Newcastle, Mr. Robert McMann, Keeper; Musquash Island, Mr. Daniel Smith, Keeper; Hendry's Point, Mr. Jos. Hendry, Keeper.

It is proposed to change the beacon light at the end of the mouth of the Oromocto, so as to range with the lights on Wilmot's Bluff, and, with the channel, to guide steamers and other vessels through the intricate passage between the Islands

at the mouth of the Oromocto River.

# HILLSBOROUGH, A. C.

The tower at this Station, which is on the end of the wharf near the rear of the Plaster Company's works has been repaired. The wharf had settled in consequence of the quantity of plaster stored upon it, and consequently gave the lighthouse a lean on one side, but it has been straightened up.

### FOG-WHISTLES.

There are eight fog-alarms on the southern and eastern coasts of our Province viz., at Partridge Island, Point Lepreaux, North Head on Grand Manan, Machias Seal Island, Cape Enrage and Grindstone Island in the Bay of Fundy, and at Point Escuminac and Point Miscou in the Gulf of St. Lawrence. Seven of these have been maintained in successful operation during the year. They have all been supplied with coal and all necessary supplies.

# NEW LIGHTHOUSES AND FOG-ALARMS.

Additional lighthouses and fog-alarms are to be erected at the following places, viz.:—

Lighthouse at South-West Head of Grand Manan;

Grand Harbour;

Eastern Head of Musquash Harbour; Range of lights at Richibucto Beach;

A lighthouse at Petite Roche, Gloucester;

A lighthouse at Salmon River, Grand Lake, and

A fog-trumpet at Petite Passage, County of Charlotte.

Applications have been made to have lighthouses erected at the following places, where they are reported to be much needed, viz.:—

At Little Shippegan Gully, in the County of Gloucester, and at Pokeshady, at

the entrance to the harbour of Big Shippegan and eastern entrance to Caraquet.

The inhabitants of Woodward's Cove, Grand Manan, request that a small lightmay be placed on one of the wharfs there to guide vessels into that harbour, and they would be at the expense of attending it.

A similar light is required at Seal Cove, which would also be attended without

any additional expense to the Department.

At Salmon River, Grand Lake, Queen's county, Petite Roche, county of Gloucester, eastern head of Musquash Harbour, St. John County. Range of lights on Richibucto Beach, County of Kent, south-west head of Grand Manan and Grand

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Harbour. A new lighthouse has been erected on Machias Seal Island, on the southesst side of the Island, to range with the light on the north-west side of the same, which will shortly be put in operation; notice of particulars have already been forwarded to the Department.

# BUOYS AND BEACONS.

### OLD PROPRIETOR.

Lat. 45° 33' 10" N.; Long. 66° 40' 0" W.

On my last visit of inspection in August, to the light stations, I was able to see this spindle from Gannet Rock Light. Mr. McLaughlin reports that he thinks it requires additional cement wedged between the spindle and the rock at its base. I directed him to attend to it, and I herewith send a copy of his Report on this subject.

Mr. McLaughlin reports as follows:—

"In accordance with instructions that I gave Mr. W. B. McLaughlin on the 2nd October last, he visited the above ledge with four men on the 15th and 16th October, and found the spindle listed to the northward, so that it leaves a space of some two or three inches between the foot of the spindle and the rock on the southerly side; they ran the blade of the oar down some two feet between the shaft and the rock. The sea ran so high that he could not make out whether the cementing had given way or not, but it is evident the spindle was loose in its socket. He also found that the spindle bent to the northward near the shoulder upon which the iron ball is placed. He further thinks that the spindle has been struck by some vessel, during one of the heavy gales last winter. The sea ran so high at the time, that it was impossible for him to paint the spindle at that time. The spindle was not listed enough to injure it, providing it is secured in the socket.

#### BELL BUOY.

This is situated off the eastern end of Partridge Island, at the entrance to the Port of St. John, an indispensible guide to vessels entering this port. The new mooring tackle provided last year has been attached, and the buoy has been safely moored in her proper position since. It requires painting, and the mooring again overhauled before winter. It would be well for the Department to have an automatic buoy at this position, and also at Split Rock.

#### ST. GEORGE.

The above named district, which is under the charge of Mr. James Dick, is very extensive. In addition to the River and Port of St. George, he has supervision of the West Isles, a district which has long been neglected, and one where buoys were more required than almost any other cove on our coast. Part of these Islands are frequented by fishermen, and many of the harbours are used by merchant vessels in lumber and other trades. There have been nine new buoys placed outside, where there was none before, and still a number is yet required. There are two buoys needed off Hatheway's Head to mark the sunken rocks which lay right in the middle of the channel. The first buoy is required to mark the ledge that lays in the mid channel between St. Helena and Deer Island; this ledge is bare two hours before low water. The second buoy is required off a chain of Ledges lying between Deer Island and the north-east point of Dinner Island, and is bare at low water. There is another buoy required off Pompey Ledge, at the north-east end of Bar Island, at the entrance to the North-West Harbour. A buoy is also required off the south-west ledge buoy requires to be large and firmly bedded, as it is most important, and cannot well of Dinner Island, to mark the channel leading into North-West Harbor. The last-named

be dispensed with. There is also a buoy required on a sunken ledge in North-West Harbour. The chain of No. 20 buoy broke, and the buoy was lost in June last, but was replaced with a new one at once. The buoy on the Little White Horse (No. 19) was carried away in July last, but was again secured; after being scraped and painted is now ready to be replaced. The delay has been caused by not being able to get a vessel to lighter it off. The buoy at Beaver Harbour, (No. 26) was carried away, and will have to be replaced by a new one. The above buoys have all been down five years, with the exception of No. 19, and the iron-work completely worn out-

#### ST. CROIX RIVER.

On the above river there will be three new buoys required, one on the upper St. Croix having been lost, and two near Doucet Island being worn out. I would also advise that a buoy be placed to show the end of the bar which makes off Mascarine Point, in L'Etete Passage, and also one on the half tide ledge situate opposite, in the passage, as both of these are dangers which require to be carefully avoided, as they are directly in the channel and have caused much damage. Also that the spar buoys at present in Bliss and Beaver Harbours, and on the ledge inside of the White Horse be replaced by much larger ones, as the present ones cannot be seen far enough to avoid danger.

#### SHEMOGUE.

After the buoys were placed the sea carried away the black buoy and red buoy. Mr. John Avard, the harbour master, had them picked up and replaced at a cost of \$10.

#### ST. ANDREWS.

Two days after the buoys were placed, some unknown schooner struck and carried away one which has been replaced. There are two buoys, No 1 and No. 4, which require to be new as the old ones are getting water logged. With reference to two upright beacons on the swashway, they are difficult to secure. I had replaced one, but in two days it was destroyed by a schooner running against it; I had to replace it by another; I got it done as reasonably as possible; I am trying to discover the vessel. The buoys and beacons are all in position.

Copy of a letter from A. McQuin, dated 11th October.

#### SHEDIAC BUOYS.

The gale of Friday, 9th October, carried away the buoy on the Zephyr Rock, the chain parted in the centre; it drifted to the Borchus shore, leaving about three fathoms of chain attached to the rock by which it was buoyed. I have had it brought here to the wharf, and, as soon as the weather will permit, I will have it replaced in its proper place again; I have had considerable trouble with them this season on account of the leakage in them which is caused by the worms eating the wood. I think that it would be desirable to have them another year sheathed with zinc or copper on the underneath part, for I have had to have the water drawn off several times this season.

#### SHEPODY RIVER.

The buoys were placed in their positions on the 1st May last. The harbour master reports that there are three more required for the safe navigation of the above river.

In concluding my Report for the past year, I beg to append the Report of Mr. James Mitchell, the Superintendent of Lights on the north shore and east coast of the Province, also under the supervision of this branch of the Department.

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

(Signed) J. H. HARDING.

Sir Albert J. Smith,
Minister of Marine and Fisheries, &c.,
Ottawa.

# DEPARTMENT OF MARINE AND FISHERIES, ST. JOHN, N.B.

Station	
H. McLaughlin Head Harbour do Campo Bello, do George Pendlebury St. Andrews do St. Andrews, do Grand Manan, do David Webster Machias Seal Island do Machias Seal Island do Robt Rivers Miscou do Miscou do Hardwick, Northumberland Co. Thomas Philips Escuminac do Bishibate Machias Seal Recuminac do Hardwick, Northumberland Co.	
H. McLaughlin Head Harbour do Campo Bello, do George Pendlebury Gannet Rock do Grand Manan, do David Webster Machias Seal Island do Machias Seal Island do Robt Rivers Miscou do Hardwick, Northumberland Co.  Thomas Philips Escuminac do Hardwick, Northumberland Co.  Fishibute Machias Seal Machias Seal Island do Hardwick, Northumberland Co.	
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H. McLaughlin Head Harbour do Campo Bello, do George Pendlebury St. Andrews do St. Andrews, do W. B. McLaughlin Gannet Rock do Grand Manan, do David Webster Machias Seal Island do Mechas Seal Island do Moring in do Botsford, Westmoreland Co. Robt. Rivers Miscou do Hardwick, Northumberland Co. Thomas Philips Escuminac do Hardwick, Northumberland Co.	
H. McLaughlin Head Harbour do Campo Bello, do George Pendlebury Gannet Rock do Grand Manan, do David Webster Machias Seal Island do Mester Mester do Miscou do Point Miscou, Gloucester Co.  Thomas Philips Escuminac do Hardwick, Northumberland Co.  Richias Seal Seal Sea Company of Cannot Miscou, Gloucester Co.  Thomas Philips Escuminac do Hardwick, Northumberland Co.	
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W. B. McLaughlin	
A. W. Bent	
A. W. Bent	
Thomas Philips	
Thomas Philips Escuminac do Point Miscou, Gloucester Co.  Hardwick, Northumberland Co.  Philips Piblich Port Co.	
Wood Williston Fox Island do Pardwick, Northumberland Co.	
Hugh Murray	i'd Co
M. Robinson Shediac Island do Shediac, Westmoreland Co.	
James Wilson Fog Alarm, Partridge Island St. John, N.B.	
Unit Porlier Caraquet Island Light Caraquet Glorester Co.	
J. N. Williams Green Head do Indiantown, St. John Co.	
Robt. Clarke Sand Point do Westfield, King's Co.	
Chas. Theal Oak Point do Round Hill, King's Co.	
Edmund Buzza	
J. D. Wilmott. Sluff do	
M. Y. Cox	
Geo. Grant Grant's Beach do Lower Newcastle, Miramichi Co.	
J. Coughlan Oak Point do Oak Point.	
Thomas Lewis	
Jarvis Clark Bliss Island do St. George Charlotte Co.	
Jarvis Clark Bliss Island do St. George, Charlotte Co. John Connors Bathurst do Bathurst, Gloucester Co. Louis Arsneaux Dalhousie do Dalhousie, Restigouche Co. Chas Le Blanc Cassies' Point do Shediac, Westmoreland Co. Wm. Archer Tracadie do Tracadie, Gloucester Co.	
Louis Arsneaux	
Chas Le Blanc	
Wm. Archer Tracadie do Tracadie, Gloucester Co. Francis H. Dumaresq Shippegan do Shippegan, do	
Francis H. Dumaresq Shippegan do Shippegan, do R. Reinsborrow Lower Fox Island do Lower Newcastle, Miramichi Co.	
John McKey Sheldreke island do 11 batham do	
Wm. Morrison	
Thos Savoy	
T. Daley	
David McEwen Middle Island do Chatham, Miramichi Co.	
Samuel Robertson	
Wm. Fanjoy Fanjoy's Point do	
Jas. Tatten Grand Manan do Grand Manan, Charlotte Co.	
Robt. Rivers Miscon do Point Miscon Gloucester Co.	
Thos. Philips Escuminac do Hardwick, Northumberland Co. W. S. Starratt Cape Enrage do Albert Co.	
W. S. Starratt	
Dalbousie, Kestigouche Co.  D. J. R. Robinhamy Google Lake do Shippegan Classecter Co.	
Abner Jones	
John Boyd Spruce Point do Parish Dufferin, Charlotte Co.	
Patrick Tomeys Mark's Point do do do	
James Ulark Passamaquoddy Bay do St. Andrews, Charlotte Co.	
John W. Diarmid Point Midiie do St. George Cherlotte Co.	
Ezra Munro Beaver Harbour do Charlotte Co.  John W. Diarmid Point Midjic do St. George, Charlotte Co.  Daniel Smith Mucquash Island do Washademoak Lake, Queen's Co.	
Thos. Philips	

DEPARTMENT of Marine and Fisheries, St. John, N.B.- Continued.

Keepers.	Station.	Post Office Address.
Joseph Forbes	Pokemouche, Wharf Light McManus Point South Tracadie Pea Point Grindstone Island Fog Alarm Negro Town Point Light	Gloucester Co. Charlotte Co. Hopewell, Albert Co.

NEWCASTLE, 27th August, 1878.

SIR,—I have the honour to report to you the following as carried out by me, under the Agency, during the past season:—

#### CAPE JOURIMAIN.

Lat. 46° 10' 0" N.; Long. 63° 48' 30" W.

(ARTHUR W. BENT, Keeper.)

This light has been changed from a fixed white light, and is now a revolving flash light, exhibiting a white light every ten seconds, and making a revolution every forty seconds, with illuminating catoptric apparatus, with four lamps and four reflectors.

The building has been thoroughly painted outside and inside, and is in perfecorder.

The necessary oil and other stores were landed at this Station 17th July, 1878.

#### SHEDIAC BEACONS.

Lat. 46° 15' 20" N.; Long, 64° 31' 50" W

(M. Robinson, Keeper.)

The lights at this Station are satisfactory; two No. 1 mammoth flat-wick lamps, exhibiting fixed white lights.

The necessary oil and stores were landed at this Station.

### CASSIE'S CAPE.

Lat. 46 19' 15" N.; Long. 64 30' 20" W.

# (CHARLES LEBLANC, Keeper.)

A revolving white light is exhibited at this Station, with four mammoth flatwick lamps; the illuminating apparatus is catoptric.

The building has been painted this season, and is in good order.
I visited this Station on the 18th July, 1878, and landed the oil and the usual small stores. A boat has also been supplied for the use of the keeper.

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#### RICHIBUCTO.

Lat 46° 30' 40" N.; Long. 64° 42' 30" W.

(FABIAN ROBICHEAU, Keeper.)

A fixed dioptric light is exhibited at this Station. The interior of the building is clean and in good order, but requires painting outside.

The usual supply of oil and small stores was landed on the 18th July.

Zao asias sappay

#### ESCUMINAC.

Lat. 47° 4' 32" N,; Long. 60° 47' 30" W.

(THOMAS PHILIPS, Keeper.)

A fixed dioptric white light is exhibited at this Station, with three mammoth circular-wick lamps.

There is a fog-alarm in connection with this light.

The usual supply of oil and small stores was landed on the 19th July.

The buildings at this Station are in good condition and well kept.

#### PORTAGE ISLAND.

Lat. 47° 8' 50" N.; Long. 65° 2' 40" W.

(HUGH MURRAY, Keeper.)

This Station exhibits a fixed white catoptric light with four lamps, with dual burners.

The necessary oil and small stores were landed: also paint and oil to paint the buildings.

This Station was visited on the 19th July.

A new lantern is much required here; the pilots grumble about this light; it is the fault of the lantern, the glass being too small, and shows a very ordinary light. The keeper does the best he can, but the light does not give satisfaction.

#### NEGUAC.

Lat. 40° 17' 47" N.; Long. 65 3' 20" W.

# (WILLIAM MORRISON, Keeper.)

A fixed catoptric white light is exhibited at this Station, with four mammoth flat-wick lamps.

There is a beacon exhibiting a white light in connection with this lighthouse, to mark the channel and enable vessels to navigate the Gulf in the night or during stormy weather.

The building is being painted; the necessary paint and oil has been supplied to

the keeper, as also oil and small stores for the use of the light.

This Station was visited on the 19th July, and found in good order

#### TABUSINTAC.

Lat. 47° 18' 54" N.; Long. 64° 59' 30" W.

(THOMAS SAVOY, Keeper.)

There is exhibited at this Station a fixed catoptric red light, with three mammoth flat-wick lamps.

A beacon exhibiting a fixed white light is in connection with this light.

This Station was visited on the 19th July, and oil and stores for the use of the light were landed. The lamps were in good order.

#### SOUTH TRACADIE.

Lat. 47° 30' 5" N.; Long. 64° 53' 0" W.

(JOSEPH FORBES, Keeper.).

There are two lights at this Station, situated on the north side of the Gully. The front light is a fixed white catoptric, with a mammoth flat-wick lamp.

The back light exhibits a fixed red catoptric light, elevated 26 feet above highwater.

This Station was visited on the 19th July, and the necessary oil and small stores were landed. The lights are in good order.

### NORTH TRACADIE.

Lat. 47° 30' 0" N.; Long. 64° 52' 0" W

(WILLIAM ARCHER, Keeper.)

A fixed white light is exhibited at this Station, with four mammoth flat-wick lamps,

There is a beacon in connection with this light, exhibiting a fixed white light.

This Station was visited on the 19th of July, and the usual oil and small storeswere landed.

The lights are in good order, and the keeper, William Archer, was at his post as usual.

#### POKEMOUCHE.

Lat. 47° 40' 5" N.; Long. 64° 45' 5" W.

# (PHILIP ROBICHEAU, Keeper.)

There are at this Station five lamps—three No. 2 circular, and two mammoth flat-wick lamps, exhibiting a green light; five reflectors—three of these 18½ inches, and two 17½ inches diameter.

This Station was visited on the 19th July, 1878, when the necessary oils and

small stores were landed.

The buildings and lamps are in good order, and the lighthouse is being

painted.

The heavy gales of wind are undermining the building, and it will be necessary to plank it round to keep the sand from blowing away. There is at present a large excavation close to the building, and the keeper intends using means to prevent further damage.

95

#### SHIPPEGAN.

Lat 47° 43' 0" N.: Long. 64° 38' 0" W

(Francis Dumaresque, Keeper.)

I visited this Station on the 19th July and found the lights in good order, but the building required painting.

The keeper was at his post, and keeps the lights much better than formerly.

The necessary oil and supplies were landed.

#### DALHOUSIE.

Lat. 48° 3' 45" N,; Long. 66° 20' 50" W.

(PHILIP ARSINEAU, Keeper.)

This Station was visited on the 21st July, and I found the lighthouse in good order.

One of the lamps required some repairs, which I attended. The reflectors were bright and clear.

The necessary oil and small stores were furnished to the keeper.

The oil store recommended in my last report has not been built, although much

A boat has also been furnished to the keeper of this Station.

### HERON ISLAND.

Lat. 48° 0' 0" N.; Long. 66° 8' 0" W.

(Dutch, Keeper.)

A fixed white light is exhibited at this Station; three mammoth flat-wick lamps were in the lantern.

The keeper is very attentive, and his lamps and reflectors in good order.

The necessary oil and stores were landed on the 23rd July.

The building will require painting next spring.

A boat has been furnished the keeper for the use of this light station.

#### CARAQUET.

Lat. 47° 49' 40" N.; Long. 65° 54' 0" W.

I visited this Station on the 24th July, and found the lights and building in good order.

This light is kept by Mrs. Porlier, the widow of the late keeper, Narcisse Porlier,

who performs the duties satisfactorily.

The house has had a good deal of repairs, and is now in good order.

The usual supply of oil and small stores was delivered to the keeper.

A boat has been supplied the keeper for the use of this Station this season.

#### GOOSE LAKE.

Lat. 47° 55' 43" N.; Long. 64° 35' 40" W.

# (D. J. B. Robicheau, Keeper.)

There is a revolving white light exhibited at this Station, with two No. 1 circular-wick lamps.

This Station is in good order, and gives general satisfaction.

The necessary oil and small stores were landed here.

#### MISCOU.

Lat. 48° 1' 0" N.; Long. 64° 29' 25" W.

# (ROBERT RIVERS, Keeper.)

There is a fixed red light exhibited here.

I visited this Station on the 24th July, and found the buildings clean and everything in good order. The fog-alarm I also found in good order.

The usual supply of oil and other necessary stores were landed.

## BEACONS.

There are 21 beacon lights on the Miramichi River and Bays situate as follows:-

#### MIDDLE ISLAND.

Lat. 47° 0' 3" N.; Long. 65° 19' 9" W.

# (DAVID McEWAN, Keeper.)

There is a fixed white light at this place; two mammoth flat-wick lamps shewing east and west.

I found everything here in good order, and landed the necessary oil and stores.

#### GRANT'S BEACONS.

Lat. 47° 5' 30" N.; Long. 65° 28' 10" W.

# (GEORGE GRANT, Keeper.)

There are two fixed white lights, one of which stands on the Innes property. I landed the usual supply of oil and stores, and found everything in excellent order.

#### SHELDRAKE ISLAND.

Lat. 47° 6' 50" N.; Long. 65° 18' 0" Wi

# (JOHN McKAY, Keeper.)

There are two fixed white beacon lights here with mammoth flat-wick lamps, shewing a very bright light.

I found everything in good order, and landed the usual supply of oil and stores.

### OAK POINT.

Lat. 47° 7' 40' N.; Long. 65° 15' 10" W

(JOSEPH COUGHLAN, Keeper.)

This Station is on the north side of the Miramichi, and exhibits two fixed beacon white lights.

Everything was in perfect order, and the usual supply of oil and stores were

landed.

#### UPPER FOX ISLAND.

Lat. 47° 8' 10" N.; Long \$5° 2' 30" W.

(WOOD WILLISTON, Keeper.)

Two fixed white beacon lights are exhibited here. I found everything in excellent order, and landed the necessary supplies.

#### LOWER FOX ISLAND.

Lat. 47° 6' 50" N.; Long. 65° 0' 10" W.

Two fixed beacon white lights are shewn at this Station.

I found these lights to be in perfectly good order, and landed the usual supply of oil and other necessaries.

### PRESTON'S BEACONS.

Lat. 47° 5' 40" N.; Long. 65° 54' 40" W.

There are two beacon fixed white lights exhibited here, with two mammoth flat-wick lamps in each.

I found everything in good order, and landed the usual supply of small stores

and oil.

The other four beacon lights, making the number of twenty-one previously mentioned being in connection with, the Neguac, Tabusintac, Tracadie, and South Tracadie Gully Lighthouses.

### MIRAMICHI LIGHTSHIP.

Lat. 47º 8' 0" N.

This vessel, which is in charge of Mr. Timothy Daly and another hand, exhibits four fixed red lights; is placed on the Horse Shoe Bar in the Miramichi, and is of great service to navigation.

# MARINE HOSPITAL

There has been nothing expended this year beyond the necessary expenses for wages, maintenance, and cleaning the building.

The back, east and west ends stand much in need of pointing, and it would be desirable to have it done before the cold weather sets in, as the mortar adheres better in warm weather.

All the Stations mentioned in my last Report as requiring boats have been

furnished with them.

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

(Signed)

J. MITCHELL, Superintendent of Lights.

J. H. Harding, Esq., Agent, Department of Marine and Fisheries, St. John, N.B.

# APPENDIX No. 3.

REPORT OF THE SUPERINTENDENT OF LIGHTS FOR THE DISTRICT ABOVE MONTREAL ON A TOUR OF INSPECTION IN THE STEAMSHIP "CELTIC" FOR THE YEAR 1878.

WESTBROOK, 14th October, 1878.

Sir,—In accordance with your instructions, I beg to forward herewith a detailed Report of my annual tour of supply and inspection to the lighthouses between Montreal and Fort William, on Lake Superior.

I am, Sir, Your obedient servant,

(Signed) DARIUS SMITH, Superintendent of Lighthouses.

WM SMITH, Esq.,
Deputy Minister of Marine,
Ottawa.

June 29th, 1878.—Received on board the steamship "Celtic," at Montreal, 192 barrels of coal oil and other necessary stores for the supply of the lighthouses above Montreal, and on Saturday, 29th June, at 10 p.m., cast off from the wharf and proceeded up the Lachine Canal. At 2.30 a.m., made fast, and remained until the 1st July at 3 a.m., when we commenced and supplied No. 1 light on the Pier at Lachine.

#### LACHINE PIER.

This lighthouse is built on the end of the Lachine Canal Pier; is a square wooden tower, painted white. It contains one No. 1 base-burner lamp, of the catoptric order, with one 15-inch reflector. The lantern is constructed of iron, and is 3 feet 6 inches in diameter. 76 gallons of oil, with other necessary stores, were supplied to this Station.

This lighthouse and iron light-vessel, under Mr. John Norton's care, are very well kept. He has no family.

The size of glass of lantern is  $15\frac{1}{2} \times 13$  inches.

### NO. 2 LIGHTSHIP.

On 1st July, at 4.15 a.m., supplied this light-vessel with oil and other stores. This is an iron light-vessel, painted red, with a white circular tower, showing a white fixed light of the catoptric order. The tower is 20 feet above the water, and the lantern is five feet in diameter; it contains three No. 1 base-burner lamps, with 15-inch reflectors. Size of glass 24 x 15 inches.

100

Olivier Madore is the keeper, whose family consist of six-wife and five children.

A new cover for the house on deck is required, as the old one leaks badly, and the deck requires slight repairs. A storm pane is required to protect glass from birds and storms.

This vessel and light is very well kept.

# NO. 1, OTTAWA RIVER.

Arrived here on the 1st July and supplied the stores. This lighthouse stands on a pier, and is a square wooden tower, 33 feet above the water, showing a white fixed light of the catoptric order; it burns three mammoth flat-wick lamps, with 17-inch reflectors, and is kept in good order by Benjamin Glode, the keeper, who has a family of three—wife and two children. The size of the lantern is 6 feet 6 inches in diameter, constructed of iron; size of glass, 35 x 39 inches.

The pier on which this lighthouse is placed has been moved by the ice 20 to 25

The pier on which this lighthouse is placed has been moved by the ice 20 to 25 feet to the eastward; a new pier should be built to the westward of the present one,

and the lighthouse removed on to it.

# NO 2, OTTAWA RIVER.

Visited this Station on the 1st July, and found everything in good order. Landed the oil and stores required. This is a white square wooden tower, standing on a pier; the lantern is 4 feet 6 inches in diameter, and constructed of iron, containing two No. 1 flat-wick lamps, with two 15-inch reflectors.

Moise LeClaire is keeper, who has a wife and five children.

The lighthouse requires painting, and thirty toise of stone are required to protect the pier from injury by ice; a new floor is required on the pier,  $20 \times 16$  feet, of 2-ineh plank.

### NO. 3 LIGHTSHIP. CHATEAUGUAY.

This vessel is constructed of iron, and painted red. The tower is 20 feet high, and painted white, with red top. The lantern is 6 feet in diameter, containing two No. 1 flat-wick lamps, with 15-inch reflectors, and is kept in very good order.

Olivier Madore is keeper, whose family numbers

The repairs required are a portion of the new deck in midships on the main deck. I would recommend that the lightships should be hauled out of the water this fall, their bottoms scraped, and painted with two coats of red lead, and the insides of the vessels be also scraped and well painted where it can be done.

## BEAUHARNOIS RANGE LIGHTS.

Supplied this Station on 1st July with the necessary supplies. It is a white square tower, 50 feet above the water, and shows a fixed white catoptric light, from an iron lantern, 6 feet in diameter, containing two No. 1 flat-wick lamps, with 15-inch reflectors, and is kept in very good order. The glass is 16 x 14 inches; the base of tower 15 feet 4 inches square.

Joseph Meloche is keeper, who has a family of eight—wife and seven children.

No repairs are required at this Station.

# RANGE LIGHT.

This light is the same as the previous one, and kept by the same keeper. The lantern is 6 feet in diameter, and constructed of iron; contains two No. 1 lamps, with 16 inch reflectors; the lighthouse is kept in very good order, and no repairs are required this season. Size of glass of lantern is 14 x 16 inches.

#### GROSS POINT.

Arrived here and supplied this Station on the 1st July, and found everything clean and in good order; this is a square wooden tower painted red, showing a white catoptric fixed light from an iron lantern 3 feet 6 inches in diameter, having three No. 1 flat-wick lamps, and three 15-inch reflectors which can be seen six miles.

Wm. Shannon, the keeper, has a family of six, composed of a wife and five children. The pier on which this lighthouse stands requires extensive repairs. It is 57 feet in length, by 36 feet wide; it requires 300 toise of stone to protect it from the sea. The red light placed on the shore requires a new top and platform, as the top is rusted away; the keeper was instructed to have the repairs done to the lighthouse.

#### COTEAU LANDING.

This Station was visited on the 1st July, at 6 p.m., and supplied with oil and other supplies. This is a white square tower, built of wood with an iron lantern five feet in diameter, containing three mammoth flat-wick lamps, with 16 inch reflectors, shewing a fixed white catoptric light 28 feet high.

E. Prieur is keeper; he has a family of nine. This light is kept in very good

order.

#### MCKIE'S POINT,

Arrived at this lighthouse on the 1st July, at 6 p.m., and delivered the necessary stores; it is a white square wooden tower, with an iron lantern 4 feet 6 inches in diameter, with three Silber burners and 17 inch reflectors, and can be seen 11 miles. It is kept in very good order by Alexander McDonald; his family consists of eight. The lighthouse and dwelling require painting.

I would recommend that the burners at this Station be changed to mammoth flat-wick burners, as the keeper has a great deal of trouble with the ones at present-

in use.

### PORT LEVIS.

July 1st, at 10 p.m., arrived at Port Levis lighthouse. It is a square white wooden tower 35 feet above the water, and shows a white fixed catoptric light from an iron lantern 6 feet in diameter, having three mammoth flat-wick lamps with a 16 inch reflector. The size of the glass is  $20\frac{1}{2} \times 19$  inches; it is kept in very good order. E. S. Johnston is keeper, whose family consist of nine, eight children and wife. The repairs required are new posts to lighthouse, new girts and floor. Keeper instructed to have repairs done immediately.

#### LANCASTER BAR.

Arrived at this lighthouse at midnight of the 1st July, and delivered the supplies. This is a wooden tower painted white, with an iron lantern 3 feet 6 inches in diameter, showing a fixed white catoptric light; it stands on a pier; the lantern contains two mammeth flat-wick lamps, with 17 inch reflectors; it is kept in a very clean and orderly manner. Thomas Henry is keeper; he has no family. No repairs are required at this Station this season.

# LANCASTER PIER.

Served this Station with supplies at 2 a.m., 2nd July. It is a white square wooden tower 20 feet high from base to vane. The lantern is iron, 6 feet in diameter, and contains three No. 1 base-burner lamps, and two 17-inch reflectors; one lamp has no reflector.

This Station is kept in very good order; it is kept by the same keeps as at Lancaster Bar.

The lighthouse requires painting.

#### HAMILTON'S ISLAND.

Visited and inspected this Station on the morning of the 2nd of July, and found every thing clean and in good order. The tower is a white square building, 42 feet above the water; the lantern is built of wood, 6 feet in diameter, containing three mammoth flat-wick lamps, with 20-inch reflectors, and should be seen 10 miles clear weather. The lighthouse requires painting; a new cover for the deck of lighthouse is also wanted, the old one is worn out.

John Hamilton is the keeper; has no family.

#### STONEHOUSE POINT.

Supplied this lighthouse with oil and stores on the 2nd July; it is a white wooden building 42 feet high above the water from the centre of the lantern; the lantern is of iron, 6 feet in diameter; it has two flat-wick lamps, with 18-inch reflectors; size of glass of lantern, 36 x 30 inches. No repairs except painting required. Kenneth McLaughlin is keeper; has a family of eight children.

The Station is in very good order.

#### WINDMILL POINT.

Arrived off this Station on the 2nd July, and delivered the required supplies This is a circular stone tower 92 feet above the water, and shows a fixed white catoptric light, from an iron lantern 7 feet in diameter, having three mammoth flatwick lamps, with 16-inch reflectors; size of glass 36 x 26 inches.

The deck of lantern requires to be renewed; it is worn out in several places; also a new grating for the deck. The lighthouse requires painting and whitewashing.

Bernard Kean, the keeper, has a family of three. This Station is excellently

kept.

At 2 a.m. called at Prescott wharf, and shipped the oil tanks that had been shipped from Ottawa, also the drip tins and tank stands. They were all in very good order and condition. We left Prescott at 4 a.m.

# COLE'S SHOALS.

Arrived here on the 3rd July, and landed stores for the lighthouse; it is built on a pier, and is a white square wooden building, 33 feet above the water from centre of lantern, and shows a fixed white catoptric light, from an iron lantern 6 feet in diameter, having three No. 1 base-burners, with two 18-inch and one 14-inch reflectors, and should be seen 6 miles.

Twenty-five loads of stone are required for the pier. The lighthouse requires

painting; it is kept in fair condition.

Richard Elliot, the keeper, has three of a family.

# GRENADIERS ISLAND.

Visited and supplied this Station on 3rd July, at 9 a.m. It is a white square wooden tower, 55 feet high from centre of lantern to the water, and shows a white fixed catoptric light from an iron lantern, 6 feet in diameter, burning three No. 1 base-burner lamps, with 13-inch reflectors; the lighthouse and every thing is kept in very good order. It requires painting. Size of glass, 16 x 14 inches.

# Albert Root, keeper, has a family of 14-13 children and wife.

#### LINDOC ISLAND.

Arrived here on the 3rd July; it is a white square wooden tower, 40 feet above the water, and shows a fixed white catoptric light, which can be seen 6 miles. The

lantern is of iron, 3 feet 6 inches in diameter, and contains three No. 1 base-burner lamps, with 13-inch reflectors. The lighthouse and dwelling require painting; the dwelling requires 58 feet of eaves troughs. Mr. Wallace, the keeper, has furnished 1,000 feet of lumber for a store house.

The lighthouse and premises are in very good order

The family of the keeper, are thirteen in number—wife and twelve children.

# GANANOQUE NARROWS.

Arrived off this Station on July 3rd; supplied the stores and oil. The building is a white square tower, showing fixed light, 44 feet above the water. The lantern is of iron, 5 feet 6 inches in diameter, and has three No. 1 base-burner lamps, with 14-inch reflectors. This light is kept in very good order. Cornelius Cook is keeper; has a family of two children and wife,

### JACK STRAW SHOAL.

This lighthouse is placed on a pier, which is in a very rotten condition, and is kept by the same keeper as Gananoque Narrows Light, and is in all respects the same.

The keeper reports that parties encamp on the Island, and make fires, and that he has no authority to put a stop to the practice or prevent it. It is very dangerous during dry weather to this Station. Size of glass of lantern 30 x 36 inches; it is kept in very good order.

### SPECTACLE SHOAL AND RED HOUSE ROCK.

On the 3rd July, at 2·15 p.m., arrived at this Station, and found everything clean and in very good order. This is a white fixed light of the catoptric order, 28 feet above the level of the lake; it has an iron lantern, 3 feet 6 inches in diameter, and burns two mammoth flat-wick lamps, with 16 inch reflectors. The deck of the pier requires repairs; the lighthouse wants painting. Size of glass 16 x 14 inches. John Buck is keeper, who has a family of four.

# BURNT 18LAND.

Arrived at Burnt Island on 3rd July, at 4 p.m., and landed supplies. This is a white fixed catoptric light, shown from a tower 64 feet above the level of the lake, and should be seen 10 miles. The lantern is of iron 3 feet 6 inches in diameter, and contains three No. 1 base-burner lamps, with two 13-inch reflectors. The lighthouse is kept in good order.

Colin Turcott is keeper; he has a wife and five children.

The props of the lighthouse are rotten. 2,000 feet of fencing and 120 pickets are required to fence off the property.

# WOLFE ISLAND.

The "Celtic" arrived off the lighthouse on the 3rl July, at 6 p.m., and landed oil and supplies. This is a white square wooden tower, with an iron lantern, 6 feet in diameter, containing three No. 1 base-burner lamps, with 16-inch reflectors. Size of glass, 16 x 13½ inches. The Station is kept in very good order.

The repairs required are: Deck of lantern wants re-covering; a new vane required for the lantern; slight repairs to floor of lighthouse, and lighthouse painted.

Robert Gillespie is keeper, who has a wife and three children.

# BROWN'S POINT.

Arrived here on the 3rd July. The lighthouse is a white square wooden tower, 28 feet from base to vane, showing a white fixed catoptric light, from an iron lantern,

6 feet in diameter, and contains four mammoth flat-wick lamps, with 19-inch reflectors, and it should be seen 10 miles.

Size of glass of lantern, 36 x 30 inches. Mr. McAvoy is keeper, who keeps it in

very good order. Married. No children.

Four panes of glass are wanted for the lantern. Lighthouse wants painting. There are two acres of land attached to this Station, which require fencing; also the road leading to the main road should be fenced in.

Mr. McAvoy has sub-let the lighthouse and premises to Thomas Sturdy, who is at present in charge, and appears to be a very suitable person to have charge of a

lighthouse.

The steamer "Celtic" arrived at Kingston at 8 p.m. on the 3rd July, and remained until the 4th. Received on board 30 barrels of oil, and left on the morning of the 4th for

# SNAKE ISLAND,

where we arrived at 2 p.m., and found everything in very good order. This is a white square stone building, with dwelling-house attached. It shows a fixed red catoptric light, 35 feet above the level of the lake. The lantern is 6 feet in diameter, and constructed of iron, and contains six No. 1 base-burner lamps, with three 16-inch and three 19-inch reflectors. Size of glass,  $16\frac{1}{2} \times 14$  inches.

The floor of the lantern requires to be re-leaded and the deck outside requires re-covering, as it leaks; weather vane requires repairs, as it will not work. Keeper instructed to send it to Kingston for repairs at once.

Nathaniel Orr is keeper, and has a family of ten, which consist of wife and nine children.

#### NINE MILE POINT.

Arrived here at 3.30 p.m., July 4th, and inspected the Station and supplied oil and other stores. It is a white circular stone tower, 40 feet from base to vane in height, having an iron lantern 8 feet in diameter; it has seven mammoth flat-wick lamps, with 18-inch reflectors, and should be seen a distance of 15 miles. It shows a white fixed catoptric light. Size of glass at the lantern is 12 x 141 inches. light is much obstructed by the smallness of the glass.

The top of the lantern requires painting. There is a bell tower attached to this Station, which is in very good order; the tower requires painting; weight of bell,

960 lbs.

The breakwater for the protection of the lighthouse is in a very poor condition, and fast going to decay; 200 cords of stone are required for the breakwater. Dunlop, the keeper, was instructed to procure material to fence the property of the Government. Mr. Dunlop will do the work.

This Station is exceedingly well kept. The family number six.

#### PIGEON ISLAND.

July 4th, 5.30 p.m., visited and inspected the lighthouse and premises, and sup-

plied oil and other stores required.

This lighthouse is a white wooden building, with dwelling-house attached, and is 41 feet from base to vane in height. The lantern is constructed of iron, 4 feet in diameter, and contains two mammoth flat-wick lamps, with 20-inch reflectors. This light revolves in one minute and ten seconds, and is in good order.

The revolving apparatus works well and is kept clean.

I have examined the bort at this Station, and I consider she can be repaired at a small cost, the sills are old and worn out; a boat is absolutely necessary at this place on account of its isolation.

Mary Davis is the keeper; she has a family of ten young children.

#### PCINT PLEASANT.

Arrived off this Station on 4th July, at 8.40 p.m.,; found everything in very good order and cleanly kept. This is an octagonal tower, painted white, and is 32 feet from base to vane. The lantern is of iron, 5 feet 6 inches in diameter, containsnine No. 1 base-burner lamps, with 16-inch reflectors. This light should be seen 15 miles.

The lighthouse is being underpinned with stone piers, it also requires painting. The repairs were in progress at the time of our visit, and were progressing very favourably.

John Prinyer is keeper, who has a family of three.

#### FALSE DUCKS.

We arrived at the False Ducks at 11.40 p.m., 4th July. This is a white st one circular tower, 62 feet high from base to vane, showing white fixed catoptric light, from an iron lantern 8 feet in diameter, having fifteen No. 1 base-burner lamps, with 15-inch reflectors, and can be seen 20 miles. Size of glass 12 x 14 smallness of which greatly obstructs the light.

The railing outside the lantern requires repairs, and an iron ladder is wanted to enable the keeper to get on the top of lantern; the stairs of the lighthouse require some repairs. Floor and roof of dwelling want repairs. The verandah of house wants some repairs. Lighthouse wants whitewashing and painting.

Frederick Swetman is keeper, who keeps the Station in very good order, he has a family of six.

# LONG POINT, POINT PETER.

The steamer arrived here on the 5th July. This is a circular stone tower, 60 feet high from base to vane, and shows a revolving light every 40 seconds, and is of the catoptric order. The lantern is of iron 8 feet in diameter, and contains ten No. 1 dual-burner lamps, with  $10 \times 14$ -inch reflectors, and should be seen 21 miles in clear weather. The size of the glass of the lantern is  $12 \times 14$  inches, which is too small.

Mr. Buckingham is keeper, and everything is in very good order.

The vane of lantern requires repairs; the platform leading to the house is very much out of repair, and on dark nights is dangerous; the frame of the platform is rotten; 1500 feet of lumber will be required for repairs; keeper will do repairing.

#### SALMON POINT.

Arrived at Salmon Point on the 5th July, at 9 a.m., and landed supplies. This tower is of wood painted white; it shows a red fixed light of the catoptric order; the tower is 30 feet high from base to vane, and it has been supplied with a new lantern during the last closed season, which is a great improvement; the lantern is 8 feet in diameter, and contains three Silber No. 1 burner lamps, and two mammoth flatwick lamps, with 18 inch reflectors; this light should be seen 12 miles in clear weather. Size of ruby glass,  $20\frac{1}{2} \times 20$  inches.

weather. Size of ruby glass,  $20\frac{1}{2} \times 20$  inches.

1000 feet of lumber required for a storehouse, the keeper will erect the building. A fence is required round the Government property, a wire one recommended, as

it will not be so liable to be broken by the sea as a wooden one.

This is also a life-boat station. I inspected the boat, which is a metal one, and found it in good order, with all gear in its place and ready for use.

Peter Huff is keeper at this Station, and keeps everything in excellent order.

# SCOTCH BONNET.

Arrived at this lighthouse on the 5th July; it is a white stone building, 54 feet high from base to vane; it shows a white fixed catoptric light, and can be seen 20 106

miles in clear weather; the lantern is of iron, 7 feet in diameter, and contains ten lamps, six mammoth flat-wick and four No. 1 base-burners with ten 14 inch reflec-

tors. Size of glass 14½ x 18 inches.

This wants pointing and whitewashing; lantern requires repairs, as it leaks, A new boat is required at this Station; keeper states he can procure a suitable boat for \$45, with centre board and sail. A new fog-horn is wanted, as the old one is worn

Robert Pye is keeper, who has a family of three; he keeps everything in very good order.

## PRESQU'ISLE MAIN LIGHT.

5th July the steamer arrived at this Station, at 4.15 p.m. This is a whiteoctagonal stone tower, 63 feet high from base to vane. The diameter of the lantern is 9 feet; it is constructed of iron and has ten No. 1 base-burner lamps, with six 15-inch and four 12-inch reflectors, and shows a white fixed catoptric light, which should be seen at a distance of 15 miles; size of glass, 12 x 13 inches. The fence around the property is very old and decayed, and requires renewing. The lighthouse requires pointing and whitewashing; no other repairs are required.

Wm. H. Sherwood is keeper; who keeps the premises in very good order; his

family consist of a wife and three children.

# PRESQU'ISLE RANGE LIGHTS

Are four in number, two for the old channel and two to lead between the buoys by the new channel. They are all in charge of George B. Simpson, who keeps them in first rate order. Three are square white towers, the corners of which are painted brown, constructed of wood. The size of the lanterns are 3 feet 3 inches, with one No. 1 base-burner lamp in each, with 15 inch reflectors. They require some repairs; the plaster has fallen off, and they require painting. I would recommend that they be ceiled with wood instead of being plastered.

The triangular gallows work which ranges with Salt Point, shows a very good light, and of great service to vessels coming in through the buoys. The keeper was

instructed to have the buoys placed properly, as he had them placed wrongly.

#### WELLER'S BAY RANGE LIGHTS.

Arrived here on the afternoon of the 5th July. These are two new lighthouses built for the purpose of guiding vessels into the Bay. They are 27 and 37 feet high, from base to vane, and show the front lighthouse a red fixed light, and the back one a fixed white. The lanterns are of galvanized iron, 4 feet square, and contain one mammoth flat-wick lamp, with 18-iuch reflectors. Size of glass is 30 x 30 inches, the ruby glass in front lighthouse 19½ x 19 inches. Reuben Young, the keeper, has every thing in good order.

The land that is required around this Station is near six acres; two roads are necessary, one to the beach and the other from the front lighthouse to the back one, and from 30 feet in rear of each lighthouse at right angles from front road to the main

public highway.

A new house has been built on this property during 1876 and 1877, 28 x 20 feet, well finished enclosed by a good board fence, with a garden of about three quarters of an acre. The house contains four rooms on the ground floor and three bed-rooms, there is also a good shed on the premises. I would recommend the land to be surveyed and the roads constructed.

#### GULL BOCK.

Arrived at Gull Rock Lighthouse at 3 a.m., 6th July, and landed supplies. lighthouse is a stone circular tower, 48 feet high from base to vane; it is surrounded by a pier built on the rock. The lantern is 8 feet in diameter constructed of iron, sixteen lamps, seven mammoth flat-wick and nine No. 1 base-burner lamps, with 17-inch reflectors, and shows a fixed white light, which can be seen 20 miles.

This lighthouse is kept in excellent order. Robert Roddick, the keeper, has a

family of seven.

The ventilator requires repairs; instructed the keeper to have it repaired as soon

as possible.

During last closed season a new oil house has been constructed at this Station, on the breakwater; it is 19 feet 10 inches long, by 9 feet 10 inches wide, and is of great service, as it relieves the lighthouse of the tanks that were placed in it, thus lessening the danger from fire.

The piers at Gull Rock required extensive repairs, 10 toise of stone ordered last year were put in the piers; the repairs are going on as fast as the weather will allow. The main pier around the lighthouse will require replanking as the deck is quite rotten; some oak planking is required on outside of piers to protect them from ice. The lighthouse requires pointing and whitewashing; a boat house for keepers use is much wanted on the main shore. A new lantern for this lighthouse is very much required.

#### PORT DARLINGTON.

On the 6th July the steamer arrived at Port Darlington. The light tower is built on the top of a warehouse on the wharf, and shows a red and white catoptric light, which can be seen 6 miles. The lantern is of iron, 4 feet 6 inches in diameter, and contains four No. 2 sun-burner lamps with no reflectors; the height of the light is 42 feet from centre of light to the wharf. The whole building wants whitewashing. I would consider it very liable to fire from the nature of the goods stored in the building.

The lighthouse is kept in a very poor condition.

Size of glass is 20 x 30 inches.

John McLellan is keeper, who has a family of four.

# FRENCHMAN'S BAY.

The steamer arrived here on the 6th July; I found everything very clean and in

good order.

This is an octagonal wooden tower, painted white; it stands on the end of a pier, which has sunk on the north-east side, giving the tower a list in that direction; it shows a fixed white catoptric light, from a wooden lantern, 5 feet in diameter, containing four glass lamps, suspended from the top in a chandelier from roof of lantern, with two 15-inch and two 10-inch reflectors, and should be seen ten miles; size of glass, 24 by 36 inches.

A new set of lamps and proper table for lamps are required for this lighthouse.

The top of lantern leaks and requires repairs.

The pier and lighthouse require immediate attention.

James McClellan has a family of six.

#### GIBRALTER POINT.

Arrived at Gibralter Point at 6 p.m., 6th July, and supplied the Station with oil and other stores. This is a white stone circular tower, 62 feet from base to vane, and shows a fixed white catoptric light, which can be seen 20 miles in clear weather. The lantern is of iron, 8 feet in diameter, containing eleven mammoth flat-wick lamps, with two 20-inch and nine 16-inch reflectors. There is a bell tower connected with this Station; weight of the bell is 960 lbs. The machinery is in very good condition.

Everything in connection with this Station is in first-rate order.

The lighthouse wants pointing and whitewashing. The bell tower wants painting. The lantern of this lighthouse is in a poor condition from age and rust, and in many places it is nearly eaten away; a new one is much required.

The size of glass is 13 x 15 inches, and very much obstructs the light by being so small.

George Durnan is the keeper; he has a family of eight.

#### OAKVILLE.

The steamer arrived here on 6th July, at 11.40 p.m. This lighthouse stands on a pier and is a wooden building, painted white, showing a white fixed catoptric light, from an iron lantern, 6 feet in diameter, and has four No. 1 base-burner lamps, with 15-inch reflectors; size of glass, 12 x 16 inches.

Robert Chisholm, the keeper, has everything in very good order; his family

consists of seven persons.

#### BURLINGTON CANAL.

We arrived here at 2 a.m., 7th July, and inspected the Station; landed supplies. It is a stone circular white lighthouse, 54 feet in height from base to vane, with an iron lantern 9 feet in diameter, and has six No. 1 base-burner lamps, with 25 inch reflectors, and the light should be seen 20 miles in clear weather.

There is also a lighthouse placed on the end of the pier at the entrance to the Canal, which is built of wood, showing a fixed white light of the catoptric order, from a lantern 3 feet 6 inches in diameter, and contains two No. 1 base-burner

lamps, with one 25-inch and one 15-inch reflectors.

Both these Stations are kept in very good order by Thomas Campbell, the

keeper, who has a family of three.

The main lighthouse requires all new lamps, as those in use are worn out. The size of glass in the lantern is  $17\frac{1}{4} \times 14\frac{1}{5}$  inches. This lighthouse requires pointing and whitewashing.

New lamps are also required at the light on the pier; also a new cover for the

deck of the lighthouse; the one on is worn out.

Arrived at Hamilton at 5 a.m. 7th July, and on the 8th received on board the steamship "Celtic" 120 barrels of coal oil from the Great Western Railway Company's dock, and left Hamilton at 7 p.m. on the 8th July, and sailed for Port Dalhousie.

# PORT DALHOUSIE.

Arrived at Port Dalhousie at 11.30 p.m., 8th July, and landed oil and stores. This is a white wooden circular tower, 44 feet from base to vane, and shows a revolving light of the catoptric order, from an iron lantern, 10 feet in diameter, containing six silber burners, No. 1, with 19-inch reflectors, and can be seen 20 miles. Size of glass, 30 x 60 inches. The revolving machinery is in very good order.

A new lantern has been procured of the dioptric order for the end of the pier,

which shows a very good light.

William Woodall keeps this Station in very excellent order, his family consists of five persons.

#### PORT COLBORNE.

Passed the canal July 9th, and reached Port Colborne at 11 p.m. This is a white wooden gallows tower enclosing stairway to the lantern, and has been lately erected; it is a very substantial building. Height of the tower is 80 feet, to the top of the lantern 100 feet, it is 30 feet square at the base, and at the platform of the lantern it is 11 feet; size of the glass, 6.) x 30 inches. The pier on which this lighthouse stands is 20 feet above the level of the water, making the centre of the lantern 110 eet above the water.

The lantern is of iron, 10 feet in diameter, and contains ten argand burner lamps, with 18-inch reflectors, and should be seen 20 miles in clear weather; the illuminat-

ing apparatus is catoptric.

David Fortier is the keeper, who has a family of seven; he keeps his light in first-rate order.

This lighthouse has just been completed.

#### MOHAWK ISLAND.

July 10th, at 3.50 a.m. arrived off Mohawk Island, landed supplies and inspected

the lighthouse, and found everything in very good order.

This is a circular stone tower, 00 feet in height from base to vane, painted white; the lantern is of iron, 10 feet in diameter, and shows a revolving white catoptric light, every three minutes, and ten No. 1 base-burner lamps, with 15-inch reflectors; the size of the glass is  $14\frac{1}{2} \times 17\frac{1}{2}$  inches.

The revolving apparatus is in very good order. Two new sheaves 10 inches in diameter, are required for the pully of revolving machinery; a new pipe is required

for the lantern stove; the keeper instructed to get pipe.

#### PORT MAITLAND.

Arrived at this Station on 10th July, at 7 a.m. This is a white hexagonal wooden tower, having an iron lantern, 7 feet 6 inches in diameter, with four mammoth flat-wick lamps, and 20-inch reflectors, and is of the catoptric order; this light can be seen 10 miles. The lighthouse requires pointing very badly, also the dwelling-house. Size of glass, 36 x 36 inches. The pier on which this lighthouse stands was injured by the ice during the last winter; the building timber on the upper end of the pier was torn off and the bolts drawn. Six pieces of oak timber are required for the apron on the front of the pier, as they were torn off last winter. Fergus Scholfield is keeper, who has a family of four children; he keeps his light in very good condition.

#### PORT DOVER.

July 10th.—1 p.m. Arrived at Port Dover. This is a white square wooden tower, 20 feet high from base to vane, and is hexagonal. The lantern is four feet in diameter, and constructed of iron; contains four No. 1 lamps, with 14-inch reflectors, and shows a white fixed light, which can be seen six miles.

A new lantern is much required at this Station, and the lantern should be raised

4 feet. The deck of lighthouse is 7 feet 21 inches square.

The lighthouse requires painting.

Henry Morgan is keeper, whose family numbers five persons.

This light is fairly kept.

## LONG POINT, LAKE ERIE.

This Station was reached on the 10th July, at 3.30 p.m.; it is an octagonal wooden tower, painted white, 60 feet high from base to vane, and is of the catoptric order; having an iron lantern, 8 feet in diameter; it is a revolving light, once a minute, and has six mammoth flat-wick lamps, with four 17-inch and two 16-inch reflectors; size of glass of lantern, 14 x 12 inches. Lighthouse and dwelling require painting; keeper instructed to have the painting done.

It is the opinion of several experienced lake captains, and also of Mr. H. H. Woodward, keeper of Long Point Lighthouse, that the new lighthouse in contemplation should be erected near where the light-vessel used to be moored, as in that

part of Long Point most of the casualties occur.

The present Station should be supplied with a good life-boat to assist ship-

wrecked crews; a great many casualties occur near this Station.

Mr. H. Woodward is the keeper at Long Point, and keeps his light and premises in very good order; his family consist of twelve persons.

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#### PORT BURWELL.

Arrived at Port Burwell, July 10th, 11 p.m.. and found everything in very good order; it is a white wooden octagonal tower, 46 feet high from base to vane. The lantern is constructed of iron, 6 feet in diameter, with three No. 1 base-burner lamps and 15-inch reflectors, and should be seen eight miles.

The lighthouse requires painting; no other repairs are required this season.

Alexander Sutherland, the keeper, has a family of twelve.

Size of glass of lantern is 30 x 36 inches.

### PORT STANLEY.

This lighthouse was visited and inspected on the 11th July, at 4 a.m. This light is hoisted on a frame, which stands on the pier. It shows a white fixed light, having an iron lantern, 3 feet 2 inches in diameter, burning four mammoth flat-wick lamps, with 12 inch reflectors, and can be seen six mile.s

This Station is in a very bad condition; the pier on which the frame work stands is very rotten. The supports to the lights are rotten. A new lighthouse is much required; it should be placed on the new pier, outside where the present structure stands. The southwest corner of the new pier is sunk a little.

A red light is now burnt on the end of a pier, hoisted on a small pole.

Charles Ead, the keeper, has a family of ten children; he keeps his light as well as possible under the circumstances.

#### BONDEAU.

The steamer arrived here on the 12th July, at 1 a.m.; landed the oil and stores. The lighthouse is constructed of open gallows work, enclosing the stairway to the lantern; it is 64 feet in height from base to vane, and shows a red and white revolving light every minute and 30 seconds, and should be seen 20 miles in clear weather. The lantern is of iron, 10 feet in diameter, containing six Silber burner lamps, with 22-inch reflectors; size of glass, 60 x 30 inches; ruby glass, 24 x 24 inches.

Thomas Harrison is the keeper, his family number four; he keeps his light in excellent condition; no repairs are required this season.

There is also a range light here showing a fixed white light, with iron lantern,

4 feet in diameter, burns one mammoth flat-wick lamp, with 17-inch reflector.

The tower is open frame work painted white, and is 30 feet high from base to vane.

#### POINT PELEE REEF.

Arrived at Point Pelee Reef on the afternoon of the 12th July. This is a white wooden tower enclosed in a caisson of wood, and stands on the extreme point of the reef; it is 61 feet high from base to vane, having a lantern 10 feet in diameter; size of glass,  $17\frac{1}{2} \times 14\frac{1}{2}$  inches, showing a revolving white catoptric light every minute and thirty seconds, there are six mammoth flat-wick lamps, with 20-inch reflectors, and should be seen 18 miles.

This light is kept very clean and in good order. The revolving machinery

works in a satisfactory manner.

W. A. Grubb is the keeper; he has a family of four.

Examined particularly into the repairs now in progress at this Station, and I consider that they are progressing very well, and the work so far as done, is done in a very substantial and workmanlike manner.

# PELEE ISLAND.

Arrived at this Station at 8 p.m., 12th July, and supplied oil and stores; it is a white stone circular tower, 40 feet high from base to vane, with an iron lantern, 9

feet in diameter, and it contains four circular and seven No. 1 base-burner lamps, with 15-inch reflectors, and is kept in excellent order.

James Cummins, the keeper, has no family.

An oil house is very much required, as the lighthouse is crowded with oil tanks up to the third flat, which is very dangerous in case of an accident taking place.

The size of the glass of lantern is 14 x 12 inches, which much obscures the light.

# MIDDLE ISLAND.

Called at this Station on the 12th July, at noon, being unable to land at Pelee Reef on our way, there being too much sea. The tower is a white square wooden building on stone foundation, 49 feet from base to vane, and shows a red fixed catoptric light, from an iron lantern, 6 feet in diameter, containing five mammoth flatwick lamps, with 16-inch reflectors, and should be seen eight miles in clear weather. Size of the glass is 30 x 36 inches, and of the ruby glass, 20 x 20 inches.

L. S. Brown is the keeper, who has everything in very good order.

Lower story of lighthouse requires to be lathed and plastered, and floor laid; two new windows are required, some plastering to be done on the second flat. The keeper offers to do the whole for the sum of \$75; outside walls require cementing. I recommend that the keeper should do the work at once.

# BAR POINT LIGHTSHIP.

Arrived alongside the lightship on the 13th July, at 7.30 a.m. This vessel is built of wood and painted red, with "Bar Point" in white letters on her sides; she shows two lights, one red and one white; the lanterns are of the dioptric order, and are hoisted on the foremast 48 and 40 feet above the deck, and should be seen five miles.

I found the vessel in very good order.

The fore part of the deck requires caulking; no other repairs needed this year. Hugh Manson is the keeper; he has no family.

#### BOIS BLANC ISLAND.

Arrived at this Station at 10 a.m., 13th July; landed stores and oil; inspected the lighthouse and found everything in very good condition; the explosion of the lamps

having caused no damage to the lantern or building.

This is a white circular stone tower, 40 feet high from base to vane; it has an iron lantern, 8 feet in diameter, containing six lamps, five mammoth flat-wicks, and one No. 1 base-burner lamps, with three 18-inch and three 16-inch reflectors; size of glass,  $14 \times 12$  inches. An oil-shed is very much needed here, as all the oil is now kept in the lighthouse; a building of  $14 \times 18$  feet would be most suitable.

The pier or breakwater, which protects the shore and lighthouse from the sea and ice, is in a very bad condition, and needs extensive repairs; it is very rotten; the inner stringer is entirely gone, as also the ties; the outer timber, which is of oak, is gone and rotten in many places. The length of the pier on the south side is 492 feet; north angle, 157 feet, making a total of 649 feet; it is 9 feet wide to the back stringer; the ties are 6 feet apart; stone will also be required to fill in the pier to the level of top stringer.

The range lights were also in very good order. The main light requires pionting and whitewashing.

The keeper states that the plan of the land required for lighthouse purposes has been forwarded to Ottawa to the Department.

Andrew Hackett is keeper, and his family number six.

#### RIVER THAMES.

This Station was reached on the 13th July. It is a white stone circular tower 30 feet in height from base to vane, with a lantern of iron 7 feet 6 inches in

diameter, containing five base-burner lamps, with three 16-inch and two 14-inch reflectors, showing a white fixed light : size of glass 30 x 36 inches. There is also a range light, showing a white fixed light of the catoptric order; it stands on a pier; the lantern is of iron, 6 feet 6 inches in diameter, and has one No. 1 base-burner lamp, with 14-inch reflector; it is in very good order.

Thomas Cartier is keeper, and keeps his Station in first-class order; his family

consist of eight persons.

No repairs are required at this Station this season.

#### GODERICH AND RANGE LIGHTS.

On the 15th July arrived at this Station from Sarnia. Inspected the lighthouses and landed the supplies, and found everything in excellent order. The main lighthouse at Goderich is a white square tower, with dwelling-house attached; having an iron lantern, 8 feet in diameter, shewing a white fixed catoptric light, which can be seen 25 miles in clear weather. There are ten No. 2 Silber-burners, with 15-inch

reflectors; size of glass, 20 by 18 inches.

Goderich outer range-light stands on the end of the breakwater, and shows a fixed red light from a square wooden tower. The lantern is 4 feet in diameter, and constructed of iron; contains one mammoth flat-wick lamp, with 17-inch reflector; size of glass, 30 x 30 inches; size of ruby glass, 20 x 20 inches. The inner range light is not painted, and is a poor frame gallows work, and stands on the inner end of wharf; it shows a fixed green light; the size of the lantern is 36 inches, and is of iron, and contains one mammoth flat-wick lamp; size of green glass is 20 x 20 inches. A new lighthouse and lantern is much required to replace the present one; the lantern is far too small. Keeper has great difficulty in lighting the lamp in bad weather; he has to ascend to the lantern by an outside ladder, and he cannot get into the lantern.

George McDonald is keeper at this Station; his family number five.

#### POINT CLARK.

July 15th, at 3 p.m., arrived off Point Clark. The tower is a white stone circular building, 87 feet from base to vane, showing a revolving white light every 30 seconds, of the dioptric second order, and burns one large circular-wick lamp. lantern is of iron, 10 feet in diameter, with glass 30 x 30 inches, and can be seen 15 miles in clear weather. The lighthouse requires pointing and whitewashing.

John Young, the keeper, has everything in very good order; his family con-

sist of two.

#### KINCARDINE

Arrived here 15th July, at 10 p.m. This is a wooden building painted white, and stands on the breakwater, it is 20 feet high from base to vane, and shows a red fixed light from a wooden lantern, 6 feet in diameter. Size of glass 32 x 28 inches; ruby glass, 18 x 19 inches. There are five mammoth flat-wick lamps, with 20-inch

There is also an inner range light on the inner end of breakwater, having one

lamp, No. 2 base-burner in a tin lantern, with an 8-inch reflector.

The roof of main light leaks and wants repairs immediately. The inner range is in a very poor condition; a new building is much required, and the lantern at present in use is almost worthless.

#### CHANTRY ISLAND.

The steamer arrived off this Station, on the 16th July, at 7 a.m. This is a white stone circular tower, 86 feet from base to vane, with an iron lontern 10 feet in diam-113

eter, and contains a dioptric globe of the second order, containing five No. 1 base-burner lamps, and should be seen 17 miles in clear weather; the color of the light is white.

There is also a range light placed on the end of the breakwater; it is a wooden tower, 25 feet high and painted white, with an iron lantern 5 feet square, showing a red and white catoptric light; it has one mammoth flat-wick and one circular burner lamps, with 18-inch reflectors; and marks the entrance between the breakwaters. This Station is kept in very excellent condition, and considered the best on the lakes.

Six thousand shingles are required for the dwelling and shed. Keeper to pro-

cure the same.

Thirty cords of stone are required to be placed around the new boat house built here this season.

Duncan McGregor Lambert is the keeper; he has a family of six.

#### SOUTHAMPTON RANGE.

This lighthouse is situated on the beach to range with the breakwater light; it is a square wooden tower, 28 feet high from base to vane; it has a lantern of iron 6 feet in diameter, and it contains one mammoth flat-wick lamp, with 18-inch reflector, and it should be seen six miles in clear weather.

David Cascadin is the keeper; whose family consist of seven children.

Everything is kept in very good order.

# MICHAEL'S BAY.

Arrived at this Bay on the 16th July and landed supplies; it is a square wooden tower painted white, showing a fixed white catoptric light, elevated 40 feet above the lake, and should be seen 12 miles in clear weather. The lantern is of iron, 4 feet 6 inches in diameter, and contains one mammoth flat-wick lamp, with two convex reflectors. This lighthouse is kept in very good order.

The keeper, John W. Chisholm, has a family of four.

The dwelling-house requires plastering very much, as it is very cold during the winter; the seams are very open through the timber having been green when built. Keeper states he can get the work done for 12½ cents per yard, the material being furnished.

#### ISLE OF COVES.

This Station was reached on the 17th July, at 2 a.m. and at once landed the supplies, it is a white stone circular tower, 85 feet from base to vane, and shows a revolving flash light every  $1\frac{1}{2}$  minute, it is of the dioptric order, second class. The lantern is 10 feet in diameter, and the globe has one large circular-burner lamp; this light should be seen 20 miles in clear weather. Size of glass of lantern, 30 x 30 inches.

George Currie is the keeper; his family number five children.

Bricks are required to build a chimney in the kitchen; the roof has been on fire several times; 200 feet of lumber is required to repair floor of house, keeper instructed to get material and do the work himself.

A good boat is very much needed at this Station, 20 feet long; the keeper can

build the boat if allowed for it by the Department.

Lighthouse requires pointing and whitewashing.

#### GRIFFITH ISLAND.

Griffith Island Light was visited and inspected on the morning of the 17th July, at 7 a.m. and supplied with oil and stores. The tower is a white stone building, 85 feet high from base to vane, and 130 feet above the level of the lake; it shows a white fixed dioptric light of third order, from an iron lantern 8 feet in

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diameter, and it contains one large circular-burner lamp, and should be seen a distance of 12 miles in clear weather.

V. C. Hill isthe keeper, who has a family of two. This lighthouse is very well

kept.

The lighthouse requires whitewashing and painting; a boat has been built by the keeper for this Station.

# PRESQU'ISLE, GEORGIAN BAY.

We passed this Station on our way to Owen Sound, in consequence of a very strong breeze which was blowing at the time, and called here on our return; found every thing in very good order. The lighthouse is a white square wooden tower, 27 feet high from base to vane, having an iron lantern 7 feet in diameter, and it has three mammoth flat-wick lamps, with 16-inch reflectors. Size of glass, 30 x 36 inches. Mr. John McKenzie keeps his Station in very good order; his family number nine. The lantern requires to be lined with zinc to prevent fire.

The deck of the lighthouse requires a new cover, and the material has been supplied for that purpose. Since my last Report an oil house has been built at this

Station, which adds much to the safety of the lighthouse.

#### MEAFORD.

Arrived at Meaford on the 17th July, at 9 a.m. This lighthouse stands on the end of the breakwater, the lantern is hoisted up a frame work; it shows a white fixed light, which can be seen five miles. The lantern is of galvanized iron, and contains four No. 1 base-burner lamps, but has no reflectors, the lantern being too small to receive them.

Samuel Dutcher, the keeper, has his light in very good condition; his family

number eleven.

#### NOTAWASAGA ISLAND.

Arrived at Notawasaga Lighthouse on the morning of the 18th July; landed the supplies and inspected the establishment.

This light is in a circular stone tower, 85 feet in height from base to vane, and

shows a revolving dioptric light of the second order every half minute.

The lantern is of iron, 10 feet 4 inches in diameter; the globe contains one large circular lamp, and this light should be seen 20 miles. Size of the glass in the lantern is 30 x 27½ inches. A new boat house for the life-boat has been built at this Station, it is 40 feet long by 16 feet wide and is a very good building, and will prove of great service in protecting the life-boat.

The coping-stone of the lighthouse requires to be covered with lead as the water runs into the lighthouse and a new cover is required for the deck. The lighthouse wants pointing and whitewashing. A chimney is wanted in the kitchen.

The porch and platform want repairing around the house.

George Collins is keeper, and his Station is kept in excellent order and condition.

#### COLLINGWOOD BREAKWATER.

Visited this lighthouse at 2 p.m., 18th July. It is placed on the extreme end of the breakwater; it is a white square wooden tower, and shows a fixed red light of the catoptric order, from a wooden lantern 6 feet in diameter, and has four No. 1 base-burner lamps, with three 14-inch reflectors; it should be seen six miles in clear weather; size of glass, 26 x 36 inches; ruby glass, 24% x 24 inches.

Since my last visit this lighthouse has been supported by four wooden stays, 8

inches square and 26 feet long, which adds very much to its stability.

Robert Doherty is keeper; he keeps the lighthouse in very good order; his family number twelve.

The lighthouse requires painting.

#### CHRISTIAN ISLAND.

Arrived at this Station on the 18th July, at 9 p.m. This lighthouse is a white stone circular tower, 60 feet high from base to vane. The lantern is 5 feet in diameter, constructed of iron, and having a fixed white dioptric light of the fourth order, containing one No. 1 base-burner lamp, which should be seen eight miles in clear weather; the size of the glass is 42 x 28 inches.

John H. Hoar keeps his lighthouse and premises in very good order; his

family consist of three.

The wall of this lighthouse is cracked from near the top to the bottom; keeper thinks the foundation has given away; it should be examined at once by a competent person; it needs some protection from the sea, as the beach has been washed away considerably; it will require 60 or 70 cords of stone to protect it; it also wants whitewashing.

GIN ROCK.

Visited this lighthouse on the 19th July, at 1 a.m., and found everything in first rate condition. It is a white square wooden tower, with dwelling-house attached, 36 feetthigh. It has an iron lantern, 8 feet in diameter, containing four mammoth flat-wick lamps, with 17-inch reflectors, and it can be seen ten miles; size of glass of the lantern, 36 by 28 inches.

Israel Mundy is the keeper, who has a family of five.

A small wharf is wanted for the protection of the keeper's boat. No repairs necessary this season.

#### PENETANGUISHENE.

The steamer reached this lighthouse at 3 a.m., 19th July, and supplied the oil and stores. The lighthouse is a small square wooden tower, 18 feet high from base to vane, and burns one mammoth flat wick lamp, with a 16 inch reflector; it can be seen six miles; size of glass is 30 x 30 inches. This lighthouse is in fair order.

P. Gordon, the keeper, has five in family; no repairs are required this season.

# PARRY SOUND, MINK ISLAND.

We arrived at Mink Island at noon on the 19th July. The tower is placed on the dwelling-house, and is 40 feet from the base to the vane; it has a wooden lantern, 4 feet 6 inches in diameter, shewing a fixed white catoptric light, and burns four mammoth flat-wick lamps on tin stands, with 15-inch reflectors, and can be seen ten miles in clear weather; size of glass of lantern is 44 x 21 inches.

William McGowan is keeper; he has a wife and five children. The lighthouse and dwelling want painting; the keeper has every thing in excellent order.

Left new lamps for this Station, mammoth flat-wick, which will much improve it; a summer kitchen and wood shed is much required—kitchen 14 feet x 18 feet; shed, 14 feet x 12 feet.

# BYNG INLET.

Arrived at Byng Inlet on the 20th July, and delivered the supplies at the wharf; we then proceeded to the lighthouse and thoroughly inspected it; we found it in a very poor condition. The main posts of the building are partially rotten, and the structure is not worth extensive repairs, which it now requires; it is composed of 2-inch plank nailed together, and is open gallows work, 60 feet high from base to vane; it has an iron lantern 5 feet in diameter, containing four No. 1 base burner lamps, with 15-inch reflectors, and should be seen 10 miles.

The keeper's dwelling requires plastering or lining, as it is too cold in the winter,

being built of single boards and battened outside.

The base of the lighthouse tower is 26 feet; square of platform, on the deck, 13feet 5 inches; square of lantern platform. 7 feet 3 inches; size of glass in lantern

 $21 \times 13$  inches and  $17\frac{1}{2} \times 21$  inches. The dwelling-house is  $18 \times 2$ ) feet; 2,000 feet of lumber and 1,000 feet of matched lumber required to make the house habitable.

#### FRENCH RIVER RANGE LIGHTS.

Arrived at French River on 20th July. There are four range lights at this Station, two are situated on the outer Bustard Islands, and when in range lead to the mouth of French River; the inner range lights are placed for the purpose of guiding vessels into the river and so to the wharf. They are all fixed white catoptric lights; the outer or main light is 25 feet high from base to vane, and has a wooden lantern containing four mammoth flat-wick lamps, with 16-inch reflectors, and can be seen 15 miles; it also serves as a coast light. They are all open gallows frame work, and are kept in very good order.

Edward Borron is keeper, who is unmarried. No repairs are required this

season to any of the lighthouses.

The keeper's dwelling on the Bustard Islands requires lining, as the building is very open from the lumber shrinking; it is very cold in the fall of the year.

#### KILLARNEY RANGE LIGHTS.

Arrived at Killarney on the 21st July; landed the supplies. They are two white square towers, with iron lanterns 4 feet 6 inches square, having two base burner lamps, with 14-inch reflectors, and are in good order; size of glass,  $22 \times 13\frac{1}{2}$  inches; height of towers, 20 feet from base to vane. The zinc on both the platforms of the lighthouses require repairs, and material was left for the purpose. In No. 2 lighthouse, which is situated on the main land, the sills are rotten and new ones required; the clapboards also require some repairs. The kitchen of the keeper's dwelling requires replastering; keeper instructed to get estimate and forward it.

P. Proulx is the keeper. The lights are in fair condition.

#### LITTLE CURRENT.

The steamer arrived here on Sunday, 21st July; landed supplies and inspected the lighthouses. There are two towers of the same size, viz: 22 feet high above the water, and are for the purpose of guiding vessels into the harbour by both channels. They each show a fixed white catoptric light from iron lantern, 6 feet square, containing two No. 1 base burner lamps in each. The glass of the lanterns are of two sizes, viz. 21½ x 13, and 17½ x 21½ inches.

Donald McKenzie is keeper, he has a family of nine children.

The lighthouse on the main land requires new sills, the old ones are rotten, they are 12 feet long. The dwelling house requires replastering, an estimate to be sent.

#### LONELY ISLAND.

On July 22nd, at 5 p.m., arrived off the lighthouse, having been detained at Little Current through stress of weather, and we experienced great difficulty in effecting a landing. This is a white square wooden tower attached to the dwelling-house, and is 42 feet high from base to vane, and elevated 192 feet above the lake; the lantern is of iron 4 feet 6 inches in diameter. showing a fixed white catoptric light, which should be seen 20 miles in clear weather; the lantern contains five mammoth flat-wick lamps with 15-inch reflectors.

Dominic Solomon is keeper; the family consist of ten children and the widow;

he keeps the light in good order.

The lighthouse and dwelling require pointing badly; material left for the purpose, and keeper instructed to have the work done. No other repairs necessary this season.

#### CLAPPERTON ISLAND.

On the 23rd July, at 7 a.m., landed at this Station; it is a white wooden square tower 35 feet in height from base to vane, showing a white fixed catoptric light from an iron lantern 4 feet 6 inches in diameter, and it contains 3 base-burner lamps with 15-inch reflectors. Size of glass  $13 \times 21$  inches and  $17\frac{1}{2} \times 21$  inches.

Benjamin Baker is the keeper; his family number seven persons; he keeps the

light in good order.

The lighthouse requires whitewashing, new sashes for the dwelling house, and some lumber for the repairs of the kitchen; keeper to get estimate as to cost, and forward.

#### GORE BAY.

On our way to Manitoulin Island we called at Gore Bay, on the 23rd July, at 10 a.m.; found that there was no lighthouse in course of construction at the time of our visit; landed and placed in charge of Mr. Miller (who has charge of the wharf and warehouse) three barrels of oil for future use of the Station.

This is a very good harbour for fishing boats and small vessels, and is a port of call for some of the steamers plying on the Georgian Bay. There is plenty of water

alongside the wharf for vessels of 10 feet draught.

#### MANITOULIN ISLAND.

Arrived off this lighthouse on the 23rd July, at 2 p.m.; it is a white wooden square tower with dwelling attached, 28 feet high from base to vane, and has a wooden lantern 6 feet 6 inches in diameter, with four mammoth flat-wick lamps, with 18 inch reflectors, and should be seen 18 miles in clear weather. Size of glass of the lantern is 30 x 36 inches.

William Cullis, the keeper, has a family of four children; he keeps the light-

house and dwelling in very good order.

The kitchen was being replastered at the time of our visit, the old plaster having

all fallen off; there had been no hair mixed with the lime.

A boat is required at this Station, as the keeper has no other means of procuring supplies from the main land; he has a boat of his own, quite new, she is  $27\frac{1}{2}$  feet long, which he purchased from his own means, and hopes the Department will allow him for her; she is fitted with sails, rigging, anchor and chain, and I consider her well suited for this place; she is a first-rate boat in every way. The lighthouse and dwelling require painting.

#### GREAT DUCK ISLAND.

We came to an anchor off the lighthouse at 7 p.m., 23rd July. This tower is attached to the dwelling-house, and is a square wooden tower 54 feet from base to vane, and shows a red and white revolving light every two minutes, at an elevation of 64 feet above the level of the lake, and can be seen 20 miles. The lantern is constructed of iron, 10 feet in diameter, and contains 10 Silber-burner lamps, with 22-inch reflectors; size of glass is  $60 \times 30$  inches, and the ruby glass,  $23 \times 23$  inches.

William Purvis is the keeper, who has nine in family.

The keeper has greatly improved this Station by clearing up the land around the lighthouse, thus placing the lighthouse out of danger of bush fires.

This light and dwelling are kept in a very excellent manner; it is one of the best kept Stations on the lakes.

#### SULPHUR ISLAND.

Sulphur Island was visited and inspected on the 24th July, at 5 a.m., and everything found in good order; it is a white square wooden tower, 20 feet high from base to vane, and shows a fixed white catoptric light from an iron lantern, 4 feet 6 inches in diameter, and burns four mammoth flat-wick lamps, with 16-inch reflectors; size of glass of lantern is  $17 \times 20\frac{1}{2}$  inches, and  $12\frac{1}{2}$  by  $20\frac{1}{2}$  inches.

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William Shepherd is keeper, and his family number three. This light is in good order. The foot of stairs to the lantern want moving round, as it opens into keepers wife's bed-room, at which she objects.

#### THESSALON RIVER.

Arrived at Thessalon River at 8 a.m., 24th July, and delivered supplies. This is a square wooden box about 8 feet high; has no lantern, but two panes of glass put into the side; it has one mammoth flat-wick lamp, with 16 inch reflector. George Dodds is keeper, who receives no salary. The place is kept as well as it can be under the circumstances.

I would recommend Mr. Dodds be paid one hundred dollars per annum for his services.

#### POINT AUX PINS.

The steamer left Sault Ste Marie at 4 a.m. 25th July, and arrived at the lighthouse at 5 a.m. This is a square wooden tower standing on the extreme point, and is 23 feet high from base to vane, having a wooden lantern 6 feet in diameter; it contains three No. 1 base-burner lamps, with 16-inch reflectors, and it can be seen eight miles; size of the glass in the lantern 30 x 36 inches. This light is kept in fair order.

Wade G. Foote is keeper, who has two children. The channel at this part of the river is buoyed by the American Government.

#### BATCHEWANA BAY.

Point Corbay was reached at 11 a.m. of the 25th July; landed the supplies and examined the Station; found every thing in fair order. The tower is a square wooden one, painted white, and is attached to the dwelling-house; it is 63 feet high from base to vane; has an iron lantern 8 feet in diameter, and contains four mammoth flatwick lamps, with 16-inch reflectors, and should be seen 20 miles in clear weather; size of the glass in the lantern, 28½ x 35 inches.

David Crawford is keeper, who has a family of three.

The lighthouse requires painting; a boat-house has been built of cedar logs; spare glass wanted for the lantern, also for the windows in lower rooms of lighthouse; size  $23\frac{1}{2} \times 23\frac{1}{2}$  octagonal.

### MICHIPICOTEN ISLAND.

Arrived in Quebec Harbour on the 25th July, at 11.30 p.m., and landed stores and oil; it is a square wooden tower, 32 feet high from base to vane, and shows a white fixed catoptric light from an iron lantern 8 feet in diameter, containing three mammoth flat-wick lamps, with 20 inch reflectors; size of glass, 30 x 36 inches. A bell tower is in operation here, weight of bell is 960 lbs.; the machinery is in very good order.

We also inspected Agate Island Lighthouse; it shows a fixed white light of the catoptric order, and is 20 feet high from base to vane, and is built on a rock at the mouth of the harbour, and is of great service to vessels entering the harbour of Quebec; it has a wooden lantern, 8 feet in diameter, and burns two mammoth flatwick lamps, with 16-inch reflectors. Size of glass, 30 x 36 inches. Both these Stations are kept by Peter McIntyre, who has them in very excellant order; he has four in family.

No repairs are required this season.

# BATTLE ISLAND

Was reached on the 26th July, having been compelled to anchor on account of too much sea to land supplies. This is a white square tower, standing on a rock 69

feet above the level of the lake. The tower is 36 feet from base to vane, and shows a revolving light once a minute, from an iron lantern 8 feet in diameter; it contains four lamps, two No. 2 circular and two mammoth flat-wick lamps, with 18-inch reflectors. Size of glass in the lantern is 28 x 36 inches; but this glass is too small and was placed in the lantern by the contractor, as no other was available at the time.

The revolving apparatus is in very good order, and works satisfactorily.

No repairs are required this season.

Charles McKay is the keeper; he keeps his lighthouse and premises in very good order; his family number six.

### LAMB ISLAND.

Arrived off Lamb Island, on the 27th July, at 2 a.m. This is a square wooden tower, with dwelling-house attached, and stands on the middle of the Island, 90 feet above the lake. The tower is 46 feet high from base to vane, and this light can be seen 20 miles. The lantern is constructed of iron, 8 feet in diameter, and has four circular lamps, No. 1, with 19 inch reflectors, Size of glass, 36 x 36 inches. It is a white fixed catoptric light.

The deck of the lantern leaks badly, and a new cover is required; the keeper can-

not keep it tight.

John Michelson is the keeper; he has a family of ten. His station is in very good order. A boat-house has been built by the keeper, 29 feet long and 14 feet 6 inches wide; it is a good building; it is not yet quite finished, as some more lumber is required for the back end of the building. The lumber used in its construction is that which was taken off the contractors hands by the Department. The keeper has also supplied some which he procured along the shore.

# POINT PORPHYRY.

Arrived here on the 27th July, at 8 a.m., and landed the supplies. This is a hexagonal tower, with dwelling-house attached, built of wood and painted white, shewing a white fixed catoptric light. The lantern is 9 feet in diameter, and contains four circular No. 1 lamps, with 20-inch reflectors; size of the glass is 36 x 30 inches. The height of this tower is 36 feet from base to vane, and is elevated 56 feet above the lake, and should be seen from 16 to 18 miles in clear weather.

Donald Ross is the keeper; he has a wife and two children.

Two hundred feet of pine flooring is required for the kitchen, and the lighthouse and dwelling require painting.

#### THUNDER CAPE

Was visited and minutely inspected on the 27th July, at 2 p.m. It is a white square wooden tower, with dwelling-house attached, and is 28 feet high from base to vane. The lantern is constructed of iron, and is  $7\frac{1}{2}$  feet in diameter, with two mammoth flat-wick lamps and 20-inch reflectors; this light revolves once a minute. Size of glass of lantern is 30 x 28 inches, and should be seen twelve miles.

Duncan McEachen is the keeper; he has nine in family.

The Station is in good order.

The foundation of the building is cracked in the south-east corner and needs repairs.

# FORT WILLIAM AND RANGE.

The steamer reached Fort William at 5.30 p.m., 27th July; landed the supplies and inspected the Station. This is a white square wooden tower, with dwelling-house attached. It stands on the bank of the Kaministiquia River, and with the range light leads through the dredged channel at the mouth of the river. There are also four spar buoys placed on the edge of the channel to assist vessels entering the river.

The tower shows a fixed white catoptric light from a galvanized iron lantern, 4 feet in diameter; it contains one mammoth flat-wick lamp, with a 16-inch reflector. The range light is a small square tower, painted white, 293 yards E.N.E from main light; it has a small lantern, containing one mammoth flat-wick lamp with 16-inch reflector. This lantern is far too small; the keeper has to ascend to the lantern by an outside ladder, and has great difficulty in lighting the lamp during bad weather; it has to be done with the door open, as he cannot get into the lantern.

The beacon which stood at the entrance is now gone, and only the crib remains,

which is useless since the range light has come into operation.

A boat is required here for lifting and placing the buoys; the dredge was at

work on the bar at the time of our visit.

An addition to the dwelling-house is very much required, as the house is very small. There is no cellar on account of the lowness of the situation, and the keeper has no place to keep his provisions. An oil-house is also very much required; there is no place to keep the tanks, and they are exposed.

Daniel Morrison is the keeper; he has everything in very good order; he

has a family of eight children.

# TELEGRAPH ISLAND (BAY OF QUINTE.)

# (John Mason, Keeper.)

This is a fixed white catoptric, containing two base-burner lamps and two 18-inch reflectors on cast-iron stands. There was no oil delivered, as the keeper had about 60 gallons on hand. The lighthouse is a white square wooden building, with dwelling attached. The lantern is 5 feet in diameter, and of wood. The light can be seen 10 miles. Size of glass, 21 x 4½ inches. The lighthouse is in good repair, and well kept. There are three of a family.

# APPENDIX No. 4.

REPORT OF THE PRINCE EDWARD ISLAND AGENCY OF THE DEPARTMENT OF MARINE AND FISHERIES, FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

> AGENCY OF THE DEPARTMENT OF MARINE AND FISHERIES, CHARLOTTETOWN, P.E.I., 9th September, 1878.

SIR,—I have the honour to submit a short Report of the several operations which have been, and I trust will continue to be, carried out in the Prince Edward Island Agency of this Department.

While it affords me much pleasure to be in a position to state in this Annual Report, that the new lighthouses and the alterations recently made are most satisfactory; that the improvements in the lighthouse and coast service the last year, are recognized and appreciated by mariners who approach the coast or enter the harbours, nevertheless, I must say that two or three of the old lighthouses require new lanterns, and several new range towers, before it can be said that the coast and harbours under the Agency are in an efficient state.

# LIGHTHOUSE AND COAST SERVICE.

The district under the supervision of this Agency embraces all the Lighthouse Stations on the Island; all the buoys and beacons, hospitals and temporary lodgings for sick and distressed seamen, who may be wrecked or landed upon our shores, and all work connected with the Department.

It is also the duty of the Agent to render accounts connected with the above works, and periodically to report upon them, which accounts I forwarded in detail to

the head office in Ottawa, at the end of every month.

#### LIGHTHOUSES.

There are twenty two light-stations under the supervision of the Agency; fifteen lighthouses, three of them having range towers; five range lights and two single lights, making the total number of lights to amount to thirty. The number of light-keepers at the present time is twenty-two.

Order of Reference.—In noticing the different lighthouses and Stations, I shall

refer to them in the following order, viz:—1st, the

# NORTH CAPE (REVOLVING WHITE.)

Having been informed by the Department that Mr. Lewis McDonald, the previous keeper, had resigned, and that Mr. Peter K. Perry was appointed in his place, on the 20th of June I proceeded to North Cape, and found the lighthouse and light apparatus in a most dilapidated state. I immediately got a carpenter to work, and sent a plumber from Charlottetown, who repaired the lamps, and put the machinery in good working order for the present. New lamps and burners will have to be furnished said lighthouse shortly. Several cogs are broken out of one of the wheels, which will have to be repaired when navigation closes. I visited this Station again on the 25th July, and found the lights in fair order.

# WEST POINT (REVOLVING WHITE AND RED.)

This Station is situated on the beach, which I visited on the 23rd of July. The lighthouse is a large square tower, with dwelling attached, put in operation May, 1876. It is furnished with eight powerful reflectors, making a full revolution every three minutes, shewing a red flash every minute and a half. Mr. William McDonald, the keeper, is very attentive, and I must say that the clean and comfortable state in which I found the whole premises was a credit. The light apparatus appeared in as good order as when first put in operation.

# SUMMERSIDE (FIXED WHITE.)

This Station is on the railway wharf; a very neat tower is constructed on the north end of a new freight house. The light was put in operation on the 22nd of October, 1877. Mr. Patrick McVeigh is keeper; the light is highly spoken of as being good and well kept.

# SEA COW HEAD (FIXED WHITE.)

I visited this Station on the 27th July, and found the keeper, Mr. Peter Ranaghan, at his post. The lighthouse was clean and in good repair. The illuminating apparatus consists of five of Silber's patent lamps and burners, with deep reflectors, which were also satisfactory. A cottage is much required at this Station. The keeper lives in the lighttower, which is very uncomfortable, and I trust the Department will consider the necessity of having a cottage built next summer, the cost of which will be placed in the Estimates.

# CRAPAUD OR VICTORIA (FIXED WHITE.)

This Station has but one light, hoisted on a mast, which I visited on the 25th of May, by order of the Department, to ascertain the height and position of range towers, plans and specifications of which are daily expected from the Engineer's Office at Ottawa,

# BLOCK HOUSE (FIXED WHITE) "RED BANGE SEAWARD."

This is a most important light, being at the entrance of Charlottetown Harbour, and a Signal Station, which is visited by hundreds of pleasure seekers during the summer. The lighthouse is always clean and neat, and the lights in the best of order. Mr. Archibald McLaine is keeper at this Station.

# POINT PRIM (FIXED WHITE.)

I visited this Station on the 13th August; found the keeper, Mr. Michael McLeod, busy securing the stores for the ensuing year. The lights were in good order. I stated in my last Report, that the lighthouse would soon require repairs, also a new lantern and light apparatus, as the old cast-iron sashes which formed the tantern were almost useless. I found on my recent visit, that the above repairs are most necessary, cost of which will be placed in the Estimates.

# WOOD ISLAND (FIXED WHITE, DIOPTRIC.)

This is a large new building, square tower, with dwelling attached. I called at this Station on the 14th of August. The premises were in good order, and the lights most satisfactory. Mr. James McMillan is keeper.

# LITTLE SANDS (FIXED RED.)

This light was granted by the Department for the benefit of fishermen, and placed in the end of a building which is near the bank, on the farm of Mr. D. Munn, who has charge of the light. I called at this Station on the 15th of August. I find that the light has become most important, being the only red light on the north side of the Strait; when mariners sight it they immediately know their position.

# MURRAY HARBOUR (TWO FIXED WHITE BEACONS.)

On hearing of the inefficiency of the outer beacon light, I visited this Station on the 16th of August, and supplied a new lantern, which gives satisfaction. Since the date above mentioned the Department at Ottawa have forwarded plans and specification of range towers to be erected in place of the old beacons, which appear well adapted for the Harbour.

# PANMURE ISLAND (FIXED WHITE.)

Mr. William McDonald is keeper at this Station, which I visited on the 27th of August; found the buildings in good repair, and the lights satisfactory.

# ST. ANDREWS POINT, (FIXED RED, SEAWARD; WHITE, TOWARDS HARBOUR.)

I called at this Station on the 27th of August. This light consists of two mammoth flat-wick lamps, with 19-inch reflectors, showing east and north, which I found very much neglected; talked with the keeper who promised that more attention would be paid to the lights in future.

# EAST POINT (REVOLVING WHITE.)

A large sum has been expended for alterations and repairs at this Station recently. A new lantern containing a revolving light of the most modern improvement has been placed on the lighthouse. It required considerable skill and labour to make the building sufficient to carry the weight.

The light was put in operation on the 1st of June, which is most satisfactory. A cellar has been dug under the cottage; a stone wall built; the outside of all the buildings painted, and some gates made. The premises have been put in first class order. Mr. A. K. Beaton is keeper at this Station.

21. 11. Doubon to morphic at this common.

# ST, PETERS (FIXED WHITE RANGE.)

I visited this Station on the 13th of June, and furnished supplies, which I considered necessary to last until the new range towers are completed, which are now in progress. W. W. McGrath is keeper at this Station.

# TRACADIE (TWO FIXED RED.)

Mr. Michael Ready is keeper at this Station, which I visited several times this season by his request. I find that the towers require to be shifted to suit the range of the channel after a storm; the lights are kept in good order.

# SOUTH RUSTICO (FIXED WHITE RANGE.)

This Station was added to the list of lights in 1875, and must be of great service to fishermen, as no accident, either to life or property, has occurred since, which were so frequent in past years.

NORTH RUSTICO (FIXED WHITE; CHANNEL RANGE IN BUILDING, RED.)

There is a very neat new lighthouse at this Station, which is lighted with three flat-wick mammoth lamps, and one circular-burner with most powerful 20-inch reflectors.

J. S. Pursey is keeper, who is very trustworthy; I always find the lights in good order

NEW LONDON (FIXED WHITE; CHANNEL RANGE IN BUILDING, RED.)

Mr. George McKenzie is keeper at this Station, which I visited on the 5th of August; I found the lighthouse clean, and the light very satisfactory.

MALPEQUE FISH ISLAND (FIXED WHITE, WITH RANGE TOWER.)

This is a most important Station, being at the entrance of the best harbour of refuge on the north side of the island, which I visited on the 6th of August.

Mr. Angus J. McLellan is keeper, who is neither energetic nor careful; I must say that the lights were not satisfactory.

LITTLE CHANNEL (FIXED WHITE, WITH RANGE TOWER.)

William Hardy is keeper at this Station, which I visited on the 26th of July. The lights which consist of two circular-burners, with 20-inch reflectors, were in good order.

CASCUMPEC SANDY ISLAND (FIXED WHITE; RANGE TOWER, RED.)

Mr. Asa McCabe, keeper. On my visit last fall I saw that it was necessary to protect the range tower from the action of the tide, which had nearly undermined it. When the ice made I had brush hauled and placed on the south-east side of the tower, for about one hundred yards; also heavy soil which would not blow away placed around the lighthouse, at a cost of \$88.35. I visited this Station on the 22nd of July; found the premises in good order, and the light satisfactory.

# TIGNISH (FIXED WHITE BANGE.)

This Station was visited by me on the 25th July. The lights were most satisfactory. All parties who are engaged in the fishing business consider them of great benefit to the place.

#### SUPPLIES

One hundred and twelve casks of oil, containing 5,326 gallons, were consumed at the different Stations under this Agency, during the past year; and the Stations are being supplied with oil and all necessary requirements for the ensuing year.

### BUOY SERVICE.

I must say that the 50 spar buoys supplied to this Agency by the Department at Ottawa, in the summer of 1876, gives better satisfaction than anticipated, especially on the north side of the island, where the rise and fall of the tide seldom exceeds three or four feet. The buoy service around the coast and harbours has been well attended to, and, from all I can hear, have been placed and are kept in their proper positions. There has been no increase in this service since my last Report.

# REPORT OF THE STEAMSHIP "NORTHERN LIGHT" FROM THE 20TH APRIL, 1877, TO 30TH JUNE, 1878.

SIR,—I have the honour to transmit a report in connection with the Dominion Government steamer "Northern Light," commanded by Captain A. Finlayson, stationed at Georgetown, and designed to keep up communication, if possible, with the mainland and Prince Edward Island during the winter season. The steamship "Northern Light" made her trips very successfully during the winter mouths of 1877, as shown by my last year's Report, and ceased on the 20th April, when the Prince Edward Island Steam Navigation Company's boats took her place.

She was placed on the main slip at Pictou on the 24th inst. to be strengthened and undergo sundry repairs, where she remained for seventy-five days, having a large number of men constantly employed while on the slip, and during her stay in

Pictou.

Left on the 1st of September, and arrived at the railway wharf, Charlottetown, where her machinery was refitted, boilers repaired, an extra steam pump supplied and put in operation.

Left Charlottetown on the 3rd of December, and arrived at Georgetown, to wait

for orders.

On the 19th inst., left for Pictou with mails and passengers, and performed the arranged trips successfully up to the 25th January, 1878, when the wind changed to the north-east, and continued to prevail for nearly three months, filling the Straits of Northumberland with heavy drift ice from the coasts north-east of Prince Edward Island, rendering winter navigation at certain periods impossible.

On the 10th of April; while forcing through heavy ice, the "Northern Light" broke her propeller, which disabled her from any further successful service for the

remainder of the season.

A short report of each trip, showing the number of passengers, mail bags and parcels of freight on board, difficulties encountered, and date when performed, was torwarded to the Deputy Minister at Ottawa by Captain Finlayson on his arrival at Pictou and Georgetown during last winter's service.

The earnings of the "Northern Light" for passengers and freight were collected by the railway department, as arranged. The captain forwarded to me \$293.60, collected by the steward of the boat for meals and berth. Also \$40 for towage, which was placed in the Bank of Prince Edward Island, to the credit of the Department.

The cost of repairs, improvements and additional machinery which were required, together with all expenses paid by me from the 20th April, 1877, to the end of the fiscal year, 30th June, 1878, amounted to \$28,094.87, accounts of which were forwarded in detail to the head office in Ottawa at the end of every month.

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

(Signed) WILLIAM MITCHEIL.

Sir Albert J. Smith,
Minister of Marine and Fisheries,
Ottawa.

# APPENDIX No. 5.

DEPARTMENT OF MARINE AND FISHERIES,
BRITISH COLUMBIA AGENCY,
VICTORIA, 29th July, 1878.

To the Honorable Sir A. J. Smith,

Minister of Marine and Fisheries.

SIR.—I have the honour to forward, for your information, an account of the operations of this Agency of your Department, for the Fiscal year ended 30th June, 1878.

# LIGHTHOUSES AND COAST SERVICE.

#### RACE ROCKS LIGHT.

A flash light of the second order; exhibits a flash all round the horizon every ten seconds. Dog fish liver oil is successfully used at this Station, and some very good samples of oil have been secured at a decrease of cost to that formerly paid, of 12½c. per gallon. The oil does not pass through any preparation from its crude state, beyond that of allowing it to settle and drawing off the clear oil. No repairs have been made at this Station during the fiscal year just closed. It is necessary however, that I should point out to the Department the defective character of the stone with which the tower is built, more particularly the upper courses. It would appear that the material has been quarried where sandstone could be procured, at the time the tower was built (1860), with the greatest facility, and at as little cost as possible to the contractors, and that used has been quarried from places where it has been subjected to the overflow of the tide; consequently, its exposure to the atmosphere causes a crumbling of the stone, dropping in flakes to the ground. An engineer who accompanied me on one occasion, when visiting Race Rocks, gave it as his opinion that it would be necessary in a few years to pull down the tower and rebuild it.

A Signal Station has been established at Race Rocks, for the special benefit of Her Majesty's Navy; this service was undertaken in consequence of a communication received from His Honor the Lieutenant Governor in Council, and which was explained in previous communications to the Department.

## FISGARD ISLAND LIGHT.

At the entrance of Esquimalt, is a fixed bright light, but shows red on approaching to close in shore. Several small repairs have been made at this Station, and a wharf erected by direction of the Department, mainly for the convenience of the keeper and for landing coal.

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# BEREN'S ISLAND LIGHT (VICTORIA HARBOUR,)

Shows a blue light, but, in consequence of the blue glass suspended in front of the reflectors being of a dark shade, the light is dimmer than it ought to be. No repairs have been made at this Station beyond making a necessary landing at a moderate cost; the building, however, requires painting. A change of keeper has been made at this Station. Mr. E. Cox, formely keeper at Beren's Island, has been removed to Cape Beale, vice Mr. R. Westmorland, resigned, and Mr. A. McKinnon has been appointed keeper of this lighthouse.

# ENTRANCE ISLAND LIGHT (NANAIMO,)

Is an important coast light and indicates the entrances to Departure Bay and Nanaimo Harbour. This is the only lighthouse on which any expenditure has been made daring the past fiscal year. An extensive and troublesome leak in the tower on the eastern face, which is the rainy quarter, could not be found; when raining heavily the water would penetrate to to the second and third stories flooding the ceilings and covering the floors. Mr. A. Fenney, of Nanaimo, has been employed on frequent occasions to try and stop the leaks. It was at last decided to put on an entirely new course of weather boarding, as the boarding originally put on must have been very defective. The site of the boathouse was found, during last winter, to be subjected to the surf and drift logs during a gale of wind, so much so that on one or two occasions the house and boat were nearly swept away; the boat house has been shifted to a safer position above the roll of the surf. From this arrangement it was found necessary to construct a tramway for the keeper to haul his boat up and launch it over the rocks. The building and tower have been painted by the keeper, with an assistant for a few days, the account for which has not yet been paid. Mr. Gray is an attentive and good keeper, and the usefulness of the light is highly spoken of. The keeper has complained to me that little or no driftwood has been secured on the Island for the past year, and that he is now in a difficulty as to where he can procure it in quantities for the winter months. Five panes of glass in the lanterns have been broken, which for some time could not be accounted for as the breaks were always in the same squares. The lamps were fixed in their places, but as it was conceived that the breakage could not have taken place by any other course than from the heat of the lamps, two of them in front of the panes that have broken, were shifted backwards as far as the space would allow, and since this has been done breakages have not taken place. The glass from Berens Island being of the same size as that in the lantern of Entrance Island, I was enabled to make good the loss of the broken panes, there being only two blind panes in the lantern at Entrance Island, which would leave only three spare panes from the quantity sent out.

#### POINT ATKINSON.

This lighthouse has been painted by the keeper, with an assistant for a few days. The keeper has also repaired the roof of the dwelling, without extra cost to the Department beyond a small quantity of lumber, nails and shingles.

# LIGHTSHIP, FRASER RIVER.

This vessel, on the 20th April last, experienced a heavy gale from the north-west; the cable parted about twenty fathoms from the swivel, capsized and broke the pawls of the windlass, started the pawlbit, with other damage. A new anchor and chain were immediately supplied as the lost one could not be grappled or found. A shipwright was sent up to examine the extent of damage and report generally on the condition of the vessel. This vessel was built at New Westminster in 1865, and, by an Order in Council, the wood used in its construction was to be that of the locality, wood not now understood to be well adapted to ship-building purposes. The ship-

wright reported that it was necessary the lightship should be taken into port for repairs, the vessel having been seven years previously moored constantly at her station. Certain defects were discovered and reported, and after the vessel was hauled out, far more extensive faults and defects were brought to light, the most serious of which was the decaying of the foremast (lantern mast) and the keelson. The vessel has been patched up, as her condition would not justify a large expenditure, as her top sides and greater part of the deck frame have the dry-rot. It is, however, expected that the repairs put upon her in May and June last will render her efficient and effective for the next five years; after that time I do not think it would be prudent to allow her to remain longer at her moorings; the moorings were examined but the position of the ship not changed. The vessel was not painted during the past fiscal year, the accident and consequent repairs interfering at the regular time for doing so.

#### CAPE BEALE.

No expenditure has taken place at this light Station, beyond that necessary for maintenance and salary, the former keeper of Beren's Island Light, having been appointed keeper at Cape Beale Lighthouse.

Mr. Cox has his wife and family of four small children with him, but no assistant.

A complaint from Captain McKay and two other persons of the light not revolving on the 11th of May last, was duly forwarded to the Department.

#### FRASER RIVER BUOYS.

The large iron buoys were scraped, cleaned and painted in the annual and regular service by the master of the lightship and crew of the "Sir James Douglas," with extra labour, shitted to their proper positions; extensive changes in the directions of the channel have taken place, and most of the buoys on both sides of the channel will have to be shifted when next seen to. This circumstance always causes a greater expenditure, as new moorings have to be provided, as it is found, by experience, that the wear and tear and breakages, loss of time and extra labour necessary, is more than an equivalent for the value of the moorings. It is, however, next to impossible to recover a mooring after it has been embedded in the sand for two or three seasons. It is possible to break the chain, but scarcely ever can a mooring be reclaimed from such positions. For the past season not one buoy has broken adrift, an exception to the general rule.

#### NANAIMO BUOYS

have been kept in repair, and in their proper positions. The steamer "Sir James Douglas" has rendered the Harbour Master this service.

# BAYNE'S SOUND BUOYS

have not been painted, but the beacon erected on the shore, as a leading mark for crossing the bar, received a coat of whitewash.

#### BURRARD INLET.

One iron buoy, belonging to the Fraser River, moored off the Point Spanish Bank in English Bay, has kept its position, an increased length of chain being attached by the steamer "Sir James Douglas." The buoy formerly placed on Burnaby Shoal has repeatedly been carried away. Steamers towing booms of logs for the saw mills are supposed to be the cause, the masters of which never report, for fear they would be called upon to make good the loss.

#### FRASER BUOYS NORTH ARM.

Four spar buoys were placed in position at the entrance of the North Arm, about two years ago, to guide shallow draught vessels navigating this channel across the sands; they have all been carried away either by drift or float ice. The traffic between New Westminster and Burrard Inlet by water is annually increasing, and the masters and owners of vessels trading between these places have made repeated applications to have others placed in position.

#### VICTORIA BUOYS.

Two new cedar buoys have been constructed and placed in position; they are conspicuous, and can be seen in the darkest night; the channel requires one more such buoy; the cost of the buoys including moorings, was about \$75 each. They are built of squared cedar, 6 feet square and 18 inches thick; the pieces are crossed and well treenailed, having a frame about 5 feet high, latticed and mounted with a ball or triangle.

#### ESQUIMALT HARBOUR.

The Commander-in-Chief has represented to the Harbour Master that he requires a buoy on Bacchante Reef, at the entrance, and a beacon built on Scrogg Rocks, also at the entrance of the harbour. I directed the Harbour Master to write to the Admiral and inform him that authority was not vested in him to incur the necessary expenditure for the above buoy and beacon, and that if he considered it necessary, the best course would be for him to apply through the ordinary channel.

# BRATCHIE LEDGE BEACON.

This beacon, constructed over four years ago, had become water-soaked and worm-eaten, and was liable to break away from its moorings. The new beacon constructed for Kelp Reef has been placed in position at Bratchie Ledge and the moorings examined.

#### GABRIOLA REEF.

The beacon on this reef has not sustained damage during the past year; it, however, requires repainting, which will be seen to on first opportunity.

## WALKER ROCK.

The beacon from this rock, which lies directly in the middle of a navigable channel, is much missed by navigators. Trincomalee channel is used by all local craft, and sometimes by H.M. ships; vessels of large tonnage have been towed through to Nanaimo, and, were it not for the dangerous position of Walker Rock, would be more extensively used, and often with great benefit to shipping. This channel, in conjunction with Portier Pass, under certain circumstances, would afford easier facilities for reaching the Gulf ports, were the dangers properly marked, the passage through Portier Pass being much shorter than that of Active Pass, which is a considerable object when contending with an adverse tide. I respectfully beg to recommend the favourable consideration of the Department to the desirability of authorizing the necessary expenditure for these public works.

#### LEWIS REEF AND CANOE ROCK BEACONS

Have required no repairs for the past year; they will each receive a coat of black first favourable opportunity.

## MARINE HOSPITAL.

This institution and its branches at Burrard Inlet and Nanaimo, has rendered good service to sick mariners. Serious accidents frequently occur at the lading ports, requiring the attention of medical aid on the spot. The facilities for sending patients to the Hospital are not sufficient, hence the expense of attending sick and maimed seamen is greater than it would otherwise be if they could be conveyed to the Hospital at Victoria. Some small repairs have been made, and the wards whitewashed. The interior of the building is kept by Mr. Wood, the keeper, assisted by Mrs. Wood, scrupulously clean and in good order, the rules of the institution are rigidly adhered to. The greatest drawback is the want of a supply of water in the summer months, the cistern being too small, and the tank at the top of the building, if full, would endanger the walls, as they would be very apt to collapse from the weight, indications of this character having been noticed, it has been deemed necessary to allow the tank to fill to about one-fourth only of its capacity.

The number of patients admitted for the fiscal year was forty-five, during which time two deaths occurred, the bodies being interred at the expense of the Department. Dr. Davie, the medical officer of the institution, will forward his Annual

Report.

## STEAMBOAT INSPECTION.

The complaints against the working of the Steamboat Inspection Act, as originally experienced when first put into force in this Province, have entirely died out. The Act works well, and the results of inspection are appreciated by the public. There are now thirty-three Provincial steamers, including all classes, with a probability of increased numbers, necessitated by the expansion of trade. Mr. Westgarth, the Inspector, will forward his Annual Report.

# SHIPPING DISASTERS.

So far as known no loss of life has occurred in the wreck district of British Columbia for the fiscal year just closed. Disasters to shipping have, however, been of a graver character than usual on our inland waters. I append a list of casualties for your information:—

1877.		
ragust 2	Alexander," British steamer	Collision with pilot boat two miles off shore at
	1	Padder Rev - clight demage
September 14	"Cane Clear" British iron ship	Collision with barque "Don Nicholas;" hole
	oup order, Direct Hou on part	knocked in on starboard side; repaired in
. do 14.		Victoria harbour.
Y 14	.]" Don Nicholas," Bolivian barque	Collision with "Cape Clear;" slight damage.
wember 4	. ' Ocean Gem." British barque	Collision with barque "Halton Castle" whilst
•		both were being towed off East Point, Gulf
	i	of Georgia; little damage.
do 6	. "Sword Fish," do	Defined on the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party and the second party an
0	. Sword Fish, do	Drifted ashore, in calm, near Race Rocks, total
a		loss; 725 tons.
do 25	. "St. Lawrence," British ship	Struck in Active Pass through attempting pas-
	1	sage at wrong state of tide; considerable
	i	damage; repaired at Burrard Inlet.
do 27	" Beaver," British steamer	Fouled with barque "Henry Buck" whilst
21	Deaver, Dittish socumer	
1878.		towing; little damage.
Jane.		
January I	.]" Lunalilo," Hawaian barque	Drifted during gale in Royal Roads; total loss;
		481 tons.
do 9	"Lady Sampson" British harana	Struck on Scrogg Rock during gale; not answer-
· · · · · ·	Dary Dempson, Direign barque	in hor bolm a come all demand a morel
	1	ing her helm; cargo all damaged; vessel
	†	much damaged,
	ł	i

The subjoined is a comparative statement of exports for the fiscal year, ended 30th June, 1877 and 1878:—

1877.			
Gold	\$1,188,739		
Coal	520,109		
Fisheries	105,603		
Lumber	287,042		
Fur, hides and oil	240,893		
Agricultural products	3,083		
Manufactures	1,500		
Total	\$2,346,969		
1878.			
Gold	\$1,031,461		
Coal			
Fisheries	423,840		
Lumber	327,360		
Furs, hides and oil	257,314		
Agricultural Products	462		
Total	\$2,768,147		

# DOMINION STEAMER.

The "Sir James Douglas" was laid up from the 1st of November, and was not intended to be put in commission until the 1st of April, 1878; but in consequence of telegraphic communication with Victoria being cut off, by the submarine cable between the islands of the San Juan group becoming defective, the steamer was employed carrying messages for the senior officer of Her Majesty's naval forces and the Provincial Government, war being at that time apparently imminent. The "Sir James Douglas" has not been so profitably employed during the past year as in former years. Scarcely any employment beyond the regular service of the Department has been found for the vessel to do during the past year, and it would, in my opinion, be better not to engage a crew except when required, retaining only the officers on pay, unless employment of a permanent character be found for her; by this means the vessel would always be ready for service and a crew shipped when necessary. I beg to append an extract of the log of the steamer for the fiscal year ended 30th June last.

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

(Signed)

JAMES COOPER,
Agent.

EXTRACT OF LOG OF DOMINION STEAMER "SIR JAMES DOUGLAS."

July 1st, 1877.—Ship lying at Victoria; employed cleaning boats.

July 2nd to 4th.—At Victoria; cleaning boats, and filling sacks with coal for Race Rocks Lighthouse.

July 5th.—Left Victoria for Race Rocks and delivered 20 tons of coal; some furniture and private stores for the light-keeper. 2 p.m., returned to Victoria and moored ship.

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July 6th to 9th.—At Victoria; cleaning and painting boats.

July 10th.—Left Victoria with supplies for the lighthouses in the Gulf of Georgia; 5 p.m., stopped at Point Atkinson and delivered 20 cases of coal oil to the lighthouse; 6 p.m., anchored in English Bay.

July 11th.—Left English Bay for Nanaimo and landed 30 cases of coal oil at Entrance Island Lighthouse. Noon, stopped at Nanaimo, and landed 100 coal sacks

on Vancouver Coal Company's wharf. 5 p.m., anchored in Percy Bay.

July 12th.—Left Percy Bay for Victoria; 2 p.m., arrived and moored ship.

July 13th.—At Victoria; cleaning ship and boats, coaling, &c.

July 14th.—Received the agent on board, and left for New Westminster. On our way up sounded over the Bar at the Sands Heads, and found that the channel is shifting to the northward; stopped off Annacis Island to examine a new fishing weir that was being put up. 6.30 p.m., arrived at New Westminster.

July 15th.—At New Westminster.

July 16th.—Left New Westminster for Victoria; 2 p.m., arrived and moored ship.

July 17th to 19th..—At Victoria; coaling ship and setting up the rigging.

July 20th.—Left Victoria with Telegraph Maintenance party on board to repair the cable between Lopez and Fidalgo Islands, Washington Territory. 6 p.m., anchored for the night in Kellet Bay, Lopez Island.

July 21st.—Left Kellet Bay with telegraph scow in tow, and commenced to heave in the cable. 4 p.m., the lifting gear of scow became defective; cut and buoyed the cable; and anchored in Burrow's Bay for the night.

July 22nd.—Left the scow in Burrows Bay and returned to Victoria with defec-

July 23rd.—At Victoria; coaling and cleaning ship.

July 24th.—Left Victoria for Port Townsend and Burrow's Bay with telegraph party. 10.30 a.m., stopped at Port Townsend and communicated with the United States Officers; proceeded thence to Burrow's Bay and took up two and a half miles of cable. 7 p.m., anchored in Burrow's Bay for the night.

July 25th.—Got underway and commenced to take up the west-end of cable. p.m., steam launch arrived from H.M.S. "Opal" for dispatches. 5 p.m., cable broke two and a half miles from the shore. 7.30 p.m., anchored in Kellet Bay for the night.

July 26th.—Left Kellet Bay with dispatches for eastern end of cable. Supplied "Opal's" launch with an operator and provisions; and left with scow in tow for Victoria with broken cable.

July 27th and 28th.—At Victoria; coaling and cleaning ship; operators repair-

July 29th.—Left Victoria with telegraph scow in tow for Rosario Strait, and laid the cable between Lopez and Fidal go Islands; 6 p.m., anchored at Kellet Bay for the night.

July 30th.—Employed testing and connecting the cable with the land line, and conveying despatches; 6 p.m., arrived at Victoria with scow in tow, and moored ship.

July 31st.—At Victoria; employed cleaning ship and boats.

August 1st to 3rd.—At Victoria; blacking funnel and painting ship.

August 4th.—Boat's crew employed at Beren's Island Lighthouse; 5 p.m., left Victoria with the agent on board, and scow in tow for Nanaimo; 9 p.m., anchored at James Island.

August 5th.—6 a.m. got underway and proceeded to Nanaimo; placed scow under Wellington coal shute, and left for Burrard Inlet; 7 p.m, anchored in Coal

August 6th-7 a.m. left Burrard Inlet and landed agent and mechanic at Point Atkinson Lighthouse; 3 p.m., left for Nanaimo, and landed the agent at Entrance Island Lighthouse; 7.30 p.m., anchored at Nanaimo.

August 7th to 9th.—At Nanaimo; water blown out of boiler, and the ship on

the beach, replacing copper on false keel.

August 10th.—At Departure Bay coaling ship.

August 11th.—Left for Victoria with scow in tow; 6 a.m., passed though Dodd's Narrows; strong ebb tide running; the ship lost steerage way and took a sheer to port when her heel touched the ground somewhere near the propeller.

August 12th to 22nd.—At Victoria; coaling ship; cleaning and painting boats;

sheathing deck and blacking coal scow; repairing fire hose and variously.

August 23rd.—Left Victoria with the agent and a mechanic on board for Point

Atkinson Lighthouse; 5.30 p.m., anchored in Burrard Inlet.

August 24th.-Left Burrard Inlet, and landed the agent and mechanic, also some supplies at Point Atkinson Lighthouse; 7.30 p.m., returned to Burrard Inlet, and anchored in Coal Harbour.

August 25th.—Left Burrard Inlet, and landed the agent and mechanic at Point Atkinson; 4 p.m. left for Nanaimo and landed the agent at Entrance Island Light-

house; 8 p.m. anchored at Nanaimo.

August 26th.—Noon; arrived at Victoria and moored ship.

August 27th to 29th.—At Victoria; cleaning ship, drying sails, and making cork fenders.

August 30th.—Left Victoria, and landed the agent at Race Rocks, Fisgard and Beren's Island Lighthouses; 3 p.m., returned to Victoria and moored ship.

August 31st to 2nd September.—At Victoria; cleaning ship, and filling sacks

with coal for Cape Beale Lighthouse.

September 3rd.—Left Victoria for Frazer River; 2 p.m., stopped and put agent on board Frazer River Lightship; 5 p.m., arrived at New Westminster.

September 4th.—Left New Westminster for Victoria, and put some ammunition and lamp weights on board of lightship. Touched ground several times coming down the river, opposite Ladner's landing; 6.15 p.m., arrived at Victoria, and moored ship.

September 5th to 10th.—At Victoria; coaling and cleaning ship, and filling sacks with coal for Cape Beale Lighthouse; engineer fitting a new piece of blow-off

pipe to ship's side.

September 11th.—Left Victoria with the agent on board, for Cape Beale Light-

house; 3 p.m., anchored in Port San Juan; weather thick.

September 12th-4.30 a.m., got underway and left Port San Juan; thick fog at times; 11 a.m., anchored in Dodger's Cove; noon, boats left with the agent, and supplies for the lighthouse; 5 p.m., boats returned, having landed the supplies.

September 13th.—4.30 a.m., left Dodger's Cove for Victoria; 2 p.m., stopped

and landed the agent at Race Rocks Lighthouse; 4 p.m., arrived at Victoria and

moored ship.

September 14th.—Left Victoria with scow in tow, and landed 12 tons of coal at

Fisgard Lighthouse; 3 p.m., returned to Victoria and moored ship.

September 15th and 16th.—At Victoria, preparing for the Frazer River buoy

September 17th.—Took in 90 fathoms of one-inch chain, and left Victoria with scow in tow for Nanaimo and Frazer River; 6.30 p.m., anchored in West Bay, Thetis Island.

September 18th.—6 a.m., left West Bay, and on arriving at Nanaimo, found that

the moorings were not ready.

September 19th.—At Nanaimo; received five mooring stones, four new and 15

old shackles; two swivels repaired and two old ones.

September 20th.—5 a.m., left Nanaimo with scow in tow, and four extra men to assist on Frazer River buoy service; 11 a.m., arrived off the lightship, and took the captain on board to conduct the work; too much wind and sea to commence operations; anchored scow at the mouth of the river and proceeded to New Westminster for paints, oil and brushes, and spare buoy; 6.30 p.m., anchored at the mouth of the river for the night.

September 21st.—Got underway and unmoored the lightship, but after heaving 90 fathoms of the S.E. chain, found that the anchor was 12 feet deep in the sand, and immovable; delivered 15 tons of coal to the lightship, and secured her for the night; anchored at the mouth of the river, and received two more extra men per

"Enterprise," from Victoria.

September 22nd.—Strong south-east gales with rain; too much wind and sea to work; p.m., took up the inside buoys and scraped them; 6.30 p.m., anchored at the mouth of the river.

September 23rd.—South-east gales with rain; got underway and towed the scow

to New Westminster, and placed the buoys under a shed for painting.

September 24th and 25th.—South-east gales with rain; employed beating rust

off, and painting buoys.

September 26th.—Weather clearing; left New Westminster and steamed to Sand Heads; replaced the upper buoys and took up five more for painting; 7 p.m., anchored at the mouth of the river.

September 27th.—Too much rain to work at buoys on punt; left for New West-minster, and placed buoys under cover for cleaning and painting; received Mr. Tims

on board to be conveyed to Victoria.

September 28th.—5.30 a.m., received four cords of wood, and left for Victoria.

3 p.m. arrived at Victoria and discharged one of the extra men.

September 29th.—9 a.m., left Victoria on return to New Westminster; 7 p.m., arrived and made fast to wharf.

September 30th.—At New Westminster.

October 1st.—7.30 a.m., left New Westminster for the Sand Heads, and laid the five buoys in position, and took the remainder to be cleaned &c.; 7 p.m., anchored at mouth of the river.

October 2nd.—Painting buoys and sounding the river at Ladner's Crossing.

October 3rd.—Towed the spare buoy to New Westminster and made it fast to wharf; took in two cords of wood and left with scow in tow for the Sand Heads, and laid the five outside huoys; p.m. removed the lightship and discharged another extra man to return to Victoria; 6 p.m. anchored at the mouth of the river.

October 4th.—6.30 a.m., got under way and placed the N.W. anchor of the lightship in 20 fathoms of water; having supplied her with 30 fathoms of new cable, and the buoys with 15 fathoms of new and 30 fathoms of old cable, and one stone anchor which completed the service; 2 p.m., left for English Bay and took up the Spanish Bank buoy; 6 p.m., anchored in the Bay.

October 5th.—Employed cleaning and painting the buoy and sounding the

bank.

October 6th—7 a.m., got under way and placed the buoy in position on Spanish Bank; found that the kedge and temporary buoy had been stolen during the night; 2 p.m., arrived at Departure Bay, Nanaimo, and discharged the extra men, having employed altogether equal to eighty-four days extra labour.

October 7th.—Placed the ship on the beach, and blew the water out of boiler in order to examine her bottom, and found that on 11th August last, while passing through Dodd's Narrows, she had touched the ground twice with her false keel and

torn the copper off it near the propeller.

October 8th.—Hauled off the beach and proceeded to coal wharf. It being

neap-tide, could not repair the copper under the keel.

October 9th.—Received ninety-four tons of coal on board of scow, and left for

Victoria; 6 p.m., arrived and moored ship.

October 10th to 21st.—At Victoria, coaling and cleaning ship, making new life buoys, and painting outside, &c. Delivered twelves cases of oil, and half a ton of coal to Beren's Island Lighthouse.

October 22nd.—9.30 a.m., left for Nanaimo, with the agent on board; 5.30 p.m.,

anchored in Nanaimo Harbour.

October 23rd.—8 a.m. left Nanaimo, and landed the agent, a carpenter, and lightkeeper's wife, at Entrance Island; also four panes of glass received from Boren's Island Lighthouse; 7.30 p.m., returned to Victoria and moored ship.

October 24th.—At Victoria, drying sails and filling sacks with coal for Race

Rocks.

October 25th—Left with agent on board for Race Rocks and Fisgard Island Lighthouse; delivered two and a half tons of coal at Race Rocks; 3.30 p.m., returned to Victoria and moored ship.

October 26th-.. 10.00 a.m., left Victoria for Burrard Inlet, on railway survey

service; 7.30 p.m., anchored in Coal Harbour.

October 27th.—7.00 a.m., received Mr. Gamsby's party of surveyors on board, and left for Victoria; 3.30 p.m., returned to Victoria and moored ship. Landed surveyors and baggage &c.

October 28th.—At Victoria.

October 29th.—Left for Sooke Harbour, and received from Mr. Muir 1,059 feet of lumber, and seventy-six gallons of fish oil, and delivered to him twenty-five gallons of condemned oil, and two empty tins.

October 30th.—Left Sooke for Race Rocks, and landed the lumber and sixty-four

gallons of of oil at the lighthouse; 1 p.m., returned to Victoria and moored ship.

October 31st.—Got under way and towed the scow out to Brotchie's Ledge, weighed and examined the moorings of the buoy, put six feet of new chain to the upper end of it, and replaced the buoy in position.

November 1st.—At Victoria; coaling ship and receiving supplies for the Gulf

Lighthouses.

November 2nd.—930 a.m., left Victoria with agent on board for Nanaimo;

5.45 p.m., anchored in Nanaimo Harbour.

November 3rd.—Landed agent and about 1,000 feet of lumber at Entrance Island Lighthouse; 3 pm., landed agent and twenty-five cases of coal oil at Point Atkinson Lighthouse; 5 pm., anchored in Coal Harbour, Burrard Inlet.

November 4th.—7.30 a.m., got under way and called at the Road End, Moody's

Ville, and the lightship; 4.30 p.m., arrived at New Westminster.

November 5th.—9.30 a.m., left New Westminster for Victoria; noon, stopped off the lightship, and received a bell to be repaired; 6 p.m., arrived at Victoria.

November 6th.—At Victoria, employed coaling ship.

November 7th.—3.45 a.m., left Victoria with the captain and crew of the barque "Swordfish" ashore on the Bedford Rocks. Received a full load of her

effects, and returned to Victoria at 5 p.m.

November 8th.—Discharged all the goods and effects from the "Swordfish" on Hudson's Bay wharf, and took on board Lloyd's agent, and surveyors, and returned to the wreck; 4.30 p.m., returned to Victoria, and delivered a quantity of wines, groceries and crockery ware, on Dickson Campbell's wharf.

November 9th to 13th.—At Victoria, cleaning ship, refitting boats gear, drying

sails and awnings, and receiving supplies.

November 4th.—Left Victoria with scow in tow for Esquimalt; landed seven tons of stone ballast on Fisgard Lighthouse wharf, and four casks of oil at Race Rocks lighthouse; 7 p.m., returned to Victoria.

November 15th and 16th.—Coaling and cleaning ship; delivered four tons of

coal to the Custom House.

November 17th.—2 p.m., left Victoria with telegraph scow in tow to repair the cable between Lopez and San Juan Islands; 5 p.m., strong gale from the S.E. anchored in Cadboro' Bay.

November 18th.—Weather clearing; got under way, and took scow in tow; 11 a.m.; arrived in the middle channel, and examined the shore ends of the cable;

4.30 p.m., strong S.W. gales; anchored in Lagoon Bay.

November 19th.—9.30 a.m., got under way and commenced taking up the cable, and after securing about a mile of it the cable broke; steamed to the east end and took it on board, but on reaching deep water that also broke. 430 p.m., anchored in Friday Harbour.

November 20th to 22nd.—Employed repairing the old cable and dredging and

grappling for the broken part; anchored at nights in Friday Harbour.

November 23rd.—Employed dredging for broken cable; p.m., laid another cable from San Juan to Lopez Island, and anchored in Friday Harbour.

November 24th.—Heavy S.W. gales; anchored in Friday Harbour.

November 25th.—Left Friday Harbour with scow in tow for Victoria; 11 30 a.m., arrived and moored ship.

November 26th to 28th.—At Victoria, coaling and cleaning ship.

November 29th.—Left Victoria with telegraph scow in tow for Griffin Bay, and hove up the cable in middle channel.

November 30th.—Laid a new cable between San Juan and Lopez Islands, and

anchored in Friday Harbour for the night.

December 1st.—Got under way and examined the cables at San Juan and Lopez

Islands, and returned thence to Victoria.

December 2nd and 3rd.—At Victoria, drying sails and stowing away working gear, taking an inventory of stores, and mooring ship for winter quarters; 5 p.m., discharged the crew; engineer and mate kept on full pay (without food) as ship-

December 4th to 31st—Ship lying up in winter quarters.

1878. January 1st to February 11th.—Ship lying up in winter quarters.

February 12th.—Shipped the crew on daily wages and made ready for sea. February 13th.—9.30 a.m., left Victoria, with scow in tow, to take up the telegraph cable between Sydney and San Juan Islands in the Haro Strait; 5 p.m., anchored in Roach Harbour.

February 14th.—Took up about a mile of east end of cable; but on reaching

deep water it broke; p.m., boisterous weather; anchored in Roach Harbour.

February 15th.—Got under way and took in west end of cable; 3 p.m., cable broke in about 100 fathoms of water; 6 p.m, returned to Victoria. February 16th.—Shipped the crew for permanent service.

February 17th.—8 a.m., left Victoria with telegraph despatches; 1 p.m., heavy

S.E. gales; anchored in Friday Harbour.

February 18th.—Got under way and left for Port Townsend; noon, S.E. gale blowing; anchored under Point Wilson, and found the telegraph line broken; got under way and left for Seattle; 6 p.m., anchored in Apple Tree Cove.

February 19th.—8 a.m., arrived at Seattle, and delivered despatches; 11 a.m., left Seattle for Victoria with return despatches; 9 p.m., touched the ground and fouled the buoy on the Spit in Victoria Harbour; the buoy floating only eight in ches above water could not be seen at night.

February 20th.—At Victoria; coaling ship.

February 21st.—Received a small spar and two flags, also a canvas ball for Race Rocks; 10.30 a.m., landed the agent and two carpenters, with some supplies, at the lighthouse; 5.30 p.m., returned to Victoria.

February 22nd.—Left Victoria for Port Townsend on telegraph service; 3 p.m.,

anchored in the Bay and communicated with the shore.

February 23rd.—2.30 p.m., received despatches for the Navy and private telegrams and left for Esquimalt; 6.30 p.m., delivered despatches on board H.M.S "Opal;" 7.30 p.m., arrived at Victoria and moored ship.

February 24th.—At Victoria.

February 25th.—Left Victoria, with coal scow in tow, for Nanaimo; 10.30 p.m.,

anchored at Round Island.

February 26th.—8 a.m., arrived at the Wellington Wharf, Nanaimo, and took in 86 tons of coal; noon, left with scow in tow for Victoria; 6.40 p.m., anchored in Long Harbour.

February 27th.—1 p.m., arrived at Victoria and moored scow; 3 p.m., left for

Port Townsend on telegraph service; 8 p.m., anchored in the bay.

February 25th.—No telegraphic despatches had arrived up to 4 p.m.; left for Victoria in order to be ready to lay the cable in the Haro Strait to-morrow; 7.45 p.m., arrived at Victoria.

March 1st.—At Victoria; coaling ship and taking in supplies; 4 p.m., left with the telegraph scow in tow for the Haro Strait; 630 p.m., anchored in Cadboro

Bay.

March 2nd.—6 a.m., left the anchorage, and laid the cable from Sydney to Henry

Island; 7.30 p.m., anchored in Roach Harbour.

March 3rd, 4th and 5th.—Heavy gales from S.E. and S.W.; ship anchored at Roach Harbour; telegraph party repairing old and constructing new land line on San Juan and Henry Islands.

March 6th—Wind decreasing; laid a short cable across Mosquito Pass.

March 7th:—6 a.m., left Roach Harbour with telegraph sloop in tow for Rosario Strait, and examined both ends of cable; 6 p.m., anchored in Friday Harbour; S.W. gales.

March 8th.—6.30 a.m., got under way and visited the Stations at Sydney Island and Roach Harbour, to test the cable; took telegraph scow in tow and returned to

Victoria; 1 p.m., arrived and moored ship.

March 9th to 11th.—At Victoria; coaling and cleaning ship and painting outside; received supplies for Gulf lights, and delivered ten cases of coal oil to Beren's Island Lighthouse.

March 12th.—9.40 a.m., left Victoria with agent on board and Mr. Kenny, for Entrance Island Lighthouse; 5.40 p.m., anchored at Nanaimo in five fathous water.

March 13th.—Got under way at 9.40 a.m., and landed the agent, with Messrs. Kenny and Finney at Entrance Island; noor, left for Burrard Inlet: 5 p.m., anchored in Coal Harbour.

March 14th.—Left Burrard Inlet for Victoria, and landed the agent Point Atkinson Lighthouse, and the Fraser River Lightship; 7 p.m., arrived at Victoria.

March 15th to 19th.—At Victoria; scraping masts and cleaning ships.

March 20th.—11.20 a.m., left Victoria and landed the agent, with some supplies, at Race Rocks.

March 21st to April 9th.—At Victoria; cleaning and painting boats and ship inside and outside; making rope fenders; attending the harbour master with boat's crew; lifting, cleaning, painting and replacing Victoria Harbour buoys, &c.

April 10th.—9.15 a.m., left Victoria with agent on board; 5.40 p.m., anchored

at Nanaimo.

April 11th.—9.30 a.m., left Nanaimo and proceeded to render assistance to the schooner "Experiment," ashore on Gabriola Reef, and found too much wind and sea to approach her; anchored in six fathoms water inside Flat Top Islands, and in getting under way with the flood tide, the anchor got foul of the boulders, and while turning ahead and astern to clear it, the cable parted at the hawsepipe, and lost the anchor with seven fathom of chain. Ran out a hawser to the wreck, and tried to tow her off but failed to move her; 7.45 p.m., returned to Nanaimo.

April 12th.—9 a.m., left Nanaimo and landed the agent and Mr. Finney and some paints at Entrance Island Lighthouse; took bearing of a sunken rock lately discovered inside of the Island; 11.30 a.m., left for Burrard Inlet, and landed the agent, with some paints, at Point Atkinson Lighthouse; 4.15 p.m., anchored in Coal

Harbour.

April 13th.—Left Burrard Inlet for Victoria; landed some nails at Point Atkinson Lighthouse, and communicated with the lightship; 6 p.m., arrived at Victoria.

April 14th te 19th.—At Victoria, coaling ship, delivering coal to Marine Hospital and holystoning decks.

April 20th. - 8 a.m., left Victoria for Nanaimo with the coal scow in tow;

6 p.m., anchored in Clam Bay.

April 21st.—2 p.m., arrived at Nanaimo and commenced taking in coal at the Wellington wharf.

April 22nd.—Received 95 tons of coal and took scow in tow for Victoria; 6.30 p.m., anchored in Long Harbour.

April 23rd.—2 p.m., arrived at Victoria and moored ship.

April 24th.—3 p.m., left Victoria with a ship carpenter and a new anchor and chain for Fraser River lightship; 7.30 p,m., anchored in Plumper's Pass.

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April 25th.—8 a.m., arrived at the lightship and commenced grappling for the

lost anchor and chain, but failed to recover it; went alongside of the lightship and re-moored her with a new anchor and 75 fathoms of chain to the N.W.; 6.30 p.m. anchored at James Island.

April 26th.—10 a.m., arrived at Victoria and landed the ship carpenter.

April 27th to 1st of May.—At Victoria; coaling and cleaning ship, painting buoys for Victoria Harbour, and receiving supplies for Cape Beale Lighthouse.

May 2nd.—4 p.m., left Victoria with agent, Messrs. Holmes and Spring for Cape

Beale lighthouse.

May 3rd.—6 a.m., anchored in Dodger's Cove; 8 a.m., got under way and landed the agent and party at Cape Beale Lighthouse; 2.30 p.m., returned to Dodger's Cove; too much sea to land the supplies.

May 4th.—Too much sea at the lighthouse to communicate; landed nine hundred gallons of coal oil and some provisions at Dodger's Cove, and returned to Victoria;

9.30 p.m., arrived and moored ship.

May 5th to 16th.—At Victoria; coaling ship, painting harbour buoys and caulk-

ing, scraping and holystoning fore part of deck.

May 17th.—10.15 a.m., left Victoria for New Westminstor, and took the spare buoy in tow to secure the lightship's moorings; 8 p.m., made fast to Ewin's wharf.

May 18th.—8.30 a.m., unmoored the lightship and shackled the moorings to the spare buoy; 6.30 p.m., arrived at Victoria and anchored the lightship off Cook's Ways.

May 19th to 26th.—At Victoria, coaling ship, getting mooring stones on board, launching and placing new buoys at the entrance of Victoria harbour, and cleaning

May 27th.—Left Victoria with agent, and landed him, with supplies, at Race Rocks Lighthouse; 5 p.m., returned to Victoria.

May 28th and 29th.—At Victoria: coaling and cleaning ship.

May 30th, 9 a.m.—Left Victoria to survey the Sand Heads and part of the

Frazer River; 4.30 p.m., anchored off Ladner's Landing.

May 31st .-- Anchored off Ladner's Landing; employed surveying the channel. June 1st.—Got under way and anchored at the Sand Heads, and commenced surveying the charnel and bar near the position of the lightship; 2 p.m., completed the work and got under way; 9 p.m., arrived at Victoria.

June 2nd to 9th.—At Victoria, coaling and cleaning ship and assisting the crew

of the lightship refitting ships.

June 10th.—Supplied the lightship with five tons of coal and fresh water, and

took her in tow for the Sand Heads; 8.30 p.m., anchored at James Island.

June 11th, 3.30 a.m.—Got under way and proceeded to Sand Heads; moored the lightship and took the spare buoy in tow for Victoria; 11 p.m., anchored in Plumper's Pass.

June 12th, 2.30 p.m.—Arrived at Victoria; and moored ship.

June 13th to 16th.—At Victoria; cleaning ship and drying sails, strapping and painting temporary buoy, shifting air-pump plunger, and repairing damage done to taffrail by lightship.

June 17th.—Left Victoria with harbour master and gear to lay buoys at Esqui-

malt; 6 p.m., returned to Victoria and moored ship.

June 18th, 1 p.m.—Left Victoria for the Gulf Ports with the agent on board; 7 p.m., stopped at the Frezer River Lightship; 9.45 p.m., anchored at Burrard Inlet.

June 19th, 9 a.m.—Got underway and landed agent at Hastings Mill, Point

Atkinson Lighthouse, and Entrance Island; 5.30 p.m., anchored at Nanaimo.

June 20th, 5 a.m.—Left Nanaimo for Bayne's Sound, and whitewashed the

beacons leading over Kelp Bar; 9 p.m., returned to Nanaimo. June 21st.—Left Nanaimo with some lumber for Entrance Island Lighthouse; 1

p.m., returned to Nanaimo.

June 22nd.-9.30 a.m., left Nanaimo with a new buoy in tow, for Brotchie's Ledge; 9.30 p.m., arrived at Victoria and moored the ship.

June 23rd and 24th.—At Victoria; coaling ships, and painting new buoy for

Brotchie's Ledge.

June 25th, 9.20 a.m.—Got underway and took scow and buoy in tow for Brotchie's Ledge; weighed and examined the moorings and placed the buoy in position; 4 p.m., left with scow in tow for Nanaimo; 9 p.m., anchored at James Island.

June 26th, 5 a.m.—Left the anchorage, and at 2 p.m. arrived at Departure Bay,

Nanaimo, and commenced coaling.

June 27th, 11 a.m.—Left Departure Bay with scow in tow for Victoria, with 93½ tons of coal; 7 p.m., anchored in Long Harbour for the night.

June 28th, 6 a.m.—Left Long Harbour with scow in tow; 4 p.m., arrived at

Victoria and moored the ship.

June 29th and 30th.—At Victoria; coaling and cleaning ship.

(Signed) JOHN DEVEREUX.

Commander.

# APPENDIX No. 6.

REPORT OF THE AGENT FOR NOVA SCOTIA OF THE DEPARTMENT OF MARINE AND FISHERIES, FOR THE YEAR ENDED 30th JUNE, 1878.

Halifax, Nova Scotia. 30th November, 1878.

To the Hon. J. C. Pops,
Minister of Marine and Fisheries,
Ottawa.

Sir,—I have the honour to submit my Report in the various services connected

with this branch of the Department for the past year.

The accounts which are herewith in detail show the expenditure for the year ending 30th June, 1878, to have been \$237,169.48. For the previous year it was \$236,926.28 which was considerably in excess of the expenditure of any of the other branches, and was somewhat more than one-fourth of the total expenditure of the Department.

Last year \$13,500 was expended for construction of lights, &c., and \$131,702.81 for maintenance of lights, fog-whistles, buoys and beacons, signal stations and humane establishments. This sum includes the office expenses of this Agency.

In the previous year the expenditure for these services was \$127,999.70 or some \$22,000 greater than that of any of the other branches, and over one-third of

the whole amount paid for maintenance of all the lights, &c., of the Dominion.

This heavy comparative expenditure is no doubt largely due to the fact that nearly all the lights, fog-whistles, buoys, signal stations and humane establishments within this Agency have to be maintained in constant efficiency all the year round; unlike those of the Quebec Agency and those above Montreal in the rivers and lakes, which, with a very few exceptions, are not kept up for several months during which navigation is closed, and active operations are necessarily suspended.

Besides this a much greater number of large coast lights are comprised in this Branch than any other of the Department—there being some 67 important coast

lights, and about 41 harbor and minor coast lights.

At the present time there are in operation in this Agency 110 lights, nine fog whistles, four signal-gun stations, one lightship, two automatic signal buoys, six large iron bell buoys, five stationary beacons, and about 263 iron and wooden can and spar buoys, three humane establishments for the relief of wrecked seamen,

seven life boat stations and four signal stations.

There are now under construction, but not yet in operation, a lighthouse at Isle Haut, Bay of Fundy, and one at Sheet Harbour, Halifax Co. Tenders have been asked for the construction of a light at Pease's Island, Yarmouth Co., and for one at Wedge Island, and one at Three Top Island, Guysboro' Co., and appropriations were made last Session for a light near Point Michaux, for a beacon light at the entrance of Harbour au Bouche, and to replace the light in Shelburne Harbour, which was burned down in February, 1878. Besides these a Neptune steam fog-horn is now in store, and the building to receive it framed, only waiting for the site to be determined.

The Shelburne Harbour light, which was a small tower, erected near Sand Point, at the entrance to Shelburne Harbour, was destroyed by fire on the night of 20th February, 1878. No cause could be assigned for the origin of the fire. The keeper had left the lantern about 10 o'clock and the building was burned about twelve. An

investigation was held but nothing of importance elicited. No time should be lost in rebuilding this light, but I would strongly recommend an alteration of the site to Surf Point on the other side of the harbour. As previously situated the light formed no guide to avoid the chief danger, after passing the Light and McNutt's Island, that is the middle ground shoal, and was too far inland to mark the danger of the Sand Spit. On Surf Point, both these objects would be attained, besides a good mark up the harbour.

Another casualty occurred during the month of October, 1878. The large iron bell buoy moored off the Brazil Rock disappeared during a heavy gale. It has probably broke its moorings and drifted out to sea. It was reported to have been seen off the coast about Shelburne some days later, but no reliable account of its whereabouts could be obtained. I immediately despatched the steamer "Glendon," which was then at Liverpool, in search of the buoy, but all efforts to recover it have proved fruitless. As the spare buoy was required to replace the Trinity Ledge buoy, which had to be taken in for repairs, I advertised the loss of the Brazil buoy, and the public were informed that it would not be replaced until further notice.

On the 1st July, 1878, the fog-whistle on the West end of Sable Island ceased to operate. The boiler required large repairs, and as the usefulness of the signal, situated so many miles from the danger, was considered very doubtful, while the cost of its maintenance was large, it was decided to discontinue it, and notice to that

effect was given in.

The engine is now in store, but the boiler has not yet been brought off the Island. In previous Reports, notably those of last year, and 1874, detailed information was given respecting each light station under charge of this Agency. This included the position and description of the light, tower and other buildings, the character of the illuminating apparatus, size and shape of lantern, name, age, and date of appointment of keeper, &c., &c., and it will therefore be unnecessary in this present Report to repeat this information. I will therefore content myself with briefly stating the condition of the various lights, the date of inspection, quantity of oil delivered to each, noting any repairs or alterations that may have been made since my last Report, and calling attention to any that may be necessary next season.

## CHEBUCTO HEAD.

This light was inspected and supplied with 1,114 gallons of oil on 24th August. A crane has been placed at the top of the cliff to assist in the delivering of the oil and supplies. The proposed road to Duncan's Cove has not yet been made. The basement of the building has been ceiled and made habitable.

# SAMBRO' LIGHT AND FOG-WHISTLE.

This Station was inspected at various times during the season, and 524 gallons of oil, together with the usual supplies, delivered. The light-tower and premises generally are in good order; the buildings have been painted and the lantern new glazed where necessary.

A good deal of trouble has arisen at this Station in the management of the condensing machinery and fog-whistle, and matters are not yet in a satisfactory condition. At the present time the light is kept by Mr. Alfred Gilkie, and an engineer with an assistant are in charge of the fog-whistle. The engineer is at \$2

and the assistant at \$1 per day, and board.

The amount allowed for an engineer, who is required to keep a competent assistant, is only \$800, and I find it very difficult to get a good man to accept the situation at that rate. The temporary arrangement at present costs a great deal more. But I do not think any satisfactory permanent settlement can be made in the basis of the sum granted for this service.

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#### BETTY'S ISLAND

Was inspected on 5th October, 1878, and 818 gallons of oil delivered. The premises generally in good order. The house and fences having been largely repaired last autumn. As soon as arrangements can be made respecting the land, a stone house, the materials of which are in hand, will be erected at the landing place at Gallant's Cove.

#### PEGGY'S POINT

Was inspected on 5th October, 1878, and 242 gallons of oil delivered. The late keeper William Crooks died on 2nd April, 1878, and Samuel J. Massie was appointed to fill the vacancy at the same salary of \$350, commencing 13th April, 1878.

Some small repairs have been done to the roof and deck to make the building

tight, but further repairs will be required next year.

## MARGARET'S BAY

Was inspected on 30th September, and supplied with 967 gallons of oil. The establishment here is clean and well kept, and a small expenditure has been made in repairs to the landing. The keeper reports the clapboards defective and the building leaky. This will have to be attended to next season.

#### CHESTER

Was inspected on 30th September, and 529 gallons of oil delivered. The premises are in good order.

# MAHONE BAY OR HOBSON'S NOSE.

The lantern at this Station was destroyed by fire on the night of the July. It had been made of wood protected with iron and zinc. It was found impossible to repair the lantern, and there being no means of exhibiting a temporary light, notice was given that the light would not be exhibited for a short time.

I had on hand an iron lantern  $7\frac{1}{2}$  feet in diameter, having 12 sides and with plate glass 24 x 66 inches, which had been removed from Egg Island, as being too small for that important revolving light. This lantern was put in thorough order and sent to Hobson's Nose Station 24th July. A suitable deck had to be prepared to receive it, and it was erected and the light exhibited on

An oil store was built and the bank protected, and a capstan has also been supplied for hauling up boats. The premises were inspected several times during the

year, and gallons of oil delivered.

The lamps and reflectors which were injured by the fire have since been repaired, and are now being used at the Station. The substitution of an iron lantern for the wooden one originally built there will no doubt afford an additional security against damage by fire.

#### CROSS ISLAND.

This Station was inspected on 5th October, and 480 gallons of oil delivered. The

premises are now in good repair and the light well kept.

A 21 lb. iron carronade was sent to this place to be used as a signal during thick and foggy weather. A zinc magazine with-metal lined cases has also been furnished.

This Island would seem to be the best place to erect the Neptune fog-horn lately supplied for some point on the coast of Lunenburg County. The Harbour of Lunenburg is of considerable importance, a steamer calling there twice a week, and it is proposed to make it the terminus of the Nictaux and Annapolis Railway.

#### BATTERY POINT

Was inspected on the 5th October, and 190 gallons of oil delivered. The house is being painted and the metal covering of the deck and lantern repaired. Some new reflectors will have to be supplied; otherwise the premises are in good order.

#### 1RONBOUND

Was inspected on the 5th October, and 193 gallons of oil delivered.

Considerable repairs are now going on at this Station and will be completed in a few days. The lantern deck is being removed and the old metal stripped off and replaced with canvas. The chimney is rebuilt from the deck up, the lantern base reshingled, as also the roof of the oil store, and the drain which is stopped reopened.

The accommodation for the light-keeper and family has been very small, only the room afforded by the tower—the basement was used as a cellar, and in winter it was subject to constant flooding. A kitchen is now being built on one side of the tower, which will add materially to the comfort and accommodation of the keeper.

# MOSER'S ISLAND.

Was inspected on the 5th of October, and 241 gallons of oil supplied. The steps at entrance to lighthouse have been repaired and the premises are in good order.

#### LA HAVE.

Inspected on 5th October, and 145 gallons of oil delivered. Premises in good order, the light-house having been built in 1877. The keeper is desirous of having a well dug, which will be attended to next year.

#### PORT MEDWAY.

Inspected on 4th October, and 144 gallons of oil delivered. Some very necessary repairs are now nearly completed at this Station. Shingling of roof is being repaired and leaks stopped and chimney retopped. Further repairs to the building and a new lantern will be necessary next year.

#### LIVERPOOL OR COFFIN'S ISLAND.

Inspected on 4th June, and 192 gallons of oil delivered, and inspected a second time on 1st October.

A new lighting apparatus and revolving machinery has been supplied to this important Station. The light is now shewn by means of six No. 1 circular-wick lamps, with  $20 \times 12\frac{1}{2}$ -inch reflectors and constant level reservoir. The lamps are arranged in two groups of three each. Three spare lamps and one spare reservoir are on hand. An iron floor with ventilators has been fitted to the lantern. The clock machinery was found difficult to regulate—new gear new cut for the clock and the motion reduced, since which the keeper reports the revolving apparatus as working admirably.

Very extensive and thorough repairs have been made at this Station. As a large sum has been expended here, it may be well to give the following details of work done.

On removing the ballast, the lower frame of the tower, sills and girths were found to be completely rotten, also the greater part of the frame of floor above the ballast. The whole of this has been removed and the lower frame work boxed in with salt for ten inches and the floor laid in lime, and the lower floor covered with salt under the ballast. Sixteen ventilator holes have been cut in top course of foundation. Three window frames and casings and four outside sashes have been put

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in. A leak stopped near top of tower and the whole of the shingling of tower renailed with galvanized nails. An oil store 22 x 15 feet has been built and a platform

12 x 5 feet for the gun and box for rammers, sponges, &c.

The barn and wood shed have been placed in thorough repair. The dwelling house has had a a new sill placed at south-west and south-east corners, the roof shingled, the porch underpinned and plastered inside. The chimney has been taken down to the roof, made tight with proper lead flushings and rebuilt with hard brick and cement. Six outside sashes have been provided, the kitchen ceiling plastered, and a spout from kitchen and drain made to remove cesspool from north-east corner of house. All the buildings have been painted and the Station may now be said to be in thorough repair.

A new 24 pounder iron carronade has been supplied, and a zinc magazine furnished, with metal lined cases for ammunition. On 14th June, 1878, there were on hand 94 cartridges of 2½ lbs. each. The instructions respecting the firing the gun are as

In foggy weather the keeper will pay attention to fog-signals which may be made off the coast within hearing of his Station, and will discharge the gun in reply, and will continue firing in response to such signals (if continued) at intervals of ten minutes. When the vessel making the signal has, in his judgment, passed seaward or safely entered the port, he will cease firing. A record is to be kept of the date and time of signals made and to what signals they were in reply and the number of discharges on each occasion.

#### BROOKLYN PIER.

In last year's Report the inefficiency of the small green light exhibited at this point was referred to, and the necessity of a much larger one urged. This has been accomplished this autumn. The new building is a square wooden tower 15 feet 9 inches at bottom and 6 feet at top, and 26 feet 6 inches from underside of sills to top of plates. It is built at the end of the breakwater, and rests on timber 12 inches square bolted down to the top ties of the pier. The bottom of the tower is ballasted with stone. The lantern, which is of iron, is  $5\frac{1}{3}$  feet in diameter, having six sides glazed with plate glass,  $30 \times 36$  inches, having two blank sides. The lighting apparatus consists of three mammoth flat-wick lamps, with 17 x 16 inch reflectors and constant level reservoirs on an iron stand. One of these lamps is provided with green glass shades so as show a green light across the channel, seaward. The other shows white, the dark panes are in direction of the land. The lantern and lighting apparatus cost \$434.68; the contract for the building was taken by Mr. G. S. Parker, for \$494.

The new light is about being put in operation. 191 gallons of oil delivered.

#### FORT POINT.

Inspected on 14th June and 1st October, and 288 gallons of oil delivered. The lighthouse has been painted and a suitable porch built for oil, stores and fuel. The north corner of the building was only about three feet from the edge of the bank, which was of earth liable to be washed away by rain and the sea. An inexpensive work for protection has been built, which will answer for many years. A drain has also been dug to carry the water from the house, and the lighthouse has been painted.

## PORT MOUTON.

Inspected on 4th October, and 288 gallons of oil delivered. The Station is in good order. The keeper is still applying for repayment of sums expended by him in building a kitchen. 145

#### LITTLE HOPE.

Inspected on the 17th June, and 524 gallons of oil delivered.

The boat landing at this Station was found to be worm-eaten at the lower end, and did not extend sufficiently far down to be useful at low tides. The landing has since been renewed and extended. The breakwater is built of 12-inch square hemlock timber, dovetailed at angles and tied with dovetailed crossties. It has two ballast floors and is in good condition. Two of the lower timbers on the western side of the south-west angle have been apparently fitted loosely in the dovetail, and the weight of the superstructure or force of the sea has driven them home to the shoulders. The lowest piece was about three inches within the plumb line at the angle, and on the line at its other end, and the next one about one and a half inches within the line at the angle, and on the line at the other end. The remainder of the timber is in place and the whole square and firm. The breakwater does not seem to be at all endangered by the movement of the two pieces of timber referred to.

It has been decided upon, however, to prevent the large stones which are thrown up by the sea from breaking the dovetail at the angles, to build a protection of standing timber as follows:—A horizontal piece to be bolted to the largest rocks at the foot of the breakwater, and another bolted to the sides of the angle of breakwater, and standing timber flattened at the sides and tapered to suit the angle bolted to them, the lower end to be covered 5 feet in the beach by means of a trench filled in with large stones, and the upper end to be made even capped by a strong piece bolted to the breakwater. The standing timber to be protected with a solid pile of

stones between it and the breakwater.

## PORT L'HEBERT.

Inspected 3rd October, and 146 gallons of oil delivered. An oil store is required at this Station so that the oil may be removed out of the tower, and necessary accommodation furnished for the keeper.

#### GULL ROCK.

Inspected 3rd October, and 288 gallons of oil delivered. The work required at this Station has not yet been done.

# CARTER'S ISLAND.

Inspected 2nd October, and 192 gallons of oil delivered. The buildings have been painted, and a lighter boat is being now built to replace the present one which is too heavy to handle during the winter season.

#### SHELBURNE.

Inspected on 12th July, and 812 gallons of oil delivered. The tower and buildings have been painted and an oil store 21 x 12 feet is now being erected. A platform for the signal gun is being made. A zinc magazine with metal-lined cases has also been supplied.

#### SHELBURNE HARBOUR.

The light at this Station has been extinguished since 20th February, the light-

house having been destroyed by fire.

An appropriation was made last session of Parliament for a new building which it is proposed to erect on the other side of the harbour for reasons which I have already given.

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#### NEGRO ISLAND.

Inspected on 11th July, and 283 gallons of oil delivered. The landing made last year at this Station was much injured by a gale, but it has been repaired and, is now in good order.

#### BARRINGTON.

Inspected 28th February and 11th July, and 574 gallons of oil delivered. The buildings have been painted and a good and substantial wharf built. The lantern is old and unserviceable, and a new one 9\frac{1}{3} feet in diameter should be crected next summer.

#### CAPE SABLE LIGHT AND FOG-WHISTLE.

Inspected 1st March, and 1,609 gallons of oil delivered. Premises in good order. The lantern is not sufficiently ventilated and the glass 12 x 18 inches too small, and the glazing not sufficiently high for the lighting apparatus.

At the fog-whistle a number of tools were made by the engineer's assistant;

small repairs to boiler and a platform and iron ladder to the whistle.

A coal shed 40 x 22 feet has been sent to the Station and is now being erected near the shore. This was greatly required as a large quantity of coal was lost by the drifting sands. A fence will be required to prevent the sand from drifting over the grass plot around the building. On 2nd May 100 tons of coals were landed.

#### BON PORTAGE.

Inspected on 19th June, and 617 gallons of oil delivered. The improvements to the road at this Station referred to in my last Report have been done, and are as follows:— The road is about 4,000 feet in length from lighthouse to landing on east side of the Island, and at three places there are swamps each about 100 feet in length. The swamps have been bridgedby cross timbers laid on a filling of brush and three longitudinal string pieces have been laid on and covered with cross timber flattened at top. Proper water courses have been made underneath where necessary to permit the drainage to pass. Stumps have been removed and the road ditched by a depth of 2 feet on each side; the width of the road is about 12 feet, it is rounded on top and made firm for traffic.

## STODDART'S ISLAND.

Inspected on 19th June, and 197 gallons of oil delivered. Nothing particular required at this Station.

#### PUBNICO.

Inspected on 7th March, and again on 9th July; sufficient oil on hand. The protection work at the beach has been done, and nothing more required at present at this Station.

#### ARGYLE.

Inspected on 8th March, and sufficient oil on hand. Some small repairs are required.

## FISH ISLAND.

Inspected on 8th March, and 145 gallons of oil delivered. Premises are in good order.

#### SEAL ISLAND LIGHT AND FOG-WHISTLE.

Inspected on 20th June, and 384 gallons of oil delivered. Lighthouse and

premises in good order.

On 17th June the "Newfield" landed 150 tons coal, there being on hand at that date about 36 tons from last supply. The floor of the whistle-house which was said to be decaying was examined and found sound. The frame is weak and the floor shakes. That part in which the engine and pump stands is shored up by wooden supports from bottom of tank; the tank underlies about one half the building.

The boiler which was repaired last season is in good enough condition to run through the winter but another should be in readiness to replace it by the 1st of June, 1879. When the boiler is removed the floor should be taken up, thoroughly examined, strengthened, and made firm, the tank examined, and a proper foundation for boiler

and engine built up from hard bottom.

The brick work of chimney has been taken down to roof, and is properly lead flushed and rebuilt for a distance of 2 feet in cement. A new blacksmith's shop has been built, costing \$60, 14 x 21 feet and 8 feet post. A saddle back has been placed on whistle-house and the smoke pipe lengthened 10 feet.

The roof of whistle-house has been painted with iron clad paint and sides of dwelling and engine-house with usual colors. Arrangements have also been made for the construction of a tramway from the landing to a safe place on the bank, which will greatly facilitate the landing of coal.

#### YARMOUTH LIGHT AND FOG-WHISTLE.

Extensive repairs and improvements have been made at this Station during the year. A brick eistern has been built in the cellar of the dwelling-house, capable of holding about 1,160 gallons of water. Also a shed 82 feet long by 10 feet wide and 9 feet post, for a covered way from dwelling to lighthouse, the roof to be used as a water shed and connected by spouting with the tank.

The damage to the roof of the whistle-house, caused by the storm of the winter of 1877, has been repaired, a partition has been placed in the house and the necessary water courses and spouting made to save the water from the roof of the buildings and conduct it into the tanks. The brick pier under end of boiler has been repaired and repainted. Messrs. Burrill & Johnson were authorized to make the following repairs to the fog-alarm:—

To remove 73 tubes from the boiler from time to time so as not to interfere with the sounding of the whistle, and replace them with iron tubes instead ofbrass; to put soft patches on the legs of the boiler, to put a piece of felt 9 feet square and the same quantity of canvas to cover the top of the whistle pipe, and to felt the boiler.

A new boiler will be required at this Station, and should be ready to be placed in

position on 1st June, 1880.

The water supply is very precarious, and has sometimes to be hauled at considerable expense. It is proposed next year to carry out the suggestions made in my last Report to insure a constant supply of water for the boiler. When the new boiler is placed a better foundation should be made and the tank made tight. A new boat has been supplied. Inspected several times. 150 tons of coal landed on the 20th June, and 399 gallons of oil delivered.

#### YARMOUTH BEACON.

Inspected on 21st June, and 196 gallons of oil supplied. The sheathing of the beacon which had been destroyed by worms has been repaired from the bottom upwards about seven feet. The worm-eaten part has been cut off at 8 and 12 feet from the bottom so as to break joints, and have been replaced with 2-inch hardwood sheathing and fastened with hackmatack treenails.

## CAPE ST. MARY'S.

Inspected on 22nd June, and supplied with 576 gallons of oil. The keeper has been authorized to build an oil store at this Station 14 x 18 feet.

#### METEGHAN.

Inspected on 22nd June, and supplied with 140 gallons of oil. The beacon was painted this summer.

#### CHURCH POINT.

Inspected on 22nd June, and 243 gallons of oil supplied. Mr. I. Hillaire Saulneir took charge of this light as keeper on the 16th August, 1878, in place of Mr. J. McLaughlin, resigned.

#### SISSIBOO.

Inspected on 21st June, and 144 gallons of oil supplied. The building was painted during the summer.

#### WESTPORT.

Inspected on 22nd July, and 150 gallons of oil supplied. The keeper has been authorized to supply himself with a boat.

## BRIER ISLAND LIGHT AND FOG-WHISTLE.

Inspected on 22nd June, and 598 gallons of oil delivered. The lighthouse was found in better order, and shewed evidence of greater attention than when visited last year. The seeming want of care, then noticed, was in a great measure due to the keeper's time being occupied in getting the water into the tank at the fog-whistle, and the confusion arising from this, and working through night during a long foggy season. The water had to be hauled at all hours during a long period. An excavation capable of holding 16,000 gallons has been made to receive the water from the drain which was made last year. This and the brick reservoir contained, on 2nd July, 30,300 gallons of water, which has proved sufficient for the dry season, and the necessity of hauling water, at a considerable annual expense, has been avoided.

The keeper has been supplied with spare boiler tubes, pipe joints, stay bolts, tap bitts, boiler plate, &c., with which he will be able to make temporary repairs when required. A coal shed has been authorized, and will be built at this Station, and 150

tons of coal delivered.

#### BOAR'S HEAD.

Inspected on 4th July, and 393 gallons of oil delivered. Next season the foundation will require pointing, the foundation of porch rebuilding, and the roof of oil store reshingled. The building was painted in fall of 1877.

#### DIGBY LIGHT AND FOG-WHISTLE.

Inspected on 5th July, and 453 gallons of oil supplied.

The light, tower and premises are in good order. The water supply for the fogwhistle ran very short, so that but one day's supply was on hand on 6th July. Improved arrangements are necessary. The present tank at the side of the hill is not large enough and does not hold water. A dam may be made on the side of the hill above to bring the small streams running down the hill to a point where they may be collected, and let through a pipe to the reservoir below. A reservoir of greater capacity is also required. A coal shed capable of holding 100 tons of coal is also necessary. 150 tons of coal were delivered on the The Superintendent suggests that a crane should be built in the cliff to the northward of the whistle, which could be worked by a horse to hoist coal and stores, or by steam by placing a winch barrel and gear in the whistle-house, and leading the purchase to it a distance of 200 feet.

#### PORT WILLIAMS.

Inspected on 9th July, and 101 gallons of oil delivered. Premises in good order.

#### MARGARETVILLE.

Inspected on 9th July, and 97 gallons of oil delivered. An iron shelf has been supplied to take the place of a rough wooden one, and give more room in the lantern. Also a zinc protection to lamps. A new revolving ventilator cowl has been furnished. An additional lamp has been placed in the lantern. The underpinning has been rebuilt in mortar. The keeper was authorized to have a paint locker and a coal bin built. The lamps now in use are too high for the low ceiling, and will be replaced by lower ones.

## BLACK ROCK.

Inspected on 10th July, and 152 gallons of oil supplied. The keeper was authorized to build a small oil store 16 x 12 feet, and 7 feet post. The oil has heretofore been kept in the barn with cattle and hay.

# PARRSBORO'.

Inspected on 17th July, and 246 gallons of oil supplied. The oil store adjoins the dwelling and the barn the oil store; all the buildings are thus en bloc. The barn and oil store are poorly constructed, and in bad repair; the expense of putting them in order would be almost equal to building them new. The oil store should be separated from the house and barn.

A water tank is much needed here, and a boat is also needed, as the keeper has to boat wood and supplies and the present boat is old. The lighthouse was painted during the year.

#### HORTON BLUFF.

Inspected on July 17th, and 100 gallons of oil delivered. This Station is in good order. All the lamps have been renewed.

#### WALTON.

Inspected on July 18th, and 201 gallons of oil delivered. The iron floor has been lifted and cemented beneath, and lightroom ceiling repainted; also a store locker built.

# BURNT COAT.

Inspected on July 18th, and 247 gallons of oil delivered. The store and buildings require more attention. The lamps were clean.

Some repairs were made to corners of foundation of house, glazing &c. The

keeper is to put lantern in better order for next season.

Water cannot be obtained from a well at this Station, and should a resident keeper be appointed a cistern will be required with spouting.

# APPLE RIVER.

Inspected on July 19th, and 150 gallons oil of delivered. Lamps and buildings in good order. Southern side of tower has been stripped of wood sheathing and covered with tarred paper and canvas and a few other minor repairs made.

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#### SPENCER'S POINT

Not reached by steamer. Stores supplied by rail and express. In good order. Furnished with new ladders, &c.

#### CAPE D'OR FOG ALARM

Was inspected on 3rd May and during the 12th and 16th July, when 150 tons of coal were landed on the beach at Horse Shoe Cove, also 48 gallons of oil. During a storm in the autumn of 1877 the keeper's boat was destroyed and the tramway used for hauling up the coals which was brought from the Cove in a scow, was nearly entirely swept away. It then became necessary to provide means of getting the coal to the whistle, other than those formerly used.

A part of road from the Station to Horse Shoe Cove has been built, extending from whistle-house by the side of the cliff to the level of the high ground at the Cape. The coals will be hauled during the winter from Horse Shoe Cove. A shed has been erected at the Cove, with an inclined roadway from the level of the beach from either side. The water tanks have been connected with pipes. A small building for forge at Station and outer doors to whistle house have been built.

The Superintendent recommends the road from Station to Horse Shoe Cove be

completed next season, say July and August when the weather is dry.

A new crank shaft and driving wheel have been supplied to replace those broken;

other minor repairs have been made by Engineer.

The whole establishment is in good order. A plentiful supply of water is provided and the whistle is most effective.

#### BARRINGTON LIGHT-VESSEL

Was inspected on the 18th June, and 95 gallons of oil delivered. The keeper having represented that the oil did not suit the lamps used in the small dioptric light which is shewn from this vessel, was subsequently supplied with 100 gallons of safety oil.

#### ISLE AU HAUT LIGHTHOUSE.

The light at this Station is not yet put in operation, the buildings not being completed. They are however sufficiently advanced to have the light exhibited whenever it may be considered well to do so. The interval of revolution has been altered from that originally contemplated. It will be a revolving white light, shewing its greatest brilliancy once every thirty seconds. The light will be 375 feet above high water; and the heighth of the tower is 56 feet from base to vane.

The contract for the building was \$3,700 and Capt. Nelson Card was appointed

keeper at \$500 per annum. He took charge on 20th November, 1877.

The keeper has constructed a road from the beach to the lighthouse about one mile in length, on a grade which will permit of stores, &c. being hauled to the Station. An oil store 16 x 12 feet is being constructed. 791 gallons of oil were delivered on the 11th July. The Island is covered with birch and fir—the timber being of little or no value except for firewood. The light is visible all around the horizon. There is about one and a half acres of cleared land round the lighthouse on which the keeper has planted crops,—and a considerable quantity of land at the west end can be made available for the same purpose. The keeper was furnished with a centre-board boat, 17½ feet keel.

The light will probably be exhibited on 1st January, 1879.

## GEORGE'S ISLAND.

Inspected several times during the year, and 244 gallons of oil supplied. Some repairs have been dene at this Station, which is now in good order.

#### MEAGHER'S BEACH.

Inspected several times during the year, and supplied with 481 gallons of oil. The protection work of piles with stone filling has stood very well.

#### DEVIL'S ISLAND.

Inspected on 8th October, and supplied with 1,011 gallons of oil. A new lantern is much required in the old tower at this Station. It should be the same size as the one in the new tower, viz. 9½ feet in diameter, and should exhibit a light of equal power. At present numerous complaints are made that the new light, being visible at a much greater distance than the old one, is liable to be mistaken for Sambro. It is impossible with the present old and small lantern to show light of sufficient brilliancy.

#### EGG ISLAND.

Inspected at various times, and 539 gallons of oil supplied. A new lantern and lighting apparatus was placed at this Station. The old lantern  $7\frac{1}{2}$  feet in diameter was much too small for so important a coast light, and the lighting apparatus consisting of a lamp and 12-inch reflectors too feeble. The new lantern is of iron,  $10\frac{1}{2}$  feet in diameter, having 12 sides glazed with plate glass. The light is shown by means of six large Silber burner lamps with  $21 \times 13\frac{3}{4}$  inch reflectors and constant level reservoirs. They are arranged in two setts of three lamps each, one sett being supplied with ruby shades to show a red face.

The light is a revolving red and white, showing each face at its greatest brilliancy once in every minute. There are two spare reservoirs and six spare burners on hand. The light has been very much improved by the substitution of the

large lantern and lamps, and is said to be very brilliant.

Very considerable repairs were made at this Station. The old slip had keen nearly all swept away by a heavy gale. A new one was built of timber bolted to the rock and cross pieces bolted to the stringers. It is 163 feet long. The foundation of the dwelling-house was pointed with cement, and the building secured with stays. The tank which holds about 650 gallons of water was cemented and made tight, and the chimney pointed with cement. The windows were changed from the south side, where they were exposed to the strong gales from the south east, and placed on the north side. They are now tight, whereas before they were continually leaking. The old windows were covered in and shingled over.

A new and enlarged deck was built for the lantern and a new rail placed round

it. Strong double doors were made for the porch and the boat house repaired.

## FOPE'S HARBOUR.

Inspected on 15th September, and 758 gallons of oil delivered. The light at this Station was put in operation in September, 1877, and is well kept, the buildings clean and neat, and the lamps and lantern well attended to. Water beats in under the lantern in strong winds owing to the lead flushing not being carried up far enough. There are also some small leaks in the joints of the lantern. These the keeper will try to make tight. There is a leak about the lead flushing of chimney. Rain beats through south side of tower and the plaster is being loosened by wet. The foundation, especially on seaward side, requires pointing with cement.

#### BEAVER ISLAND.

Inspected on 14th September, and 960 gallons of oil delivered. The light is well attended and the lantern, lighting apparatus and revolving clock are in good order, except that the bolt of the pall had given out—a new one was made. The pall is not securely fastened by means of a  $\frac{1}{2}$ -inch screw-bolt—the bolt should go through the wheel and screw up with a nut.

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The lighthouse has been painted and outside weather sashes put on. A capstan and tackle for hauling boats has been supplied, also plank and boards for some repairs required to the steps and platform about the lighthouse door and barn. The keeper does the work.

#### LISCOMB.

Inspected on 14th September, and 483 gallons of oil supplied. The building and premises, lantern, lamps and revolving machinery are in good order. Part of the canvas covering of lantern deck which had been torn away has been renewed, materials having been sent for that purpose.

#### COUNTRY HARBOUR.

Inspected on 13th September, and 1,197 gallons of oil supplied. The light and buildings are well attended to. The lighting apparatus was found to be very leaky, especially about the couplings, the leakage from all sources amounting to about one gallon in 24 hours, the oil being turned off from the fountains during the day. The couplings were defective, one having a hole through the brass-casting. A temporary apparatus will be supplied, the original one having been brought here to be made good.

Water beats through the sides of the tower in storms, the plaster being injured by the wet, and the building rocks a good deal during high winds. Three sides of the foundation wall requires rebuilding—one side has been already built. The keeper reports that the boat belonging to the Station was destroyed by a gale—the one in

use at present is his own property. A suitable boat should be supplied.

# ISAAC'S HARBOUR,

Inspected on 13th September, and 480 gallons of oil supplied. The oil and stores had to be landed at the harbour as it was too rough to land them at the lighthouse. The keeper has been authorized to remove, by blasting, some large rocks that are obstructing the landing. A road from the landing to the oil store is required and should be made next June.

## TOR BAY.

Inspected on 12th September, and 768 gallons of oil delivered. The lighting apparatus was clean, except the lamps, which were leaky, and two spare ones which seemed to have been used for house purposes, and were not well cared for. The lantern was beginning to rust inside; the keeper was instructed to scrape off the rust and paint with red lead. A new set of hinges was provided for lantern door. The hinges on many of the lantern doors became stiff and worked hard after exposure to the weather. It seems they are made to fit rather tightly, and some have an iron pin rivetted in. It would perhaps be better if they were fitted with a little more play, and with a metal pin, so that it might be removed and cleaned occasionally. The doors of almost all the lanterns are warped and bent by pressure used in opening and shutting, because of the stiffness of the hinges, and water beats into the lantern in consequence. Glass has been furnished to replace four panes broken in lantern. Three oil tanks which were leaky, and the lamps mentioned above, were ordered to be repaired at For Bay.

There is no convenient landing at this Station; it is an exposed place, and the water in general very rough, there is therefore great difficulty in landing stores, and the keeper cannot keep his boat at the Station. A crane with hoisting gear and staying across the rocks at a steep rock just outside the lighthouse would be of great service. This work, with the assistance of the keeper, should not cost over \$60. It should be

done early next year.

#### WHITE HEAD.

Inspected on 12th September, and 380 gallons of oil supplied. The driving-wheel of the revolving apparatus was broken at the set screw. A new wheel has been

provided. Spare reflectors should be sent to this Station.

The keeper has been authorized to open and clear the drain which was stopped. He wishes to have one of the iron frames in the landward side of the lantern replaced with glass so as to light the roadway which is very dark and rough. This alteration has been authorized. An improvement has been made to the landing by the building of a new abutment, lengthening it about 50 feet. The store has been reshingled and the roof of the boat-house, which was damaged by a storm last winter, has been repaired and new doors made. The road requires renewing, ditching &c., in some places where it is boggy.

#### CRANBERRY ISLAND LIGHT AND FOG-WHISTLE.

Inspected on 11th September, and 1,200 gallons of oil delivered and 40 gallons for fog-whistle. The whistle was not in operation for a short time in consequence of repairs being necessary to the boiler. A new boiler should be supplied to this Station, the present one can then be removed and repaired thoroughly. The tanks will not hold water, and when the supply from small ponds is exhausted, salt water is used.

The light tower and buildings remain in same condition as reported last year. The extensive repairs necessary at this Station will be commenced in the spring of

1879. A boat is required.

#### CANSO HARBOR.

Inspected on 11th September, and 338 gallons of oil supplied. The tower at this Station leaks under the deck and the plaster is being injured. The chimney should be built three feet higher to make it draw properly.

An addition to the dwelling of 13 feet in length with a porch is much needed. At present a single door opens into the main living room and makes it very uncom-

fortable in stormy weather.

# GUYSBORO'.

Premises in good order. 204 gallons of oil delivered.

## CAPE LE BONDE,

Inspected on 9th August, and 475 gallons of oil delivered. A well has been dug 12 feet deep, walled round with stone and a covering box provided. The lighting apparatus will have to be brought to Halifax to be put in order.

The burners do not fit properly in the reflectors and the lamps are leaky. Proper

lamps will be substituted while these are being repaired.

#### OUETIQUE ISLAND.

Inspected on 9th August, and 143 gallons of oil delivered. The light house has been painted. There is a leak in the buildings where the roof of dwelling joins the tower. The keeper will try to stop it; lead flushing is required. The embankment, to protect the fresh water pond from the sea, has been completed; also the improvements to the road authorized last year.

## PETIT DE GRAT.

Inspected on 9th August, and 478 gallons of oil delivered. The keeper was instructed to paint and clean the lantern both inside and outside, which had been allowed to become rusty and dirty. A small shed destroyed by the wind last year

should be replaced, and the clay bank requires protection against washing away. The Superintendent recommends the building of a rough wall or pile of stones, the lower stones up to a height of not less than three feet, to be not less than 400 lbs. weight; the lower gravel and small stones, such as would be washed away from beneath or loosened by action of the sea, are to be cleared out from the beach, where the base of the pile is to rest. The wall to be 190 feet long, about the seaward side of the Island, extending from a point about 8 feet to eastward of oil store and lighthouse, to the further end of bank. To be not less than 4 feet wide at bottom and about 3 feet at top, slanted against the bank, not less than 5 feet, in perpendicular height. The wall to be topped with a timber crib work about  $2\frac{1}{2}$  feet high, of two tiers of horizontal logs, with cross binders about 8 feet apart, bolted or treenailed firmly together and ballasted with stone, the whole to be of an average height of 8 feet, built to conform to the height of bank, so as not to be more than  $2\frac{1}{2}$  feet from the turf edge of bank at any point. This will cost probably about \$250, and should be built not later than next summer.

#### ARICHAT.

Inspected on 9th August, and 150 gallons of oil supplied. The lighthouse has been painted and water conductor placed over caves. The repairs to foundation recommended in last years report will be done early next season.

#### CREIGHTON'S HEAD.

Inspected 9th August, and sufficient oil on hand. The building has been in a leaky state for some time, so that the keeper could not remain there at night without great discomfort. Shortly after it was completed it was blown down, and when re-erected the canvas covering of deck, lantern, &c., and the wood work around sashes and eaves, which were damaged, were used again and as the damaged material could not be fitted as neatly as was requisite to make tight work, there have been leaks. Repairs have been made as follows:—The lantern deck has been covered with new canvas and the eaves of tower repaired and made tight. The stay bolts lengthened, and put through the solid iron of plates (whereas before they were ragged bolts driven in the seams), and fastened with nuts on inside. The sides of lantern were reshingled and leaks stopped about sashes. The eaves of lantern were widened and made tight, roof recovered with canvas, and all new work repainted. The lathing and plastering injured was repaired.

## JERSEYMAN'S ISLAND.

Inspected on 9th August, and 234 gallons of oil supplied. The building stands in need of considerable repairs, and attempts have been made to render it tight by means of patching improving, corner coverings, window cases, &c., but have been unsuccessful. The following work has been authorized:—The sides of the tower and roof of dwelling to be stripped, the boarding to be put in order and recovered with tarred paper, and good pine shingles. The building should then be painted.

# S. Babin was appointed keeper on

## SAND POINT.

Inspected on 10th of August, and 234 gallons of oil delivered, The woodshed has been reshingled, and all the buildings are now in good order and have been painted.

# POINT TUPPER.

Inspected on 10th August, and 144 gallons of oil delivered. The iron lantern which was taken from Country Harbour as being too small will be placed at this Station instead of the present wooden window. This lantern has been put in good order, and when the transfer is made the building will receive some repairs necessary to make it tight. The cost will be about \$250.

#### NORTH CANSO.

Inspected on 10th of August, and 337 gallons of oil supplied. Repairs have been made to foundation, and to the eaves of three sides of the house. Four new window sashes have been supplied. The east end of the house requires leading under the moulding of the eaves, for which material has been sent.

#### POMQUET ISLAND.

Inspected on 10th of August, and 95 gallons of oil supplied. Buildings in good order. Keeper was authorized to make proper stands for oil tanks, and to put in shelving and paint locker in oil store.

# CAPE ST. GEORGE.

Inspected on 10th August, and 290 gallons of oil delivered. The following has been authorized at this Station:—An oil store to be built, and a small building over the walled enclosure which was built outside for a cellar. Lumber and nails have been ordered for a new kitchen floor. The cost of these improvements will be about \$225. The premises have been painted this autumn.

#### PICTOU ISLAND.

Inspected on 12th August, and 428 gallons of oil delivered. Buildings have been painted. A new floor has been put in cellar and in the porch. The oil store has been raised to clear the sills from the ground, and underpinned, and some minor repairs made. Two rooms in the dwelling-house have been papered.

#### PICTOU HARBOR.

Inspected on 12th August, and 381 gallons of oil supplied. Light tower and buildings have been painted. A water tank is much required at this Station, and spouting round house wants repairing. A wooden or iron tank 8 x 5 x 5 should be supplied. There is no foundation for brick.

#### CARRIBOO.

Inspected on 12th August, and 371 gallons of oil supplied. The buildings are in good condition. The timber crib and ballast protection to bank made last year, 60 feet long x 8 feet wide x 7 feet high, is a good substantial job. An additional 60 feet has been built this autumn.

#### AMET ISLAND.

Inspected on 12th August, and 287 gallons of oil delivered. The buildings are in good condition and have been painted during the season. The chimney requires pointing, and the lantern deck, which is covered with metal, is leaking. The metal should be removed next season and the deck covered with canvas. There are upon the Island a rough barn and a building put up for lodging contractor's men when building breakwater, also a temporary roof used as a cover for cement.

The barn and other frame buildings might be put in order and whitewashed and

the other one be removed.

The breakwater round the Island should be attended to early next year, as for a considerable length the beach gravel has washed out from under the masonry.

# MULLIN'S POINT.

Inspected on 12th August and 194 gallons of oil delivered. The upper range light is in the dwelling of keeper. He was authorized to build a partition to separate light from rest of house. The roof requires ventilation and a metal protection.

#### PUGWASH.

Inspected on 12th August and gallons of oil supplied. A stone protection has been built round the bank about 350 feet long by  $3\frac{1}{2}$  feet high to protect the tank from ice and wash of the sea. A new and larger lantern is required at this Station. The top of present tower is 8 feet square, and will answer for a new lantern  $7\frac{1}{2}$  feet in diameter.

When a new lantern is erected the roof of dwelling and sheathing of tower will

have to be repaired.

The keeper, Mr. Rufus J. Bent, died in October, and Mr. Angus Beaton was appointed keeper at a salary of \$300 per annum.

#### GREEN ISLAND.

Inspected on 30th September, and 726 gallons of oil supplied.

Repairs to lantern sill and deck have been completed. The lighting apparatus which was removed for repairs last season having been put in good order, has been replaced.

Paint has been supplied for painting the buildings, and damage to landing will

require repairs next season.

This is an excellent light, appears large and brilliant when first seen above the horizon at a distance of 12 miles in clear weather. In hazy or wet weather the red flash is not so bright as the white, and its range of visibility about one mile less.

#### PORT HOOD.

Inspected on 3rd October, and 247 gallons of oil delivered.

The porch has been re-shingled, and a metal inner roof to protect lamps from drip supplied. The buildings were painted in 1877, and fare in good order, and the light well attended.

The uncertain supply of water is a great discomfort to the keeper's family, and a water cistérn is much required; a well is out of the question, the substratum being coal. An oil store is also required, the oil at present being stored in the cellar of the lighthouse.

#### MARGAREE.

Inspected on 3rd October, and 144 gallons of oil delivered.

The roof of lighthouse leaks, the plaster is much damaged throughout from water, and has fallen in many places. The chimney requires to be taken down to roof, properly lead flushed, and rebuilt a height of 4½ feet. Cellar kitchen requires plastering. The roof should be stripped, covered with tarred paper or birch bark, and re-shingled with good pine shingles. Almost all the rooms require replastering. These repairs have been authorized for some time. A vessel by which material was shipped was cast away at Cheticamp. Shingles for repairs to oil store have been supplied.

The keeper of this Station, Mr. John McFarlane, has been rendered a cripple (from which he has suffered for the last two years) by an illness contracted through exposure and over exertion in most gallantly rescuing a man from death on the drift ice some time during the winter of 1876-7. As far as I have learned his bravery

has never been acknowledged.

## CHETICAMP.

Inspected on 4th October, and 427 gallons of oil delivered.

The south side of dwelling has been shingled and a fence made around the lighthouse. The cowl of lantern and some lamps have been repaired. A new regulator screw is being purchased for the revolving clock, and a metal floor for lantern.

The lighting apparatus is well attended to, and with the exception of damage caused by leakage of roof, the Station generally is in good order.

## ST. PAUL'S FOG-ALARM.

Inspected October 5th, and supplied with 46 tons of coal and 48 gallons of oil and usual stores.

The boiler gave out in July, and was replaced by the spare one. Some alteration was made in the roof of the whistle-house where steam dome passed through, and repairs to piston, gland, stuffing box and governor. A new piston has been provided and will be sent by the first opportunity. The boiler now in use leaks in the leg below the front of the furnace. A new and larger one is required. Buildings require painting and part of the foundation of the whistle-house on the seaward side will require rebuilding.

A water cistern is required at dwelling-house. In winter time and in the dry

season water has to be carried a long distance.

# ST. PAUL'S WEST END LIGHT.

Inspected October 5th, and supplied with 240 gallons of oil. Lighting apparatus in good order and well attended. A number of reflecting mirrors are required for the upper and lower parts of the apparatus. Some of the panes of lantern glass are broken and should be replaced next season.

Repairs were made to dwelling last season and buildings painted, and the Station

is now in good order.

## ST. PAUL'S NORTH EAST LIGHT.

Inspected on 5th October, and 384 gallons of oil delivered. The light is well attended and in good order. A number of reflecting mirrors are required for the apparatus. The dwelling should be painted next season. A burner having four or more concentric wicks would improve the light.

## CAPE NORTH.

Inspected on 8th October, and supplied with 336 gallons of oil. The Station is much exposed. Far removed from the nearest settlement and completely isolated by ice and know during the greater part of the year.

The keeper is desirous of having enough land enclosed to enable him to keep a

cow, also to have a small barn built.

An improvement to the landing by removing some of the largest rocks which obstruct it is much needed.

## ST. ANN'S.

Inspected on 9th October, and supplied with 146 gallons of oil.

Some repairs have been made to doors and windows to keep out the weather, and the keeper has been instructed to keep the light in operation at all times when a vessel can enter the bay.

#### BIRD ROCK.

Inspected on 9th October, and 187 gallons of oil delivered.

The repairs to sills of lanterns reported as required last year, will be made next season. The lighthouse and dwelling were painted in 1877. This is an important coast light, and is kept in operation all winter. The lamps have been in use a long time and are much worn; a new lighting apparatus is also required. The lantern now in use is not sufficiently ventilated to allow of larger burners being used.

The frame of tower is sound, of octagen shape, 13ft. 2in. diameter at the plate.

A breakwater which filled a gap between two rocks so as to shelter the landing, was carried away by the sea last season. It should be rebuilt as it affords a shelter and enables a large number of fishermen to follow their avocation.

The light is well attended and shews well.

## BLACK ROCK POINT.

Inspected on 9th October, and supplied with 149 gallons of oil.

The light is well attended and Station in good order. The lighthouse, from its situation, shape and color, is not easily distinguishable as a day mark. It has been thought advisable to paint it white and red. It is a square one-story building with hipped roof, the lantern being a three sided window on seaward side of roof. When painted the building will show as a white T or cross on a red ground.

The roadway has been extended further on to the beach to give it an easier ascent, and the lower part protected from the sea by a substantial lumber abutment

ballasted.

The oil and larger stores are kept in a barn, full of straw above and half full of hay on same floor with stores. There is also a lean-to adjoining where cattle are kept. An oil store should be built.

#### CAPE GEORGE.

Inspected on 11th October, and supplied with 48 gallons of oil.

The oil fountains of lamps are leaky and there are no spare lamps. A temporary lighting apparatus will be ready for next season. The lamps now in use removed and put in order.

Part of the wood that obscures the light in the direction of St. Peter's Canal

should be cut down.

A building to serve as boathouse and oil store is required, say 21 feet by 13 feet, and 7 feet post. The keeper wishes to have a small lot of land fenced, about half an acre in extent, surrounding the lighthouse, and have a well on it.

## GRAND NARROWS.

Inspected on 11th October, and supplied with 50 gallons of oil.

Four broken panes of glass in the lantern have been replaced by new ones, and a new set of lamps for next season; also a metal protection to the wooden roof of lantern.

# KIDSTON'S ISLAND.

Inspected on 10th October, and 337 gallons of oil delivered. The lamp shelf has been raised 6 inches to bring the burners into the centre of the lantern glass.

The lantern, &c., was not in very good condition, it appears to be too small to admit of attending the lamps to best advantage, as in this case lamps to show light at all points are placed at opposite sides of the lantern. The oil store recommended last year has not yet been built.

#### MCKENZIE'S POINT.

Inspected on 10th October, and 144 gallons of oil delivered. The light is well attended. Some defective lamps have been replaced by others. The upper part of the tower is in a leaky condition. Repairs will be made next season. A water cistern is required, as water has to be brought a distance of 12 miles in dry seasons from Boulardarie. An oil store and repairs to chimney are needed, and a new boat has been supplied.

#### POINT ACONI.

Inspected on 11th October, and supplied with 196 gallons of oil. The light is well

attended, and buildings and stores kept in good order.

Repairs were made to glazing of lantern. The lantern deck has been recovered with canvas and lead flushing, painted and made tight, and a coal locker built, and the foundation repointed. The building was painted in April, 1878.

#### LOW POINT.

Inspected on 11th October and 473 gallons of oil delivered The light is well attended.

Extensive repairs were made during the early part of this and the latter part of last season. The light from the new lantern was first shown on 13th July, and is of superior brilliancy to that formerly exhibited.

The buildings have been painted and the station is now in first rate order. The old lantern, lighting apparatus, &c., were shipped to Halifax per steamship "Newfield."

#### SYDNEY HARBOUR.

Inspected on 14th October, and 388 gallons of oil delivered.

The circular burner, which was placed in the lantern last fall, took fire and was destroyed with the 20-inch reflector in which it was fitted. The keeper states that the wick tabe was of uneven thickness, and that the flame communicates with the oil inside the tube where the wick was slack,—a 20-inch reflector with mammoth flatwick burner will replace the one destroyed.

The wooden base of lantern and upper part of tower, are leaky and are being

repaired.

#### LINGAN.

Inspected on 15th October, and 189 gallons of oil delivered. The light is wel attended and the buildings and stores in good order.

The lighthouse was painted this season.

# FLINT ISLAND.

Inspected on 15th October, and 287 gallons of oil delivered.

A good light is shewn from this Station, but the lighting apparatus and clock which have been a long time in use are getting much worn. A new lighting apparatus will be required. The sliding slip, for hauling boats to the top of cliff out of reach of the sea, has been much damaged during the past season, the lower part should be renewed. Purchase blocks and gear for hauling boats should also be provided. Repairs are needed to the foundation of lighthouse and a building is required for oil store and coal shed.

The excavation for cellar under the dwelling is but 12 feet square; a larger excavation should be made and a water cistern built. Water has to be carried from

mainland in dry seasons a distance of 3 miles.

#### SCATTARIE.

Inspected on 16th October, and supplied with 342 gallons of oil. The light is well attended.

The arrangement of reflectors does not exhibit a light as advertised. At a distance of 7 miles the light is visible for 30 seconds, and eclipsed for one minute; as the distance of the observer from the light increases, the interval of darkness is lengthened and the time of light is shortened, and vice versa as the observer nears the light. The light is not of equal brilliancy while visible but increases and diminishes. It is a revolving light attaining the greatest brilliancy at intervals of 1½ minute, the relative periods of light and darkness being governed by the distance from whence observed.

The foundation of lighthouse needs repairs, the mortar has crumbled away. The loose ballast inside the tower was moved in 1876, and the woodwork was found to be sound. Repairs have been made to shingling of kitchen roof, porches and door fastenings. The lighthouse has had two coats of paint and lantern three. The porches storehouse and sailor's accommodation were also painted. The lighthouse will require another coat next season to make it white, it having been blackened by the weather in consequence of its not having been painted for a number of years.

A well stocked medicine chest with good directions is a necessity at this Station, the present stock of medicines appears to be an accumulation from different wrecks,

and is in such utter confusion as to be useless.

The signal gun at this Station is honeycombed so as to be unfit for use, and the wooden carriage is altogether rotten. Pending the establishment of a steam fogalarm a serviceable gun and mounting with ammunition should be provided.

#### MAIN A DIEU.

Inspected on 16th October, and supplied with 292 gallons of oil.

A new lantern has been landed and carefully stored at this Station and a sett of new lamps will be provided from store. The work of erecting it should be commenced early next season. A new deck frame, &c., will be required and paint has been supplied to paint the buildings when the lantern is finished. The road has been improved. The light shown heretofore has been very inferior.

#### LOUISBURG.

Inspected on 17th October. A new lantern has been landed and carefully stored at this Station and a new lighting apparatus will be supplied from store. The lantern

should be erected next season as early as the weather will permit.

The upper part of building should be put in good order, two sides of roof reshingled, and the metal covering removed from lantern deck and a covering of painted canvas substituted. The metal covering being leaky, outside windows are wanted. There is but a small place for cellar under the building, no excavation was made when the house was built. The oil is stored here, not leaving sufficient room for coals, vegetables &c. An oil store and set of tanks will be required; an outside cellar door and a small out building for closet. 576 gallons of oil were supplied.

An improvement to the landing is necessary; some rock should be removed by blasting and a slipway built. The barn requires new boarding and shingling. The condition of things is unsatisfactory, arising mainly from the dilapitated state of

lantern and from want of proper store room for oil and the larger stores.

#### GUYON ISLAND.

Inspected on 22nd October, and supplied with 582 gallons of oil. The light is carefully attended; the stores and buildings in good order. Some of the lamp fountains are leaky and they will be put in order during the season. The chimneys supplied are not of uniform size. The reflectors re fitted rather tightly, each to a different chimney. This gives the keeper some trouble, but by careful selection he can manage to use all the chimneys supplied. The cellar drain requires deepening; as it is at present the water flows into the cellar instead of out of it, and the water in cellar freezes in winter.

#### SABLE ISLAND, EAST-END.

Inspected on 25th September and 28th October, and supplied with 670 gallons Astral oil.

The lighting apparatus, lantern, interior of building, stores &c., evidence excellent

attention and are very creditable to the keeper.

The beauty of the lamps has been somewhat marred by the manner in which repairs have been executed, and the head of the three wick lamp has been placed so

that the wick tubes and chimney do not stand in line with the other parts of lamp. The wick tubes are burning thin at edges and becoming of uneven breadth, this makes the flame uneven. The edges of tubes are not protected by annular copper tips which could be renewed as at Sambro, they will soon require to be fitted with rings or cut down even.

Paints, oil, &c., were supplied for painting the lighthouse, together with the usual

stores and lumber and other material for repair to buildings at the Station.

The keeper has one assistant. In addition to lighthouse duty they patrol each foggy day 9 miles to end of dry bar, going up one shore and returning by the other,

18 miles altogether.

The three-wick burner lamp consumes at the rate of 635 gallons of oil per annum, and the four-wick burner, 1000 gallons. The four-wick burner is used, except at times when the pump packing requires renewing; the three-wick burner is then substituted. On 28th October, copper stove pipes and about two tons of coal were landed for this Station.

The canvas covering of deck of lantern is rotten, broken all over and leaks badly. The railing will have to be raised to recoverit. The canvas has probably been mil-

dewed before it was put on.

It would be well in spring, when painters are sent to the Island, to send a carpenter also to work at both painting and such carpenter's jobs as may be required.

The buildings are kept moist by the warm vapour from the sand in hot weather;

green mould is formed in the northern parts of the tower.

The white stripes are much discolored by rust of stove pipes and iron work as well as the mould, and as the stripes are probably not discernable by ships at any safe distance from the lighthouse, and there will always be a difficulty in keeping them white, it would be as well to keep the tower all brown.

# SABLE ISLAND, WEST END.

Inspected on 25th September, and 1,536 gallons of oil landed. The lighting

apparatus has been well attended, the top of lantern outside requires painting.

The light is a bright revolving light, makes a full revolution every 2 minutes, shewing three bright flashes each increasing and diminishing in 20 seconds, has a dark interval of one minute duration. Mr. Morrison, who had been in charge of the light since its establishment, was brought off with his family. The machinery of the fog-alarm with the exception of the boiler, was also brought away; the weather being too unfavorable for its removal, it was allowed to remain until a better opportunity offered. Two of the Island staff were put in temporarry charge of the light under the supervision of the Superintendent.

Paints, oil and brushes were supplied for painting the lighthouse, which is much in need of it. The covering of buttresses is being blackened either by sap in the wood or mildew from want of ventilation between the cement of buttresses and the

wood covering.

The cement plain surface about the base of the building is worn into holes in many places and requires renewing. The chimney of dwelling requires pointing.

The men at this Station patrol each foggy day one mile east of lighthouse and

three miles west to the dry bar and return.

The boarding is gone from the sand fence surrounding the lighthouse lot, this should be renewed as the drifting of sand in high winds may cause much damage.

The Island was again visited October 28th. Landing could only be effected at the east end. Mr. Walter Henderson was landed to take charge of the West-end Light Station, accompanied by his wife and an assistant.

Copper pipes for the stoves and some coals were landed here to be conveyed to

west end, first opportunity either by boat or by land.

# NEW LIGHTS IN COURSE OF CONSTRUCTION OR PROPOSED TO BE ERECTED.

SHEET ROCK, ENTRANCE TO SHEET HARBOR, HALIFAX COUNTY.

A lighthouse is now being built at this place. It is intended to shew a revolving red light visible all round the horizon. Full particulars will be supplied in next year's report.

#### PICTOU CUSTOM HOUSE.

A range light has been placed during last summer in the tower of the new Custom House, just above the railway station, in the Town of Pictou. It is a fixed white. The light is shewn by means of three argand gas-burners, each having 25 jets—two furnished with 15-inch reflectors, shews seaward, and one with a 12-inch reflector, shews across the harbor to southward.

The light bears W. ½ N. from the harbor light, distant two miles, and is elevated 60 feet above high water, and has been seen 7 miles outside the bar in clear weather. In range with harbor light, bearing west, leads in the channel up to the bar.

The light is under charge of the keeper of the Custom House building.

#### KINGSPORT PIER.

Lat. 45° 9' 30" N.; Long. 65° 35' 00" W.

Small beacon light on end of pier. The frame of the beacon is 30 feet post, 7 feet square at bottom and 5 feet at top. Platform 6 feet 9 inches square, covered with canvas and fitted with a wooden railing. The lantern is of wood 4 feet square, fitted with revolving ventilator cowl, baving a metal-lined floor, and lamp shelves lined with zinc.

The posts are fastened with knees to wood work of pier, the upper half of frame is boarded in, sheathed and floored, having a trap door, the lower half is open. The lantern is reached by a step-ladder inside the frame work, and the inclosed portion is painted white, the lower part brown.

The depth of water at head of pier at half tide is 10 feet and the beacon is 26 feet

from base of frame at top of pier to vane.

The light is fixed white, shewn by means of one circular-burner lamp, with 20-inch reflectors and one A-burner lamp, with 12-inch reflector. It should be visible for about 9 miles, from N.E. by E., round to west, and is not visible northwardly of N.E. by E.

Half-tide rock, which lies with beacon, bearing miles distant, is bare at half tide. Mr. Thomas J. Phipps, living at head of pier, was placed in temporary

charge until a keeper is appointed.

# PEASE'S ISLAND.

Tenders have been asked for the erection of a lighthouse on Pease's Island, Yarmouth County. It is proposed to erect it on the south-east point of the Island, about 25 feet distant from the edge of the bank. This part of the Island is about 18 feet above high water. The ground is level and the soil about 4 feet deep on top of granite boulders. The best landing is at the north side, but boats can land at any point in ordinary weather.

It is proposed to make the light a red and white revolving, showing the brilliancy of each at an interval of 30 seconds. It should be visible ten miles from the deck of a vessel 10 feet above water outside of Gannet Ledge. The ledge will lie W. by

S., southerly from the light.

The lower light to be a fixed white or red, to shew between the bearings of E. by S. ½ S. and S.E. by S., or between the Old Woman and Old Man, Rocks, the channel between which this light is intended to mark, and should not be visible in any other direction. It should be seen 4 miles.

The revolving light will be obscured between the bearings of north-west and north from the light by higher land.

The seaward side of tower should face S.E., and the dwelling should be at the

N.W. side.

#### WEDGE ISLAND.

Tenders have been asked for the erection of a lighthouse on Wedge Island, off the entrance to St. Mary's River, Guysboro County. A beacon was placed on this Island many years since, but it was destroyed and the Department decided to replace it with a light.

It is proposed to place the building on a prominent part of the Island, and to shew the light all round the horizon; the principle door to face the South or East, as may be deemed desirable. The Island is about 1½ mile from the main land; the soil

of clay, and about half an acre of grass.

#### THREE TOP ISLAND.

Tenders have been asked for the building of a lighthouse on Three Top Island,

at the entrance of White Haven, Guysboro' County.

It is proposed to place the light on the south-east end of the Island, on the most favorable position for showing the light towards the western, southern and eastern passages.

# RANGE LIGHTS, HARBOUR AU BOUCHE.

Tenders have been asked for the building of two square wooden towers to indicate the channel at the entrance of Harbour uu Bouche, in the County of Antigonish. The towers are to be built on the side of the harbor opposite the entrance; the front one as near the beach as possible, the back one about 50 yards from it, to range with the channel over the bar.

## LITTLE GLACE BAY, CAPE BRETON.

While in this neighbourhood the Superintendant of Lights was requested to examine into the matter of a light proposed at this place, and his report is as follows:—

The bay itself is not a harbour or roadstead except with off-shore winds. There are two artificial harbours, one the Little Glace Bay Coal Co's., the other the Caledonia

Coal Co's

Owing to the depression in the coal trade neither of these harbours are frequented by as large a number of vessels as formerly. Little Glace Bay Harbour on the western side of the bay is easiest of access, not being so much embayed as the Caledonia Co's. Harbour. The channels both have been dredged to a depth of about 17 feet. Little Glace Bay is frequently resorted to by the fishermen of the coast.

Lights on the piers would be of great assistance to vessels engaged in the coal trade and fisheries. Small craft wishing to anchor on dark nights often have to come too outside the bar, and send a man on shore with with a lantern to mark the

end of the pier and enable them to keep in the channel.

There are two piers forming the harbour at Little Glace Bay running out from the shore in a north-easterly direction, converging towards the end. The entrance between the piers is about 150 feet wide. The southern pier extends out about 20 feet further than the other, and is 48 feet wide at the end, and the northern pier is 24 feet wide at end. They are both built of timber, ballasted in cribs of 24 feet across, and about 8 feet apart. The 17 foot channel dredged through the bar, extends out about 150 yards in a north-easterly direction, and further out widens and deepens into the bay. It is about 200 feet wide where it crosses the bar, and is so difficult to hit on a dark night, without a guiding light, that vessels do not attempt it except in fine weather and by day.

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Range lights may be placed on the south pier to guide in the channel. I would recommend a small building, say  $16 \times 12$  feet sills, 10 feet posts, with an upper floor 8 teet above the lower one, pitch roof, the gable end to stand at right angles to the direction of the channel—placed as far in as possible from the pier end, say about 150 feet, the light to be shewn from the upper floor, through glass three feet square, to range with a pole light on the end of the pier.

The pole light may be a steamship's dioptric mast-head light rigged in a similar fashion and illuminating an arc 225°, so fixed as to show from two points to eastward of line of channel round by north and west and light up the pier heads and harbour.

The pole light should stand about 20 feet above the top of the pier.

The lights may be white, as house lights on the shore are far removed, and vessels do not ride at anchor in the bay. Also Lingan Light, the next bay to westward, is red.

No heavy sea breaks at the pier heads as there is a bar 200 yards outside; the

bay is shoal.

In the Company's charge the light might be maintained at a small charge. The

pier itself is a sufficient day mark.

The cost, including illuminating apparatus (which can be supplied from store Halifax) will not probably exceed \$450.

# BEACON LIGHT, COW BAY BREAKWATER.

Respecting this proposed light the Inspector reports:—

I think the establishment of such a light would be of assistance to navigation and comperce.

The bay is clear of dangers with the exception of a shoal off the Eastern Cape close in, and good shelter is afforded by the breakwater which is over 1,200 feet in length. Vessels may round the end of the breakwater from any point of

approach and anchor under its lee or hang to it by a hawser during gales.

The accompanying sketch of head of breakwater and proposed light will explain: Tower 16 feet square at base, 22 feet post. Lower room 9 feet clear in height; upper room  $4\frac{1}{2}$  feet clear. Middle room furnished for living room, upper for clock and small stores; one side of the building to face south-east. Door to be in northwest side. Tower room fitted with bench for oil tanks. Paint locker, with doors in one corner—coal locker in another.

Foundation of square timber dovetailed and bolted, and ballasted about 3½ feet in height, or one foot above level of covered part of pier at western corner of building.

The most suitable position will be 24 feet north of head of pier and about 22 feet from west side, at a place being filled with ballast and not yet covered up.

The foundation at its eastern angle can be let in to the timber of the higher part

of pier at that part.

Lantern, 7 feet diameter; glass not less than 60 inches high. Light, red fixed, with white flashing light, and to show fixed white up the bay, in the harbour and along the harbour side of piers. The lighting apparatus may be arranged from lamps, &c., in store.

The frame of building will require to be well secured, especially at the eastern angle. The siding at N.E. and S.E. sides up to the height of 9 feet, had better be of sheathing metal or canvas, as it will be much washed by sea in fall and winter.

The sea does not break over pier from the eastward so heavily as formerly, owing to the accumulation of beach stones at that side, but still a great quantity of water is thrown over in heavy gales.

# POINT MICHAUD OR ST. ESPRIT.

Respecting a light on this part of the coast of Cape Breton, the Inspector reports.

What seems most wanted at present on this coast is a light, so situated that vessels approaching between the ranges of Green Island and Guyon Island Lights

may be warned and guided thereby. The Island St. Esprit more nearly divides the distance between the lights, and is the most prominent point available for a light.

There are no harbours except those used by boats and small craft between Gabarus and St. Peter's Bay. Fishing is carried on by a considerable number of people about Michaud, which is the most thickly settled locality west of Gabarus. A beacon light at Michaud would be of great assistance to fishermen, &c.

Vessels bound to eastward across St. Peter's channel, and from sea, bound into the Gut of Canso, frequently fall in too close, and some are lost there. As this occurs generally in thick weather with southerly winds, when a light could not be seen at a distance sufficient to admit of working off shore, I would suggest that an automatic buoy placed to southward of Cape Michaud, and far enough seaward to allow of its being heard to leeward in southerly winds, would be the best protection that could be provided for navigation at this part of the coast.

St. Esprit Island lies about 1½ mile from the main, and contains about 11 acres of land. Its greatest length lies east and west. The highest part is the north side of east end, about 170 feet west from high water mark at the north-east point. The height is 32 feet. The highest part of west end is 26 feet, and sea point 29 feet.

The dangerous rock, the "Bad Neighbour," lies S.W. 3 W. about 11 mile from

the Island.

Ledges of volcanic rock underlie the Island exposed at the shores, and the rock

is unfit for building purposes.

The soil to a depth of 20 feet at N.E. end is sandy loam mixed with small stones, with a topping of mould about one foot deep. Water might be obtained by means of a well, but as in storms a large quantity of salt spray is thrown up, the water will likely be brackish. I think a brick cistern to contain from 1,200 to 1,400 gallons of water would be required.

The light tower should be 40 feet post, with foundation about three feet above ground where ground is highest. Seaward side of tower to face S.E., and dwelling of about two sides of tower to be at N.W. and N.E. sides. The light to be a quick-flashing white light, each about 5 seconds, and should not be visible between flashes, so as to distingush it as distinctly as possible from White Head Light, which is visible between the flashes up to a distance of 10 miles.

The lantern should be 9 feet in diameter, and the light visible over 20 miles. The building should stand about 40 feet from the edge of the bank at N.E. part of the

Island, and about 170 feet west from high water mark at the eastern end.

The buildings required will be: light tower, dwelling, wood-shed and oil-store 21 x 13 feet. A boat-house and skid-landing will also be required.

# HUMANE ESTABLISHMENTS.

## ST. PAUL'S ISLAND.

The provisions, clothing, boats, oars, and other supplies pertaining to this establishment were invested and found in order

ment were inspected and found in order.

The landing should be built in a substantial manner. The lower part has been destroyed by storms, and an expenditure of about \$300 will be required for this purpose.

There are no roads or pathways whereby wrecked materials or injured people may be conveyed from other points to the Station. Provision should be made for road making, so that in course of time a passable way may be established round the Island. The staff is not enough to carry on improvements. Three setts of rocket apparatus should be provided for use at the Stations; the rocky shores of the Island are nearly perpendicular at all points, and shipwrecks are generally quite close to the cliffs. In such instances the rocket life saving apparatus is more useful than boats.

One of the horses sent last year, a fine mare, was lost this summer by being drowned in a small fresh-water lake. Her place was supplied by a horse taken by the Newfield from Sable Island, and landed at St. Paul's this autumn. Two horses are required for hoisting the coal in order to give due despatch to the ship.

The Superintendent reports the hay and clover seed, which he had sowed in various places some few years since, never came to anything; seed has again been sent for another trial to ascertain whether anything but the wild grass natural to the soil will

grow. I was obliged to send hay from the main land for the cattle.

The Superintendent reports last winter and spring extremely mild, with very little frost or snow, and no very heavy gales. On the 31st day of January a schooner was seen passing close to the Island; she was the last up to 16th March, when the

first fleet of sealers made their appearance.

The following wrecks have taken place on the Island since last report: On 5th May, 1878, the brig "Barbara," of Dublin, James McNeill, Master, from Limerick, bound to Miramichi, in ballast, was wrecked on the south-east part of the Island; the crew were all saved; the vessel was a total loss; some of the materials being saved by wreckers employed by the master. At the time of the disaster there was a thick fog, and Captain James McNeill states that he mistook the sound of the whistle for a ship's horn. The present blast of the whistle has a duration of five seconds, which is too short, and is about the time of a blast from a ship's fog-horn.

When a new and more efficient boiler is supplied I would recommend that the duration of the blasts and intervals between each should be altered; the present boiler

does not make sufficient steam to effect this.

A complaint was made by Captain Thomas Quigley of the barque "Eva," of Belfast, that he could not hear the fog-whistle; that he made the Island on 1st May in thick fog, and was in the vicinity of the Island for about 24 hours. The Superin-

tendent, Mr. Campbell, replies as follows:—

"On reference to my diary of that date I find there was no fog at all, wind was about S.S.E., cloudy, but no fog all day. A small fishing boat from Neel's Harbor, Cape Breton, commanded by Mr. Benjamin Warner, came off to this Island on Wednesday, 1st May last, with papers and letters for the staff, and he had no occasion to use his compass all the way over. There was also a small fishing craft from Newfoundland at the Island fishing, and the master says he could see Newfoundland shore (a distance of over 40 miles) in the morning of the 1st day of May, and that there was no fog at all.

"I am in a position to prove by competent witnesses, both on the Island and on Cape Breton and Newfoundland, that there was no fog on the 1st day of May last, and that the Island was visible during daylight at a distance of at least five miles, and the lights at night the same distance during the time stated in Captain Quigley's report, as being in the vicinity of the Island in thick and foggy weather. I am prepared, if

called upon by the Department, to prove the above statement by oath."

## SCATTERIE.

The clothing, provisions, &c., at the Station for humane purposes were inspected and found in order. The provisions are renewed from time to time to ensure their being good; the stock of clothing needs replenishing. Half a dozen cork jackets,

and a mortar and rocket life saving apparatus should be supplied here.

The life-boat which has been a long time at this Station was taken to Halifax to be overhauled and a ship's life-boat left in her place. It was found the latter will not suit, being too heavy for the small number of men available on the Island. A lighter and more suitable boat should be provided.

## SABLE ISLAND.

The farming operations for the year 1877 proved satisfactory. The quantity of potatoes and other vegetables raised was greater than the previous year. The potatoes were grown on new ground, and from seed raised on this Island during 1876.

Some tons more of hay were housed than last year. The cattle have been yarded in the new ground taken in at the several stations and plenty of compost made. The Superintendent states that cows do not seem to thrive at the west end of the Island.

The following table shows the vegetables raised during the year 1877:—

Stations.	Bushels Potatoes.	Dozen Gabbages.	Bushels Beets.	Bushels Turnips.	Bushels Carrots.	Tons Hay,
Main New Foot Lake East End West End	544 110 84 245	49 41 19 33	28 6 6	33 20 15 20	2 6 21 6	50 36 28 46 3
Total	983	142	46	88	161	163

The following stock was killed during the year: 8 cattle, 2 calves, 19 pigs and 7 sheep, and there remained on hand 68 cattle, 13 pigs, 33 sheep and 24 trained horses. The buildings are in good repair; the old barn at main station has been repaired and supplied with new doors. New platforms were laid down round several of the buildings, and a large quantity of new fencing put up. The rocket apparatus is in good order.

A new wooden life-boat with metal air chambers which was built by the Department, was sent down this summer, and has proved very satisfactory. The other boats are in good condition. The cranberry crop was very good though somewhat

injured by blight.

A small building was put up as a dairy at the foot of Lake Station, and materials sent down for a barn at the East end 31 x 31 feet—the frame was on the Island and also for repairs of house.

One wreck has taken place on the Island since the last Report.

The Norwegian bark "Emma", Capt. Anderson, from London, bound to Philadelphia, in ballast, struck on the north-east wet bar on the 22nd August, about 14 miles from the lighthouse. She was reported to the Main Station at 10 a.m., and the Superintendent at once manned the life boat, and proceeded down to foot of lake. Owing to the heavy sea it was found impossible to launch the boat on the north side, so a smaller boat was taken from the lake and launched on the south side, though the sea was breaking heavily on the bars. This boat found Capt. Anderson, his wife and four men in a ship's boat, which could not have landed in consequence of the heavy surf on the beach. They were taken on board the Island boat, and as the sea was running too high, and the wind increasing, it was found impossible to put out to the vessel that night. In attempting to land, the boat was filled with water. Capt. Anderson reported that seven men were still on the wreck. Next morning the sea was very high, but a boat was launched which succeeded in reaching the wreck and bringing the men off.

The barque broke up very soon after, nothing of any consequence being saved. The Captain, wife and crew were brought off in the Government steamer and landed

safely at Halifax on 28th September, 1878.

# STEAMER "NEWFIELD."

The following is a summary of the work performed by the Government steamer "Newfield," under command of Captain J. N. Purdy, since my last report.

On the 8th November, 1877, hauled alongside the railway wharf at Pictou Landing and landed the cranbarries, wrecked materials and passengers from Sable and St. Paul's Islands. 9th. Proceeded to Acadia Coal Co. wharf and took on board 396

tons of coal, also received the crew of the Government steamer "Lady Head" and their effects. On 11th, at 8.30, got under weigh. 12th, 10 a.m., passed Cape Gaspé. 13th. At noon lay by off Father Point and signalled fot a pilot, but being unable to procure one, proceeded up the river. 5 p,m., spoke the Government steamer "Napoleon" III," going down the river, and her commander kindly placed the services of his second officer at my disposal for river pilot. At noon on 14th, hauled alongside the Dominion Wharf at Quebec, commenced landing coal and completed landing 220 tons on 16th. 3 p.m., pilot came on board, and proceeded up the river to Montreal. On 17th hauled alongside the pier at Montreal, at Sir Hugh Allan's sheds, and prepared ship to receive cargo. Wm. Smith, Esq., Deputy Minister of Marine, visited and inspected the ship. Midnight of Sunday 19th, commenced receiving cargo, working day and night, and completing the same at 3 p.m. of 21st; also took on board a quantity of lighthouse materials, to be landed at Halifax and Pictou. At 3.30 p.m. cast loose from the wharf and proceeded down the river, and anchored for the night at 7 p.m., Under weigh at daylight of 22nd, and at 4 p.m. arrived at Quebec and hauled alongside the Dominion Wharf and commenced taking in cargo for the Paris Exposition, finishing at 11 p.m. 23rd. Employed taking on board a number of anchors and chains for the Department at Halifax. 6 a.m. of 24th got under way and proceeded down the river, anchoring at dark near the Brandy Pots, the buoys being all taken up for the season, making it unsafe to proceed at night. 3 a.m., 25th, got under weigh and 10 a.m. landed the pilot at Father Point. 26th, 10 a.m., passed Gaspé and arrived at Pictou on 27th. Hauled to the Railway wharf on 28th and landed the materials for Prince Edward Island, &c., and took on board a quantity of goods for the Exposition; also proceeded to the Acadie Coal Co. Wharf and received 96 tons of coal. 29. Proceeded to sea and came to anchor at Port Hawkesbury at 4 p.m., a violent gale from south east prevailing. 11 p.m. gale increasing paid away second anchor. At 9 a.m. on the following morning the wind abating got under way and arrived in Halifax on 1st December and hauled to the Government Wharf and landed the stores for the Department. December 3rd commenced taking cargo from the after-hatch, it being necessary to restow the ship to enable her to carry all the goods from the Lower Provinces, intended for the Exposition. Remained in Halifax receiving the New Brunswick and Prince Edward Island goods, and restowing the ship and making other preparations for a winter passage across the Atlantic, until 17th December, then proceeded to sea.

Experienced moderate weather with the exception of a heavy gale from the eastward on 20th and 21st December. 29th, at 10 p.m. made Bell of Portland lights.

30th, received a pilot, and docked ship in Port of Havre, at 4 p.m.

1st January, 1878, received orders from the Minister of Marine, per cable, to proceed to Rouen to discharge. 2nd, proceeded up the River Seine, the vessel in charge of a Government pilot, and arrived at Rouen at 4 p.m., and moored alongside of the quay. 3rd, the Port Wardens having previously examined the hatches, and pronouncing everything satisfactory, began discharging the goods into lighters to be conveyed to Paris. 11th, completed discharging, it being all landed in good condition.

Remained in Rouen taking in coal, and endeavouring to secure a return freight to America, until 22nd, but nothing offering, received (23rd) a despatch from the Minister of Marine, ordering the ship's return to Halifax in ballast. 8 a. m. pilot came on board, and proceeded down the River Caumont pres la Bouille, arriving at 10 a. m., and prepared ship to receive ballast. Commenced ballasting but the weather being unfavorable and rainy, was unable to finish until the 28th, having received 375 tons. Being unable to procure coal at Caumont, and not deeming it prudent to return without a sufficient supply at this season of the year, went back to Rouen on 29th. Took in 62 tons additional coal, and thoroughly shoved off, and secured the ballast, filled fresh water, and obtained the necessary provisions.

February 2nd, at noon the pilot came aboard, cut loose and proceeded down the river, anchoring 12 miles below Nellegueir for the night; whilst coming down the river, a Government pilot being in charge, struck heavily against the bank, but

apparently received no injury, as the bottom was soft. 3rd, 10 a.m., the tide being suitable, got under way, and at noon landed the pilot at Havre, and proceeded on the voyage. 4th, signalized ship "Azaline," and Steamship "Para," and sighted St. Agnes and Bishop Rocks Lights, distant 9 miles. On 7th, at midnight, a heavy gale prevailing from S.S.E., with a high sea running, hauled ship's head to wind at easy speed. Following morning the weather moderating and clearing up, kept ship in her course till noon, when some of the boiler tubes having commenced to leak, drew the fires from the furnaces and plugged them. At 5 a.m. started the engines again at full speed. On 12th at 5 p.m., sighted a large bark rigged steamer, standing to the eastward, which fired a gun, sent up rockets, and hoisted signals, but as darkness was coming on could not make them out. Kept away for her, and a boat from the Allan Line steamship "Hibernian," 14 days out from Liverpool for Halifax, came alongside and reported they had broken their shaft four days previously. Lay by the steamer, and received her mails and 14 passengers, being all that could be accommodated. 8.30 p.m., kept ship on her course. Capt. Archer of the "Hibernian" required no further assistance, but would proceed back to Queenstown under canvas.

On 14th, during a heavy blow from W.N.W., at 7 p.m., shipped a sea forward which stoved in the forescuttle, and filled the decks with water, also damaging some stores and starting the bridge deck. On 17th, at 10.30 p.m., made Sambro's Light, and at 1.40 a.m. of 18th, hauled alongside the wharf at Halifax, and

landed the mails and passengers.

Upon arrival at Halifax from Rouen, France, on the 18th February, was employed putting coal from hold into bunkers, scaling ship, landing chain, discharging ballast, &c., until the 1st of March, when part of crew were discharged, retaining only those necessary. Remained in Halifax fitting store rooms, chart room, scaling and cleaning ship, workmen also being employed repairing after ballast tanks, and engineers making the necessary repairs to machinery and steam wenches.

On the 26th of March, W. M. Smith, Esq., Inspector of Steamboats, visited the

ship, and inspected the boilers and machinery.

April 1st. Re-shipped crew and commenced getting the ship ready for sea; 13th, tested the after-ballast tank in presence of W. McDonald, Cunard & Co. Superintendent, and found it tight; 16th, commenced taking on board stores for Sable Island, bending sails, &c.; 17th, proceeded to Roche's wharf and took on board 80½ tons coal. On 18th, left for Sable Island, arriving at the East-end Light at 9 a.m. on the 19th,

and landed the supplies for that Station.

Having taken on board the empty oil-cases, got under way, and proceeded to the main station, arriving at 3.45 p.m.; took on board some coal-bags and barrels of grease, and proceeded to the West End Station, having on board the Superintendent of the Island, a child and one man as passengers for Halifax. Landed a fine new lifeboat at this Station, and arrived at West End Station at 6.30 p.m. Landed the oil and supplies for the light, and put them in a place of security, and left word for the teams to come up on the following day and convey them to the storehouse. A strong breeze springing up from the northward, causing a heavy surf, rendering it dangerous to remain any longer, and the night being very dark, got under way, and at 4 p.m. on the 20th, arrived at Halifax and berthed ship.

On the 21st and 22nd landed the stores from Sable Island and took on board a quantity of oil and stores for Cape Sable Light and Fog-whistle. At 9 a.m. of 23rd, got under way for Cape Sable, having a number of labourers on board to assist in landing coal. At 6 p.m. anchored inside the breakwater at Liverpool, and at 8 a.m. on the 24th, proceeded, and at 2 p.m. anchored in Shelburne Harbour, the fog being very thick. The fog still continuing, with strong easterly gales prevailing, rendered it impossible to land at Cape Sable; remained in Shelburne until the 2nd of May when the wind shifting to the north-west, got under way at 8 a.m. and anchored off Cape Sable and commenced landing the coal and supplies, although the sea was still breaking heavily on the beach. Finished on the 4th of May, having landed 111 tons.

On the 5th of May, at 8 a.m., got under way; 7 p.m., thick fog; slowed the engines. 6th, 8 a.m., fog lifting a little, put on full speed; at 10 a.m. heard Sambro Fog-whistle, being at that time about three miles southward of it, and by the sound was enabled to steer for the automatic buoy, and thence up the harbour, notwithstanding the dense fog; at noon hauled to the wharf and landed empty oil-casks from Cape Sable.

On 7th and 8th of May discharging ballast from fore hold and preparing vessel to go on the marine slip. On the 9th proceeded to slip at Dartmouth, but a strong gale prevailing, was unable to be hauled up. On the 10th, at 8 a.m. was hauled on slip for the purpose of cleaning and painting ship's bottom. On the 16th, at 7 a.m., was launched off slip, and proceeded to wharf and commenced taking on board lighthouse stores, bell buoy for Grimes' Shoal, lumber and a new lantern for Egg Island.

On 20th May, at 5 a.m., cast off from wharf and proceeded to Egg Island, having a number of carpenters and workmen on board to erect new lantern; 9.30 a.m., arrived at Egg Island, but the sea was too heavy to effect a landing, and returned to Halifax, arriving at 3 p.m., and landed the workmen and their effects. At 2 a.m. on the 21st, got under weigh for the eastward, and in passing Egg Island found too much sea on for landing; at 6 p.m. passed the Grimes Shoal, the sea breaking heavily all round it; could not place the buoy in position; kept on for Pictou; at 9 p.m. anchored in Port Hawkesbury; sailed next morning at 5 a.m., and arrived in Pictou at 1 p.m.

The berth being occupied could not haul to the wharf until 6 p.m.; 23rd and 24th taking on board coal from the Vale Coal and Iron Manufacturing Company; at 1 p.m., on 25th, having received 720 tons of coals, sailed at 2 p.m., and anchored at Port Hawkesbury at 9 p.m.

On 27th at 9 a.m. got under way and placed the Grimes buoy in position, east by south 400 yards from the shoal; thence proceeded to Roaring Bull Breaker, off Canso, and placed a spar buoy on south side of it in three fathoms, and anchored in White Head Harbor at 7 p.m.; 28th, sailed from White Head and landed at Egg Island, new lantern, stores and lumber, and arrived in Halifax at midnight.

On 29th, hauled to wharf and commenced landing coal; received orders to have ship fitted to receive two 40 pound Armstrong guns; workmen employed cutting ports and making the necessary alterations forward, till 10th June, when orders were received to take stores for the Bay of Fundy lights and fog whistles; took on board lighthouse stores and supplies, and also a new lantern for Machias Seal Island; 11th, proceeded to Richmond and took in 110 casks of oil, and returned to the wharf and took on board balance of lighthouse stores, and sailed on 12th; 8 p.m., thick fog, slowed engines; 13th, at 1 p.m., anchored at Seal Island and commenced landing the coal and supplies, and having completed on 17th landing 150 tons of coal, &c., sailed and anchored at Cape Forchu at noon, and commenced landing coal and supplies, and finished on 21st, after landing 150 tons of coal, &c., and supplies for the Yarmouth Beacon Light, got under way, and at 9 a.m. arrived in Westport, Brier Island, and commenced landing coal, finishing on 26th at noon, having landed 150 tons, also landed supplies for Brier and Westport lights, and also a spar buoy to be placed on a shoal in the centre of Grand Passage.

At 2 p.m. received orders to return to Yarmouth, the steamer "Glendon" having been run into and disabled, and take from her the bell buoys for Brazil Rock and John's Island Ledges, and place them in their positions; 3 p.m., got under way, and at 9 p.m. anchored at Yarmouth sound; on 27th, sent the crew up to Yarmouth to prepare the buoys and moorings; on 28th, 7 a.m., a tug boat brought the "Glendon" alongside, took the buoys and moorings on board from her and at 9 a.m. got under way; 2 p.m., anchored close to Brazil Rock, lost an anchor and chain (60 fathoms) by the officer in charge not properly attending to it; at 9 p.m. placed the bell buoy in position 200 yards S.S.W. from the rock in 20 fathoms of water; on 29th, thick and foggy. 10 a.m. under weigh, and anchored at 4 p.m.; 6 p.m. placed the bell buoy in position 2 miles west by south from John's Island Ledge to 19 fathoms;

on 30th, weighed anchor and anchored in Glenwood's Passage at 11 a.m.

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On 1st July at 9 a.m., took the spar buoy and moorings in the boats, and in company with the Superintendent of Lights, proceeded to place it in position in the south end of Pease's Island Ledge, and also to locate a site for the lighth ouse about to be erected on Pease's Island; 5 p.m., having completed the same, got under way, and at 7 anchored in Yarmouth Sound.

The lighthouse on Pease's Island will be very useful when completed, as it marks the southern entrance of the Passage, but another light is much needed for the northern entrance, to be placed on either Owl's Head, Candlebox, or Ellenwood's Isle, which would also be a guide to vessels bound for Little River and other harbours to

the northward of Tusket Islands.

At 6 a.m. of 2nd, weighed anchor, and at 10 a.m. arrived at Westport, and proceeded to raise the spar buoy on the shoal in Grand Passage, it not being suitable, being too small, and covered at high water. Owing to the strength of the tide, a can buoy would be better adapted for this shoal; on 3rd, dense fog so that the entrance of the passage could not be seen; on 4th, at 3 p.m., the fog lifting, got under weigh, went to Boar's Head and landed the supplies for the light, proceeded on and anchored in Digby Basin at 9 p.m.; on 5th, at 7 a.m., got under way and anchored off Littaney's Beach, and commenced landing coals, finishing on 9th at 8 a.m., 150 tons; also landed oil and supplies for the Station; also left a spar buoy and moorings in charge of the Harbour Master, to be placed on a ledge off Goat Island, Annapolis River; 10 a.m., got under way, and at 1 p.m. anchored at Port William and landed the oil and supplies for the light. 2 p.m. proceeded and anchored off Margaretville; at 3 landed oil and supplies, proceeded for Black Rock and landed oil and supplies; 10th, thick fog; 11th, 6. a.m. fog cleared away—got under way and anchored off the Isle au Haut at 8 a.m., and landed the supplies for the light in course of erection there. Also placed a spar buoy in the eddy for boats' moorings. The Superintendent visited the lighthouse and inspected the progress of the work. 3 p.m. under way for Cape D'Or, anchoring in Horse Shoe Cove at 4:30 p.m., and engaged teams to assist in landing coal. 12th to 16th, landing coal—150 tons, and 17th under weigh—anchored at Parrsboro' at 9 a.m., and landed supplies. Noon, sailed for Horton Bluff, arriving at 2.30 p. m., and landed supplies for the Station. 18th, at 11.30, got under way for Walton and landed oil and supplies. This Station can only be served at high water, slack tide, and then the vessel has to lay about two miles off. This is on account of the strong tides, and the distance for the boats to go and return to the ship occupies a great deal of time. At 4 p.m. got under way, and at 5 anchored at Burnt Coat and landed supplies. 19th weighed anchor and proceeded to Apple River Light Station, and landed the supplies for the light, and then proceeded and anchored in mouth of Memramcook River, and on following day commenced taking in coal from the Spring Hill Mines for the use of New Brunswick fog alarms.

Remained in Dorchester River, N.B., taking in coal until 31st July, when having completed loading 707 tons at 9:30 a.m., got under way, and anchored at Cape

Enrage at 1 p.m., and began landing coal.

August 1st, finished landing 57 tons coal and got under way for Isle au Haut, and landed an additional quantity of oil. 2nd, sailed for Quaco, landed supplies

for light, and then proceeded to St. John, arriving at 3 p.m.

August 5th, commenced discharging coal into scows for Partridge Island fogalarm, also supplies. Finished on 6th, having discharged 150 tons. 7th, hauled into wharf and commenced taking on board supplies, lumber, &c., for the New Brunswick lights. On 9th, at 7 a,m., J. H. Harding, Esq., Agent for Marine and Fisheries, and W. M. Smith, Esq., Inspector of Steam boats, and a number of mechanics came on board, but owing to a dense fog prevailing did not get under way. 12th, 9 p.m., weather clearing, proceeded for Point Lepreaux and landed a quantity of lumber, thence to Bliss Island and Head Harbour, landing lumber at both places, and at 6 p.m. anchored off Machias Seal Island and landed passengers, and commenced discharging. Remained until 15th discharging lumber, coal (150 tons) &c., and then sailed for Grand Manan, arriving at Seal Cove at 4.30

p.m. A thick fog prevailed until 18th rendering it impossible to proceed to Gannet Rock, on account of the dangerous navigation. On 19th fog lifted, sailed and anchored at Gannet Rock, and commenced landing lumber, but after landing two boat loads was obliged to desist on account of the heavy sea and narrowness of the only landing, which is here formed by a gulley between the rocks, through which the sea rushes with great violence. Weighed and anchored in Seal Cove at 5:30 p. m. 20th sea being too heavy to land at Gannet Rock, proceeded to North Head, and commenced landing coal; 6 p. m. got under way, and anchored in Flagg's Cove. 21st, proceeded at 6 a.m., lay by off Seal Cove and took on board people to assist in landing, and anchored off Gannet Rock, and commenced landing supplies and 15 tons coal, and proceeded for Seal Cove, anchored for the night and landed the labourers. On 22nd sailed for North Head and finished landing 117 tons coal. 23rd, got under weigh for Swallow Tail Light, landed supplies and 12 tons coal; proceeded to Southern Wolfe, landed supplies and 9 tons coal, and anchored in Bliss Harbour at 8 p. m. 24th, proceeded to the light, landed supplies and 2 tons coal, and then to Head Harbour, St. Andrew's Beacon, landing coal and supplies, and also sent the boats to St. Andrews with the supplies for the River lights, at Passamaquoddy, Marks and Spruce Points. 26th, proceeded to Midjic Bluff and Pea Point and landed supplies. The landing at the latter Station is very bad, and occupies much time, as it can only be done at high water; at noon anchored in Beaver Harbour, landed supplies, then proceeded to to Thompson's Cove, Point Le Preaux, and landed 100 tons coal. 28th, having finished landing, proceeded to St. John, and landed return stores, &c.

A thick fog prevailed until 3rd September, when the fog lifting got under way at 6 a.m. Anchored near the entrance of Grand Passage, Briar Island. On heaving up anchor found it had broken short off just below the stock, probably caused by striking against a rock. At noon passed through the passage, anchored in Yarmouth Sound, at 4.15 p.m. On 4th, got under way for Halifax, arriving at 3.30 a.m., on 5th. Hauled into a berth at the wharf and began taking in coal. On 7th, Mr. McDonald, Superintending Engineer for Cunards, in company with the Chief Engineer, examined the ship's propellor, and reported that it was not in a safe and seaworthy state, and recommended that the ship should be placed upon the slip for further examination. On 10th the ship was placed on the marine slip at Dartmouth, and after a further examination by Mr. McDonald, had the propellor removed and the shaft taken out, and put in the lathe and turned off to be refitted. On 17th the refitting being completed, and the ship's bottom having been painted; at 10 a.m. hauled the ship off the slip, and towed to the wharf, and began taking on board lighthouse stores, coal, &c. On 19th, having received 90 tons coal, proceeded to oil store at Richmond, and took on board 150 barrels oil, returned to the Government wharf and took on board a quantity of lighthouse stores; also new lanterns for Louisburg and Mainadieu Light Stations. On 21st, Mr. Roche, Lighthouse Superintendent, being on board, proceeded to sea, and anchored in Sheet Harbour, at 4.20 p.m., when Mr. Roche located a site for the new lighthouse. On 22nd proceeded to White Head, and lay there until 25th; the weather being unfavorable for landing at Sable Island. On 26th, at 5.30 a.m., anchored off west end of Sable Island; landed stores; took on board a quantity of fog-whistle machinery, and also Mr. Morrison, Engineer, his family and effects; proceeded to the Main Station and took on board a quantity of wood, wrecked material, machinery, and a horse, and four women, two children, and two men. Also the Captain, wife, and crew, 10 in number, of the Norwegian Barque "Emma," from London for Philadelphia, which was wrecked on the East bar on 23rd July; then proceeded to the Eastend Lighthouse and landed the stores and a quantity of lumber and shingles. On 27th at daylight, got under way and anchored in Halifax at midnight. 28th, hauled into the wharf and landed the stores and passengers. On 29th, got under way for Green Island, C. B.; arrived 30th, at 11 a.m.; landed oil stores, and took aboard a number of empty oil casks and some packages and sailed for Pictou, and anchored at midnight outside the bar.

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On 1st October, proceeded to Vaie Coal Company's wharf, and took on board 2011 tons coal, and proceeded to Port Hood and Margaree, and landed the supplies for those lighthouses. 4th, proceeded to Cheticamp, landed stores, and at 4 p.m., landed in Atlantic Cove, St. Paul's Island; landed supplies and 46 tons of coal. 6th, commenced to blow from south-east, and at 4 p.m., being unable on account of the sea to land any more, got nnder way, and at 11 p.m anchored in the Harbour

of North Sydney.

7th, landed the supplies at Ingonish Light, and on the 8th supplied Cape North Lighthouse, and anchored in St. Anne's Bay. On the 9th supplied the lighthouses at St. Anne's, Bird Island, Black Rock Point, and at 5 p.m. anchored at Kelly's Cove, Bras d'Or Lake. 10th, proceeded up the lake and supplied McKenzie's Point, and Kidston's Island Lighthouses. 11th, supplied Cape St. George and Grand Narrows Lighthouses, and anchored at Baddeck at 5 p.m. 12th, landed the stores at Point Aconi and Sow Point, and took on board the old lantern, and anchored for the night in North Sydney. 14th, landed the supplies for Sydney Bar Light, and also an iron can-buoy and received on board a quantity of supplies for Sable Island, and two male and two female passengers, and as some of the boiler tubes were leaking, had them attended to. 15th, got under weigh, and supplied Lingan and Flint Island Lighthouses, and anchored at Cow Bay. 16th, supplied Scatterie Lighthouse, and also landed 10 tons coal, and a new life-boat, and brought off the old one; landed the stores and a new lantern at Mainadieu Light, and anchored in Mira Bay for the night, the weather being thick. 17th, weather clearing a little, proceeded to Louisburg, and landed the supplies and new lantern, and brought off an iron can-

Remained in Louisburg, strong gales and thick weather prevailing until 22nd, when the weather moderating proceeded to Guyon Island; landed stores and 10 tons coal, and proceeded to St. Esprit Island, where the Superintendent landed to

select a site for a lighthouse; sailed for Whitehead and arrived at 11.40 p.m.

Remained in Whitehead Harbour until the 27th, a succession of heavy gales preventing any attempt at a landing on Sable Island. At 5 p.m. on the 27th the weather moderating a little, started for Sable Island, and anchored at the main Station as 8 a.m of the 28th; landed one boat load, but the sea being too heavy, got under way and went to the East End; landed passengers and four tons of coal and all the supplies except the cement, which could not be landed, as the boats filled on At 4.15 p.m. got under way for Pictou, and arrived at 5 the beach on each trip. p.m. of the 29th; hauled to the railway wharf at Pictou Landing, and landed the stores to be warehoused. 31st, proceeded to the Vale Coal Co. wharf, and com-

menced loading coal.

November 2nd. Having received on board 408 tons coal, also the engineer and second officer of the wrecked steamer "Venizea,' as passengers for Quebec, and sailed. Had strong northerly gales and snowstorms during the passage. On the 4th, at midnight, took a pilot off Father Point, and at 11 a.m. on the 6th, hauled to the Queen's wharf at Quebec; landed the passengers and began discharging coal, finishing on the 12th, after discharging 652 tons; also took on board a quantity of anchors and chains for Prince Edward Island and New Brunswick. At midnight got under way for Pictou. 13th, 2 p.m., discharged the pilot below Bic Island; experienced during the remainder of the passage strong gales; at 5.30 p.m. or the 14th, during a severe gale, the ship being light, and labouring heavily, the port-waist boat was struck by a sea and destroyed. On the 15th the weather moderated, and arrived at 3 p.m., hauled to the Railway wharf at Pictou Landing and took on board the stores landed previous to sailing for Quebec. 16th, landed the anchors and chains for the Department at Prince Edward Island, and placed them in charge of Mr. Cook to await orders, and, on the 18th, proceeded to the Vale Coal Co's wharf and commenced loading coal for Halifax.

# STEAMERS "LADY HEAD" AND "GLENDON," UNDER THE COMMAND OF LIEUT. D. M. BROWNE, R.N.

#### SUMMARY OF PROCEEDINGS SINCE LAST REPORT.

The steamship "Lady Head" arrived at Halifax from the Gult of St. Lawrence on the 8th November, 1877. Her officers and crew went home to Quebec, and the staff belonging to the "Glendon" were transferred to her on the 14th November. On the 20th November they returned for the day to the "Glendon," and placed the automatic buoy in position.

#### STEAMSHIP "LADY HEAD."

November 14th.—Having received officers and crew from "Glendon," left Halifax for Cross Island at daylight. Having arrived there commenced to take on board the old lighthouse lantern; anchored in Lunenburg Harbour for the night.

November 15th.—At daylight proceeded to Cross Island and took on board remainder of material, and also the workmen; returned to Halifax and arrived at

the wharf in the evening; Captain Morin left for Quebec.

November 29th.—Vessel was placed on marine slip at Dartmouth for the purpose of having her bottom cleaned and painted, and a leak stopped in the side discharge; the vessel having been cleaned and coated with Rahtjen's patent composition was floated on the 5th December.

December 11th.—Proceeded to Roche's wharf and coaled ship.

December 12th.—Employed provisioning, and otherwise preparing for sea.

December 13th.—Received stores for Sable Island; weather stormy. December 14th.—Received lighthouse stores for Sambro; still stormy.

December 15th.—At 9 a.m. left the wharf, proceeded to Sambro and landed stores; at 11 a.m. the engineer reported dome of boiler to be leaking; immediately returned to the wharf at Halifax, blew off the boiler and employed a boiler maker to make good the defect.

December 16th.—Weather unsettled.

December 17th.—Left Halifax at 9 a.m., and proceeded to the eastward; heavy swell from southward; wind from south-west with indications of snow; at 9.30 p.m. arrived at Whitehaven.

December 18th to 27th.—Detained at Whitehaven by strong northerly winds

which frequently blew with great force.

December 28th.—The wind falling at 8.30 a.m.; left Whitehaven for Sable Island and anchored off the main station at 5.15 p.m.; found a heavy surf on the beach. Landed mails and passengers, and afterwards stood off into the offing for the night.

December 29th.—Anchored off the main station at 7.30 a.m., and landed coal and stores; took on board cranberries; weather fine with light breeze from westward. At 5.30 p.m., left the Island for Halifax.

December 30th.—At 8.30 a.m. arrived at Halifax.

January 10th, 1878.—Coaled ship at Roache's wharf, and took a supply for Cranberry Island.

January 11th.—Provisioning ship and preparing for sea.

January 12th.—Storm from the south-east; received stores for Whitehaven Light.

January 13th.—Weather unsettled.

January 14th.—Left the wharf, Halifax, at 8.30 a.m., and proceeded to the eastward. At 2 p.m., in consequence of the threatening appearance of the weather bore up for Beaver Harbour and anchored there at 3.30 p.m. Wind freshened into a gale from south, with snow.

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January 15th.—At 10 a.m. left Beaver Harbour for the eastward. There being a very heavy sea on, and the weather looking threatening, bore up for the Liscomb and arrived there at 3.30 p.m.

January 16th.—Remained at Liscomb. A very heavy sea running outside the

harbour and the weather looking threatening.

January 17th.—Left Liscomb at 8 a.m., and arrived at Whitehaven at 1 p.m. Landed stores for the lighthouse. Wind from N.W., and weather severely cold.

January 18th.—Left Whitehaven at 8 a.m., and anchored inside Cranberry Island at 11. Commenced to land coal for the fog-whistle. At 4.30 p.m. went into Cape Canso Harbour for the night.

January 19th.—Wind light from the westward. At 7.30 proceeded to the Grimes Bell Buoy. At 9 made fast to the buoy and began to weigh the moorings.

At 5.30 p.m. returned into Cape Canso Harbour with the buoy in tow.

January 20th.—Sunday. Remained in Cape Canso Harbour.

January 21st.—Hoisted the bell buoy in and stowed the mooring anchors. Raining in the afternoon.

January 22nd.—Blowing fresh from S.W., with rain.

January 23rd.—At 8 a. m. proceeded to Cranberry Island. Finding too much sea on for landing coal returned into harbour; p.m. rain and hail.

January 24th.—Thick with occasional snow. Heavy sea running.
January 25th.—The sea having gone down proceeded to Cranberry Island at 7.30 a.m., and landed coal. 1.30 p.m. weather becoming stormy returned into harbour. Total quantity landed about 25 tons.

January 26th.—At 7.30 a.m. left Cape Canso and proceeded to the westward.

At 2 p.m. blowing from the S.E., and very thick, put into Beaver Harbour.

January 27th.—Wind fresh from S.W., and clear. Left Beaver Harbour at 9.30 a.m. Very high sea running. At 6.30 p.m. moored to the wharf at Halifax. January 28th.—Landed the bell buoy and moorings.

January 31st.—Discharged the crew.

February 7th.—Changed the bell buoy at Sisters and afterwards took an

engineer to Sambro' Island.

On the 21st February a survey was held on the machinery and boilers by Mr. Warner, Engineer of the "Newfield," and Mr. Morris, Engineer of the "Glendon," and the following repairs were recommended:—Scaling and cleaning out boiler; tube sheets, furnaces and uptake to be repaired; valve motion and gab rods to be repaired; and new brasses to be fitted to air pump. These repairs were commenced on the 19th March.

#### STEAMPHIP "GLENDON."

March 18th.—Shipped a crew and commenced to prepare vessel for buoy

service.

March 19th. -Information was received that the bell buoy had broken adrift from the N.W. Ledge, off Brier Island. Crew employed overhauling mooring chains

March 20th.—Engineer examining spare bell buoy and preparing it for N.W. Ledge. Crew bending sails.

March 21st.—Crew employed about buoy moorings.

March 22nd.—Received stores for Sambro' Island.

March 23rd.—Proceeded to Sambro' and landed lighthouse stores. Returned to wharf in the evening.

March 25th.—Received on board two can buoys and a spar buoy for Shelburne

Harbour.

March 26th.—Hoisted in bell buoy and moorings. Weather thick

March 27th.—At 11 a.m. left Halifax and proceeded to the westward; 3 p.m., coming on thick and squally bore up for St. Margaret's Bay, and at 5.30 anchored at Redman's Cove. Thick fog. 176

March 28th.—At 9.15 a.m., fog lifting, proceeded to the westward. In the afternoon thick fog with heavy showers of rain. At 6.50 anchored inside the breakwater at Liverpool.

March 29th to 31st.—Detained at Liverpool with S.E. wind and heavy rain.

April 1st.—Weather clearing, at 6 a.m. proceeded to the westward; 3 p.m., went through Barrington Pass; 4.30 anchored in Stoddart's Cove. Overcast and threatening snow.

April 2nd.—Thick with snow till 10 a.m. At 11 proceeded to westward, passing between the Seal and Mud Islands. 3 p.m., finding that vessel made no headway against the strong northerly wind bore up for Pubnico and anchored there at 5.30.

April 3rd.—Strong breeze from N.N.E. all day. Remained at Pubnico.

April 4th.—At 7 a.m. left Pubnico, and arrived at Yarmouth at 11.30. Wind

from N. E. and threatening.

April 5th.—Left Yarmouth at daylight for Westport. At 7.45 passed the Trinity Ledge bell buoy. Found it to be in good order. At 10 anchored off Westport, Brier Island. Wind freshened into a strong N. E. gale, with heavy rain.

April 6th.—Blowing strong from N. E. Received on board the bell buoy, broken

adrift from N. W. Ledge.

April 7th and 8th.—Detained at Westport. Blowing strong from the northward

April 9th.—Light breeze from the northward. At 6 a.m. proceeded to N. W. Ledge and placed the buoy. At 5.30 p.m., arrived at Yarmouth. The Chief Engineer being sick with diptheria, landed him for medical treatment.

April 10th.—At daylight left Yarmouth. At noon a dense fog rounded Cape Sable, by the sound of the fog whistle. 5.30, fog lifting, proceeded into Shelburne

Harbour, and anchored inside Sand Point.

April 11th.—At 8.30 a.m., commenced to place buoys in Shelburne; a red can buoy to the westward of Middle Shoal; a red can buoy off the west extreme of Sand Spit, and a black spar buoy off the east extreme of the Adamant Shoal. At 3 p.m. anchored off the town.

April 12th.—At daylight left Shelburne. At 7.30 when off the Bell Rock, observed that a barque, while working out off the harbour had missed stays and grounded on the rocks off N.E. bluff; immediately put back to her assistance. Wind fresh from S.E. Found barque to be the "Souvenir" of Yarmouth, N.S. Got hawser from her and went ahead full speed, hauling her off the rocks. Her forefoot and false keel being knocked away. She proceeded up the harbour. At 9 proceeded to the east. Found the spar buoy off the Bull Rock in position. A S.E. gale coming on, put into Port Hebert, and anchored inside Shingle Point.

April 13th.—At 8.30 left Port Hebert, and proceeded to the eastward; weather unsettled. At 5 p.m. a dense fog; at midnight rounded Sambro' by the sound of the

fog whistle; a dense fog over the Island.

April 14th.—At 5.30 a.m. moved to the wharf at Halifax.

April 15t.h—Landed the bell buoy.

May 2nd.—Took on coal for Sambro' fog-whistle.

May 3rd.—Landed coal at Sambro'.

May 13th.—Landed coal at Sambro'. The weather between 3rd and 13th was

stormy, causing too much sea on at the Island for landing.

May 15th.—Proceeded to Sambro' with Mr. H. W. Johnston, Agent, on board. Mr. Johnston landed, accompanied by Mr. Morris, Engineer, to inspect fog-whistle machinery. At 4 p.m., returned into harbour.

May 16th.—Placed the vessel on marine slip at Dartmouth to be cleaned and copper painted; Mosley's paint put on the starboard side, and Tarr & Wonson's on the Port side.

May 20th.—Vessel taken off the slip. Artificers fitting a magazine and gun ports.

May 21st.—Fittings being made for two 40-pounder Armstrong guns.

May 22nd —At 8 a.m. proceeded to Sambro with Mr. H. W. Johnston, Agent, and Mr. W. M. Smith, Steamboat Inspector, on board. 10 Officers landed and held investigation into the state of fog-whistle machinery. 5 p.m., left Sambro and proceeded into harbour.

May 29th.—Took on board coal for Sambro'. June 1st.—Proceeded to Sambro' and landed coal.

June 8th.—Proceeded to Sambro' at 8 a.m., with the Lighthouse Superintendent on board. 10.30, Superintendent landed and placed an engineer in charge of the fog-whistle. At 1 p.m., proceeded into Sambro' Harbour, and procured information respecting the buoys required for that place. 5 p.m., returned to the wharf at Halifax.

June 10th.—Employed taking on board lighthouse stores for the western lights

and material for Coffin Island.

June 11th.—Wind from eastward, thick with drizzling rain.

June 12th.—At 8.30 a.m. proceeded to Sambro' with Lighthouse Superintendent on board. 10.30, Superintendent landed and placed Mr. George Johnson, Engineer, in charge of the fog-whistle. 4, returned into harbour.

June 13th.—Left Halifax at 8.30 a.m. for the westward. At 1 p.m., landed stores at Sambro'. At 9 p.m., off LaHave; a dense fog. Stood off and on under easy

steam during the night, fog being too thick to approach the land.

June 13th.—At 4 a.m., fog still very thick; stood in under easy steam. 6.30, anchored inside the breakwater at Liverpool; sent stores and building material to Coffin Island.

June 15th.—Wind from S.W.; a dense fog outside; heard from Captain Doane, of the steamship "Edgar Stuart," that the bell buoy off Brazil Rock was low in the water, and in a damaged state.

June 15th.—Fog all day.

June 17th.—At 4 a.m., left Liverpool for the westward. 6, landed supplies at Little Hope Island. 3.30 p.m., arrived at the Brazil Rock; commenced to unshackle the buoy and weigh the moorings. 8, anchored in Barrington Harbour with buoy in tow.

June 18th.—Thick fog and drizzling rain all day; sent supplies to Barrington

Light Vessel; got the bell buoy on board.

June 19th.—Rain the early part of the day. At 11.15 a.m., proceeded to the westward through Barrington Pass, placing a red can-buoy on the Triangle Shoal. 1.30 p.m., landed supplies at Bon Portage; fog coming in from S.W. anchored in Stoddart's Cove.

June 20th.--At 4 a.m., proceeded to westward for Seal Island. At 6.10, Super-intendent landed to inspect fog-whistle and lighthouse establishments. 8.45, proceeded for Yarmouth. 1.30 p.m., moored alongside Burrell Johnson's wharf at Yarmouth, and landed the Brazil buoy for repairs.

June 21st.—Received on board bell buoy for St. John's Ledge. 1.30 p.m., left Yarmouth and proceeded to the northward for St. Mary's Bay. At 9.30, anchored off

Weymouth and landed lighthouse supplies.

June 22nd.—At 4.30 a.m., proceeded down St. Mary's Bay, supplying the lights at Church Point, Meteghan and Cape St. Mary. At 6.30, anchored off Battery Point, Yarmouth.

June 23rd.—Wind from S.E. fresh. At 6.20 a.m. the schooner "Emelia Sabin" came in from sea and struck ship on starboard broadside abreast the funnel, cutting the side down two streaks below the covering board, displacing boiler and doing other damage; in afternoon, S.E. storm.

June 24th.—Thick with drizzling rain; engineers and firemen clearing away broken gear. 3 p.m., taken in tow by tug boat and placed at Burrell Johnson's wharf, having received a telegram from the agent to place repairs in the hands of

that firm.

From the 25th of June to the 5th of July, the vessel was under repair.

On the 28th of June the "Newfield" having arrived, engaged a tug boat to tow vessel into the Sound, and transferred the Brazil and St. John's Ledge bell buoys

July 5th.—Mr. W. M. Smith, Steamboat Inspector, tested boiler after undergoing repairs, and reported everything correct. At 2 p.m., proceeded to Yarmouth Sound and landed Mr. Smith at the fog-whistle. 5.20, returned to the wharf.

8th.—At daylight left the wharf and proceeded to the anchorage inside Beacon Light; dense fog. 1 p.m., weather clearing, left Yarmouth and anchored inside the Fish Islands, Tusket River, at 6.10.

July 9th.—At 4 a.m., left Tusket River and proceeded to the southward; 9.50, supplied Argyle light; 11, landed supplies at Pubnico; a thick fog setting in,

remained at anchor,

July 10th.—Lying in Pubnico Harbour; dense fog with rain.

July 11th.—At 6 a.m., left Pubnico; 8.30, communicated with Bon Portage Lighthouse; at noon, landed supplies at Baccaro; 4 p.m., supplied Cape Negro; 5.30, found too much sea on for supplying Shelburne Light proceeded into the harbor and anchored inside of NcNutt Island.

July 12th.—At 4 a.m., proceeded to Shelburne Light and landed supplies : 7. left for the eastward; 10, communicated with Little Hope Lighthouse; 9.30, arrived

at the wharf at Halitax.

July 13th.—Received on board a new lantern for Egg Island.

July 15th.—At daylight proceeded to Egg Island; landed the new lantern and took on board the old one; at 7 p.m., arrived at the wharf, Halifax.

July 20th.—Received on board a new lantern and building material for Hobson's

Nose.

July 22nd.—Detained at the wharf; squally with rain.

July 23rd.—At 10 a.m., left for Hobson's Nose; at noon, passing inside Sambro'; weather thick and wind freshening from the westward; returned into Halifax Harbour.

July 24th.—At 6.30 a.m., left Halifax and arrived at Hobson's Nose at 6.30 p.m.; landed the lantern and building material; 4, proceeded for Halifax and arrived at the wharf at 9.45.

July 25th.—Left the wharf with Portuguese and Rockhead buoys on board, but

found too much sea on outside for working at them.

July 26th.—Changed the Mars Rock buoy and raised and examined the moorings. July 29th.—Raised and examined the moorings of automatic buoy, and changed the buoy, placing the one recently received; renewed 15 fathoms of chain of the Rockhead buoy moorings, and changed the buoy.

July 30th.—At 8.30 a.m., left the wharf with spar buoys for Sambro' Harbour; placed the buoys as follows: Three in the Inner Harbour, two on the west side of Cronie Reef, one off the S.E. extreme of Connor's Reef, and one to the southward of

Crowley Rock; 8, arrived at the wharf, Halifax.

August 1st.—Took on board lighthouse oil and stores for stations on the S.E. coast of Cape Breton and Gulf of St. Lawrence.

August 2nd.—Storm from S.E.

August 3rd.—Taking on board lighthouse stores.

August 5th.—Thick fog a.m. with drizzle; at 4.30 p.m., left the wharf and proceeded to anchorage below George Island.

August 6th and 7th.—Blowing from eastward; thick fog outside.

August 8th.—Weather clearing at daylight; left for the eastward; fresh breeze

from S.W.; 11 a.m., off Cape Canso.

August 9th.—At 1.50 a.m., anchored off Cape La Ronde in eight fathoms; at daylight landed supplies at the light; 8 a.m., proceeded to Ouetique Island and landed supplies; 3.10, left the Lennox Passage and supplied lights at Petit de Grat, Marache Point, Jerseyman Island, and Creighton's Head; anchored in Arichat Harbour for the night.

August 10th.—Thick fog in the morning; at 7 a.m., proceeded for the Straits of Canso, and supplied during the day the lights at Sand Point, Point Tupper, Cape Jack, Pomquet and Cape George; also landed at Havre Bouche to enable Lighthouse Superintendent to select a site for a light; remained at anchor under Cape George for the night.

August 11th.—Left Cape George at 5.30 a.m., and proceeded to the westward;

at 7.30 p.m., anchored in Pugwash Harbour.

August 12th.—At 5 a.m., landed supplies at the light; 7, left for the westward; 9.30, supplied Mullen Point; 1 p.m., supplied Amet Island; 5.30, landed supplies at Carabou; 8.20, landed supplies at Pictou Island; 11,15, anchored in Pictou Harbour.

August 13th.—At 7 a.m., went alongside the Vale Colliery wharf and commenced

coaling.

August 14th.—At a.m. taking in coal. 4 p.m., left Pictou, and proceeded to the

east for Straits of Canso.

August 15th.—At 2 a.m., passing through the Straits. A fog setting in from the eastward, anchored in Pirate Cove. 10.30. weather clearing, proceeded to the east. 2.15 p.m., anchored off Cranberry Island, and commenced landing coal. 6.20, anchored in Cape Canso Harbour for the night. Engaged laborers to assist in coaling.

August 16th.—At 5.45 a.m., proceeded to Cranberry and landed coal. 6.30

p.m., went into harbour for the night.

August 17th.—At 5.50 a.m., went to Cranberry Island and landed coal. At 1.15 left Cranberry Island and proceeded to the southward for Halifax. 3 p.m., a dense fog, which continued all night; heavy swell from the southward.

August 18th.—At 8 a.m., the fog lifting, sighted Egg Island, bearing N. W. by

1.30 p.m., arrived at the wharf Halifax.

August 19th.—Landed returned lighthouse stores.

August 20th.—Crew employed fitting moorings for outer Automatic buoy.

August 21st.—Crew preparing moorings for buoy.

August 22nd.—Took Superintendant of Lighthouses to Sambro, and landed oil

and stores for the lighthouse and fog-whistle.

August 23rd.—The inner automatic buoy having been thoroughly overhauled and painted, left the wharf at noon, and placed it in position; brought in the buoy

placed temporarily.

August 24th.—At 7 a.m. left the wharf with oil and stores for Chebucto Head Light. At noon returned to the wharf. At 2 p.m, the Agent and Capts in Scott on board, proceeded down the harbour, and to the S.E. to select position for outer automatic buoy. 5, marked the position with a temporary buoy, and lay to, waiting for the lights to be lighted. 7, took sextant angles from marked position. 10, arrived at the wharf.

August 26th.—Crew fitting buoy moorings.

August 27th.—At 7.30 a.m., left for Sambro with a schooner in tow, loaded with coal. 10, warped schooner into the Cove, and commenced coaling. 6 p.m., took schooner in tow and proceeded into Halifax Harbour. 9, arrived at the wharf.

August 28th.—Transferred balance of coal from the schooner to this vessel.

August 29th.—At 9 a.m., left the wharf with buoys on board. Raised the Thrumcap moorings and found them in good order; changed the buoy. Afterwards raised Portuguese moorings; renewed 15 fathoms of the chain and changed the buoy. 5.30 p m., moored at the wharf.

August 30th.—Crew employed getting the buoys recently brought in, on the

wharf.

August 31st.—Crew employed about buoy moorings.

September 3rd.—Crew filling coal for Sambro'.

September 5th.—Left the wharf at 10 a.m., proceeded to Sambro and placed spar buoy off the Pollock Shoal; afterwards went into Pennant Harbour, and made enquiries about the buoy petitioned for at that place. 4.30 p.m., communicated with Sambro' Island. 7.30 arrived at the wharf.

September 6th.—At 8 a.m., proceeded to Sambro Island, and landed coal. 8.30 p.m. returned to the wharf.

September 7th.—Took on board lighthouse oil.

September 9th.—At 11.30 a.m., left the wharf, and proceeded down the harbour with outer automatic buoy on board. 3.30 p.m., placed the buoy in position; weighed the moorings of temporary buoy and returned to the wharf.

September 10th.—At a.m. took on board lighthouse stores for eastern Stations. 2.30 p.m., left the wharf and proceeded to Pennant Harbour. 6, placed a red can buoy off the Broad Shoal, Pennant Point. 7, landed an Engineer at Sambro' Island. 7.30, proceeded to the eastward for Cape Canso.

September 11th. - Arrived at Cranberry Island, and supplied the light at 1 p.m. 4.30, supplied Cutters Island. At 6, proceeded to Whitehaven, and anchored there

at 9.15.

September 12th.—Early morning foggy. At 9 a.m. landed stores at Whitehead Light and afterwards proceeded to the westward. 2.20 p.m., supplied Tor Bay

Light. 7.40 anchored in Isaac Harbour. Heavy swell from the southward all day. September 13th.—Thick fog until 11.30 a.m. Landed supplies for the harbour light. 11.50, left the harbour for Green Island and landed supplies. 4.40, proceeded to the eastward, and at 9 anchored in Liscomb Harbour. Heavy sea heaving in

from the southward all day.

September 14th.—Landed supplies at Liscomb Light at 6 a.m., and afterwards proceeded to the westward. 0.25, anchored inside Beaver Island and supplied the light. 4.45, weather thick with rain squalls from the S.W., went into Beaver Harbour and anchored.

September 15th.—At 4 a.m. proceeded out of Beaver Harbour, and to the westward. 8, landed supplies at Pope's Harbour. Heavy swells from the S.W. 2, passed inside Egg Island. 7.30, arrived at the wharf, Halifax.

September 16th.—Landed returned lighthouse stores.

September 17th.—At 10.20 a.m., left the wharf and proceeded down the harbour with buoy for the Bell Rock. At noon changed the buoy and renewed 15 fathoms of mooring chain. 4.30, stopped off Meagher's Beach and took on board empty oil casks. 5.15, arrived at the wharf.

September 18th.—Employed taking in and stowing ballast.

September 19th.—Taking in ballast.

September 20th.—The total quantity of ballast taken on board to give vessel

a greater hold in the water—19½ tons of pig iron.

September 21st.—At 9 a.m. proceeded to the Queen's Wharf and took on board a party of artillerymen and stores for the Signal Station at Sambro' and Camperdown. 10, proceeded down the harbour. Landed the party for Camperdown in Finding it too thick, and there being a heavy sea on Portuguese Cove. outside Chebucto Head, did not go to Sambro'. 2.30 p.m., arrived at the Wharf, Halifax

September 23rd.—At 9 a.m. left for Sambro with party of Royal Artillerymen for the Signal Station. At noon proceeded into harbour, changed the Horse Shoe Buoy. 4. p.m. arrived at the wharf.

September 24th.-Left the wharf at 9 am., and changed the buoys at Point Pleasant and Lichfield Shoals. Found the moorings in both places to be in good

order. 3 p.m. moored at the wharf.

September 25th.—Went outside the harbour with the Sister's Bell buoy. Found too much sea on to work. Returned into harbour. Landed supplies at Meagher's Beach.

September 26th.—At 9 a.m. proceeded down the harbour with the Sister's Bell Bucy. Changed the bucy and renewed 15 fathoms of the mooring chain. 3.30 p.m. landed stores at Chebucto Head Lighthouse. 5, moored to the wharf.

September 27th.—Took on board oil at the Depot for the western lighthouses. September 28th.—Employed taking on board stores for the western lights.

September 30th.—At 8.55 a.m., left Halifax for the westward. 2 p.m., supplied the light at Queen's Island, St Margaret's Bay. 4, landed supplies at East Iron-

bound. 7, anchored in Lunenburg Harbour.

October 1st.—Dense fog till 7 a.m. At 7 landed supplies at Battery Point. 9, left Lunenburg for the westward. 1.15 p.m., landed building material and stores at Coffin Island. Received a telegram from the Agent at Halifax saying that the bell buoy had disappeared from the Brazil Rock. Supplied the lights at Fort Point and Brooklyn Breakwater. 6, proceeded to the westward.

October 2nd.—1.10 a.m., anchored inside the N.E. Bluff, Shelburne Harbour. 6, left Shelburne and proceeded to the westward, after communicating with the keeper of the Shelburne Lighthouse and making enquiries about the bell buoy missing from Brazil Rock. 9 a.m., landed at Baccaro and at 11.30 at Cape Negro to make enquiry about the buoy, also communicated with a number of fishermen along the coast. 0.30 p. m., changed the Jig Rock buoy and renewed 15 fathoms of the mooring chain. 3, stopped off the Gull Rock. Finding too much sea on for landing went into Lockeport Harbour and anchored.

October 3rd.—Dense fog all the forenoon. 2.15 p.m., proceeded to the Gull Rock and landed supplies. 6.30, anchored in Port Hebert and supplied the light.

October 4th.—At 5.30 a.m., left Port Herbert for the eastward. 8.10, supplied Port Mouton. 10.20, communicated with Coffin Island. 11.50, landed supplies at Port Medway. 1.30 p.m., placed a can-buoy to the south-westward of S.W. breaker. 3.25, supplied West Ironbound La Have. 5.40, supplied Mosher's Island. 7, anchored off Fort Point, La Have River, and landed supplies.

October 5th.—At 5.50 a.m., left La Have River. 740, landed supplies at Cross Island. 10.15, communicated with East Ironbound. Noon, supplied Peggy's Point Light. 2.20 p.m., landed supplies at Betty's Island. 6.30, arrived at the wharf at

Halifax.

October 7th.—Landed empty oil-casks and returned lighthouse stores; sent a boat to George Island with supplies.

October 8th.—Painting the ship outside.

October 9th.—At 9.30 a.m., left for Sambro, with the Agent on board. 11.40, Agent landed and inspected the fog-whistle establishment. 2.30 p.m., left Sambro' and proceeded to Devil Island; agent inspected the lighthouses; landed supplies. 6, left Devil Island. 7.30, moored to the wharf.

October 14th.—Received on board coal for Sambro'.

October 15th.—Taking coal on board.

October 16th.—At 6 a.m., left for Sambro'; landed during the day 32 ons. At 8 p.m. returned to the wharf, Halifax.

October 17th.—Weather rainy; crew filling coal-bags.

October 18th to 21st.—Weather stormy; unable to land at Sambro'.

October 22nd.—At 6 a.m., preceded to Sambro' and landed coal. 8 p.m., returned to the wharf.

October 23rd.—Left for Sambro at daylight and landed coal. 7 p.m., returned to the wharf.

November 1st.—Took on board bell buoy for Trinity Ledge; also building material for Shelburne and Cape Sable.

November 2nd.—Employed taking on board building material and moorings for

bell buoy.

November 4th.—At 11.15 a.m., left Halifax for the westward. At 8 p.m. the weather looking threatening, put into Liverpool and anchored inside the breakwater. Heavy squalls from the N.W. with snow.

November 5th.—At 4.20 a.m., proceeded out of Liverpool Bay and to the westward. 11.30, anchored off Shelburne Lighthouse, and commenced to land building material for an oil store. 4, went into harbour and anchored inside Sand Point; squally, with occasional snow.

November 6th.—At 5.30 a m., left Shelburne and proceeded to the westward for Cape Sable. 11.15, anchored off Cape Sable and landed building material for a coal

store. 6.30 pm., proceeded into Barrington Harbour and anchored inside the

Lightship.

November 7th.—At 6.35 a.m., left Barrington, proceeding through the Pass. 9.15, stopped off St. John's Ledge buoy; found it too far to southward; marked a position for the buoy in 12½ fathoms water; Pubnico Lighthouse open of St. John's Island N.E. by N. Spire of the meeting house over the dry ledge E.½ N. 10.15, commenced to unshackle; found great difficulty in weighing the moorings. 4 p.m., recovered the anchor, it being in a very foul state. 6,10, placed the buoy in position. 7, anchored in Pubnico Harbour; showers of rain and snow.

November 8th.—Weather stormy in the morning; at 8.55 a.m., left Pubnico and proceeded to the northward, passing inside Gannet Rock and Green Island;

2.15 p.m., anchored inside the Beacon Light, Yarmouth; squally with snow.

November 9th.—Blowing strong from the westward with occasional snow.

November 10th.—Gale from the N.W.

November 11th and 12th.—Detained at Yarmouth; blowing fresh from the

westward and S.W.

November 13th.—Left Yarmouth at 6 a.m. for the northward; found too much sea on to work at the Trinity Ledge buoy; 11, passed through the Grand Passage and proceeded to the N.W. Ledge; noon, finding too much sea on to work at the buoy, returned to the Grand Passage and anchored off Westport; in the evening experienced very heavy squalls from W.N.W.

November 14th.—Detained at Westport; blowing strong from N.W.

November 15th.—Wind falling light, weighed and proceeded to the N.W. Ledge; 0.45 p.m., made fast to the buoy; found moorings to be foul of the bottom; at sunset still unable to raise the moorings; shackled on the buoy, and proceeded to the

Grand Passage for the night.

November 16th.—At daylight proceeded to N.W. Ledge; unshackled the buoy and hove on the moorings, using a six inch hawser with a purchase on it brought to the winch; water smooth and favourable for working; finding that the moorings were foul of the bottom shackled on an additional ten fathoms of chain, and replaced the buoy; 9.25, left for the Trinity Ledge; 1 p.m., made fast to the Trinity buoy; raised and examined the moorings and found them in good order; changed the buoy; 5.45, anchored in Yarmouth Harbour.

November 17th.—Squally from the eastward with rain during the forenoon; at 1.35 p.m., left Yarmouth, passed inside of Green Island and between Bald Tusket and the Mud Islands; at 7 p.m., rounded Cape Sable; at midnight, anchored inside Sand

Point, Shelburne Harbour.

November 18th.—At daylight, left Shelburne and proceeded to the eastward; 10.45, passed Little Hope Island; 4 p.m., the weather looking threatening and the wind freshening from S.E., bore up for Lunenburg; 5.50, anchored in Lunenburg Harbour.

November 19th.—Detained at Lunenburg; blowing from S.E. and backing to

N.E. with heavy rain.

November 20th.—Left Lunenburg at daylight and proceeded to the eastward; passed inside East Ironbound Island; found very heavy sea on outside; at 2.30 p.m. moored to the wharf at Halifax.

# BUOYS AND BEACONS.

The following is a List of the Buoys and Beacons under charge of this Agency.

## HALIFAX HARBOUR AND APPROACHES.

No.	Where Located.	Description.	Colour.
1 2 3 4 5 6 7 8 9 10 11 12 13	Dartmouth Spit.  Ives Knoll.  Point Pleasant.  Leopard  Belle Isle Spit.  Reid's Rock.  Horse Shoe Shoal.  Mar's Rock.  Litchfield  Bell Rock.	do	do  Red.  White and black
14	Portuguese	Composite can	(vertical.)  White and red   (horizontal.)
15		Viron, with 10-inch whistle, N.E. ½ E., about 2 miles from Chebucto Head in fair way	Red.
16	do do	Iron, with 10-inch whistle, in fair way, S. by E. about 7 miles from Devil's Island	Black.
18	Sisters, off Sambro South-West Breaker, Sambro Pollock, Sambro Ledges	Iron bell buoy with cage	do do do Red.

#### SAMBRO HARBOUR.

22 23 24 25 26	Crowley Reef	Spar do do do do do do do do do do do do do	Red and black. Black. do Red. Black.
26	Grav's Point	do	Black.

### PENNANT HARBOUR.

28	Broad	Shoal	*********************	Ir	ron	Can	Red.	
----	-------	-------	-----------------------	----	-----	-----	------	--

#### CHESTER.

29	Coachman's	Shoal,	E.	End	Spar	 Black.
30	do	do	W.	End	do	Red.

# LIST of Buoys and Beacons-Continued.

### MAHONE BAY.

		MAHONE BAI.	
No.	Where Located.	Description.	Colour.
35 36 37	Keddey's Shoal Gull Ledge Covey's Le lge Ernst Shoal Westhaver's Island Strum Shoai, W. End do E. End Middle Shoal	Spar	Black. Red. do do Black.
		LUNENBURG.	
41   42	do N.W. End Head Shoel	Iron can	Red.
		LA HAVE.	
46	Big Shoal Little Shoal Bull Shoal	Spardo	Red.
		PORT MEDWAY.	
50 51 52 53	Breaking Ledge	Spar	Red. Black. Red. Black. Red.
	Vol	ER'S COVE CHANNEL.	**************************************
96 []	Breaking Ledge, N. E. Point Manthorn Rock Sculpin Rock Shoal	Spar	do
		LIVERPOOL.	

.....Black.

58 Fort Point Ledge ...... Spar......

# List of Buoys and Beacons—Continued.

### SHELBURNE.

No.	Where Located.	Description.	Colour.
60 61	Sand Point	Iron cando do Spar	Black.

#### PORT LA TOUR.

<b>6</b> 5 66 67 68	Shark Rock	Iron spindle	Black. Red and black. Black. Red and black.

## PORT NEGRO.

73   Grog Rock	73 74 75 76	Grog Rock John's Point Ledge Peck's Hat Seal Ledge	dodo	do do do do
----------------	----------------------	----------------------------------------------------	------	----------------------

### BARRINGTON PASSAGE.

	l		1
78	Eastern Flat	Wooden car	Red.
		Iron can	
		Spar	
81	Beach Point	do	Red.
82	Danger Rock	do	do
83	Long Reef, N. end	do	Black.
84	do S. end	do	Red.
85	Lone Rock	, do	Black.
86	Island Channel	do	Red.
87	Angle Ledge	Wooden can	do
88	Carpenter's Rock	Spar	do
89	Privateer Ledge	do	do
		do	
91	Coot Point Ledge	do	Black.
		do	
93	do do W		
94		do	do
95	Pease's Island	do	do

# LIST of Buoys and Beacons-Continued.

# WOOD'S HARBOUR.

No.	Where Located.	Description.	Colour,
96 97 98 99 100	Shoal below Dry Ledges	Spar	Red. Black. Red. Black. Red. Black.

## LOCKPORT.

102	Middle Ground	Iron csn	Red.
103	Carters' Island Shoal	Spar	do

### CLARKE'S HARBOUR.

04	Congé	Spar do	Red.
05	Crowell Ledge	do	Black.
06	Simms Rock	do	do
07	Flat Island Ledge	do	Red.
08	Middle Channel	do	do
Q0	Rleager's Taland	! do	Black.
10	Hospital Ledge	do	Red.
11	Seal Rocks Ledge	do	do
12	do W end	do	Black.
13	Scale Point Ledge	do	do
	Could I did Dougo mining		

## TUSKET RIVER.

115	Spar	do do Red. Black. do Red. do
118 Tooker's Island Shoal	do	Black.
119 Uontreau's Shoal	do	Ded
121 Corporas Core N. W.	do	do.
122 do N	do	do
123 Birch Island Shoal	do	Black.
124 Boucher's Shoal.	do	Red.
125 Boudreau's Shoal	do	Black.
126 Big Ledge	do	Red.
127 Simm's Shoal	do	Black.
128 Maple Island Shoal	do	Kea.
Narrows Ledge Shoal	do	BIRCK.

# List of Buoys and Beacons—Continued.

### YARMOUTH COUNTY.

No.	Where Located.	Description.	Colour.
132	Harbour Ledge	do with cage	do do Black

# D. GBY AND ANNAPOLIS.

		•	
-136	Fanning's Ledge	Spar	Red.
137	Bear Island Bar	[ron can.	Black.
138	Broad Cove. W. side	Spar	do
1.39	Black Point	Wooden can	do
140	Goat Island Shoal, N. end	do Spar	Red.
141	West Shoal, Goat Island	Spar	do
142	Flats, a mile above Winchester		1
	I Harp	do	Black.
143	Bear River	do	do
144	Victoria Bridge, above	dodo	Red.
145	do below	do	do
146	Joggin's Bridge, above	do	do
147	do below	do	do
			1

### AVON RIVER.

148	Cross Bars (fair way)	Iron can	Red and black.
149	Kast Cross Rer	Snar	Ked.
150	West side East Bar	do	Black.
151	East side West Bar	do	Red.
152	Stoney Bar	dodo	do
153	South end East Bar	do	Black.
154	Spit Bar	do	do
155	Blonde Rock, off Seal Island	do	do
156	Trinity Ledge, St. Mary's Bay	Iron bell buoy, with cage	Red.
		1	·

## POPE'S HARBOUR.

157	Harbor Island Shoal	Spar	Red.
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# LIST of Buoys and Beacons—Continued.

#### CANSO.

No.	Where Located.	Description.	Colour.
150	Crimos Shool	Iron hall buow and came	Black.
158 159	Grimes Shoal	Iron bell buoy and cage Spar	
	Slipper Rock		Red.
	Kelp Shoal	do	
162	Glasgow Bar	do	do
163 164	Petit Pass Bar Bootes Rock	dodo	
165	Mackerel Rock	do	do
166	Middle Ground Rock		Black.
167	Hart's Island Point	do	do
168	Sterling Rock, S	do	Red.
169	do W	! do	do
170 171	Bald Rock		do Red and black
172	Whitman Rock	do	
173	Harbour Shoal		
174	Indian Shoal	1 do	
175	False Passage, W	do	
176 177		do	do
178	Net Rock		'Red.  Red and black.
179	Roaring Bull Rock	do	Black.
180	Foot's Rock	do	Red.
		GUYSBORO'	
181	Gull Island Shoal	Spar	Red.
	I	PORT HAWKESBURY.	
182	Premier Shoal	Spar	Red and black.
		MERRIGOMISHE.	
183 184 185	Centre of channel	Spardo	Red and black. do do
_		PICTOU.	
186 187 188	Logan's Point Doctor's Reef Middle Shoal	Wooden cando do	Red. do Black and red.

# List of Buoys and Beacons-Continued.

## ST. MARY'S RIVER.

No.	Where Located.	Description.	Colour.
189 190 191 192	Middle Ground	Spar	Black. Red. Black. Red.

### WALLACE.

193 194					
195 196	do	***************************************	, do	***************************************	do do
100	40	***************************************	40		uo

### PUGWASH.

198 199 200 201 202	do (starboard) Middle Ground Bar Fox Point Shoal Pineo's Point Pugwash Reef	do	Red. do do Black.
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#### PORT HOOD.

206   Spit Head   Smyth's Spit, S.W.   207   do S.E.   208   Dean Shoal   208   Spit Spit Spit Spit Spit Spit Spit Spit	Spherical iron can Iron can do do do do do	do Red. do do
-------------------------------------------------------------------------------------------------------------------------	--------------------------------------------	------------------------

#### CHETICAMP.

210	Channel	(starboard)	Six spars	Red.
211	do	(port)	do	Black.
	1			

#### BIG BRAS D'OR.

212	Carey's Shoal	Span	C	Red.
215	Lime Rock Shoal	do	***************************************	Black.

# LIST of Buoys and Beacons-Continued.

### BADDECK.

No.	Where Located.	Description.	Colour.
217	Bell Rock McIvor's Shoal McAskill's Shoal McLeod's Shoal	Spar do	Red. do do do

#### NORTH SYDNEY.

220 North Bar	Iron can	Red.
221 Cann's Shoal	do	do
Petrie Shoal	do	do
, <b>j</b>		1

### LOUISBURG.

220	White Rock Shoal	l do	 do
		l	

#### PETIT DE GRAT.

227 Big Arrow Island	Wooden can	Red.

#### ARICHAT

Yankee Shoal         do         do           Bound Shoal         do         do           Robin Shoal         do         do	Kavanagh's ShoalLesure Shoal	Iron can	do do
La Poule Shoal do Black. Union Shoal do do	Robin Shoal	do	do do Riack

### ARICHAT, WEST.

237 238 239	Creighton's Shoal	Wooden can	Red and Black. Red. Black.
238 239	Creighton's Shoal	Wooden can	Red and Black Red. Black.

# LIST of Buoys and Beacons-Continued.

#### PUBNICO BUOYS.

No.	Where Located.	Description.	Colour.
242 243 244	Lone Rock N.N.E. from Flat	Spar. do	do do do

#### SHAG HARBOUR.

246	Off Little Green Island	Spar	Red.
247	Rock, Starbord Side	. do	do
248	′ do	do	do
249	do	do	i do
250	Lone Rock	do	Red and ck.
251	Seal Rock	do	Red.
252	Nickerson's Ledge	do	Black.
253	West Point, Stodoart Island,	do	Red.
254	S.W. Point, Kendrick's Island	do	Black

#### BEACONS.

256 257 258	Guysboro, Gull Island Cape Canso, Grave Island	dodo	Red. White. do
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The two automatic signal buoys, imported from New York, and placed at the entrance to Halifax Harbour, are highly spoken of by captains entering the port, and will no doubt prove very effectual aids to navigation.

Applications have been made by Harbour Masters and others, for a large number of additional can and spar buoys, some of which will be supplied next year.

The proper buoyage of the coast and more important harbours is of primary interest, and several of the present spar buoys should be replaced by can buoys of good size.

Until within a few years, the color of the buoys followed no fixed rule, but I am glad to report that now, with very few exceptions, the one rule prevails in this Province, which is similar to that of the United States coast, viz: On starboard hand, red; port hand, black, and middle ground black and red alternate stripes.

Automatic signal buoys are moored in the fair way, and can be approached without danger.

#### FISHERIES.

On 30th June, 1878, there were 33 Overseers and 208 Wardens in charge of the various River Fisheries comprised within the limits of this Agency. The cost of 192

the protection of those fisheries during the past year, amounted to \$15,292.82, and full details of the state of the various rivers and streams will be found in the reports of the Fishery Officers addressed to W. F. Whitcher, Esq., Commissioner of Fisheries.

For fish breeding during the fiscal year, there was expended the sum of \$3,550. The fish breeding establishment in this Province is situated at Bedford, about 10 miles from Halifax, on the Sackville River. It is under the charge of Mr. A. B. Wilmot, whose efficient management has made it very successful in carrying out the objects for which it was established. Last spring the following young fish were distributed:—1,400,000 salmon, 160,000 whitefish, 8,000 salmon trout, making a total of 1,568,000 fish distributed among thirty-six rivers and four lakes, in the Counties of Halifax, Hants, Kings, Annapolis, Cumberland, Cogchester and Pictou.

In three years there has been a grand total of three millions of the fry hatched in the Bedford House, which Mr. Wilmot informs me is nearly double the quantity

hatched by any other house in the Dominion in its first five years.

I have the honor to be, Sir,

Your obedient servant,

H. W. JOHNSON,

Agent.

# APPENDIX No. 7.

STATEMENT of Expenditure on account of Maintenance of Lights above Montreal, for the Fiscal Year ended 30th June, 1878.

			1	1	
	Bar Point Lightship.	\$	cts.	\$	cts
Hugh Mansondo	12 months' salary as Light-keeper \$496 25 do superannuation tax 3 75	500	00		
Steamer "Minnie Morton"	Paid for rope, hardware and labour Towing Lightship to Amherstburg	39	10		
do do	Placing Lightship	40	00		
J. E. Kolfage F. Wetmore	Boat, &c	4	00		
A. Hackett	Allowance for services to Lightship in 1875	20	00 00 05		
Kevill & Co	Burners, &c	25	00		
	Batchewana Bay.			855	65
David Crawford	12 months' salary as Light-keeper \$345 63				
do	do superannuation tax	350 26	00		
neceiver General			-	376	<b>4</b> 0
	Battle Island.		-		
Charles McKay do	103 months' salary as Keeper	441			
Andrew Dick	Taking charge of Lighthouse property, from 2nd to 27th August, 26 days, at \$1.25 per day	441 32	50		
Plummer & Marks J. D. Beatty			00 50	502	4F
	Beauharnois.			020	
Joseph Melochedo	12 months' salary as Light-keeper \$222 19 do superannuation tax 2 81				
	Painting Light	225 19	00	244	10
	Bois Blanc.			444	10
A. Hackettdo	12 months' salary as Light-keeper \$829 56 do superannuation tax 5 44				
	Land and right of way for two towers on the	835	ı		
S. S. Macdonnell	Island Legal expenses in re site	700 15	05	1,550	05
	Carried forward	********		3,549	

	Brought forward	\$ cts.	\$ cts. 3,549 70
	Brown's or Knapp's Point.		,
M. Brophy W. McRossie W. H. Smithers	12 months' salary as Light-keeper  Award for land  Lumber, lath and scantling Labour and repairs to Lighthouse.  Costs of arbitration in re award for land	100 00 200 00 18 15 10 50 60 00	388 <b>6</b> 5
	Burlington Beach.		
do do	12 months' salary as Light-keeper	300 00 66 28 21 75 9 00	397 03
	Burnt Island.	:	
Widow of J. Mervin C. Turcotte	9 months' salary as Light-keeper \$185 16	187 50 10 41 62 50 25 00 38 78 12 00 1 50 5 00	342 69
	Byng Inlet.  12 months' attending Light	250 00 22 50	272 50
	Campbell Island.		
do  do  E. Derenzy Canada Central Railway	Paid for repairs	150 00 16 97 9 52 3 00	179 49
	Chantry Island.	İ	
D. M. G. Lambertdo	12 months' salary as Light-keeper \$503 75 do superannuation tax	510 00	
do	do superannuation tax 2 19	175 00	695 00
	Carried for ward		5,815 06

		6 -4-	<b>6</b>
	Brought forward	\$ cts.	\$ cts 5,815 06
	Cherry Island.		
E. S. Johnsondo	12 months' salary as Light-keeper \$441 69 do superannuation tax 5 31	447 00	
▲lexander Murray	Repairing stoves, painting, &c	21 00	468
	Christian Island.		•••
do	12 months' salary as Light-keeper \$429 69 do superannuation tax 5 31	435 00	
			435 00
	Clapperton Island.		
do	12 months' salary as Light-keeper \$345 62 do superannuation tax 4 38	350 00	
do	Paid for boat, &c	70 00	420 00
	Cole Shoal.		
Richard Elliottdo	12 months' salary as Light-keeper \$246 88 do superannuation tax 3 12	270.00	
fanhard & Booth	Cedar, fence boards, &c	250 00 7 66 3 00 1 58	2 <b>62 24</b>
	Collingwood.		202 21
do	12 months' salary as Light-keeper	200 00 120 00 69 78 224 50 20 90	
i. M. Clelland	Wall-paper	142 80 3 50	780 58
	Coteau Landing.		
I. B. Prieur	12 months' salary as Light-keeper		140 00
	Deep River Island.		
	12 months' salary as Light-keeper	100 00 4 <b>9</b> 9	104 99
Ì	False Ducks.		
Swetman do	12 months' salary as Light-keeper \$429 69 do superannustion tax 5 31		
eRoy Spafford	Wicks, paint, oil, etc	435 00	439 37
	Carried forward	· [-	8,865 24

	Brought forward	\$ cts.	\$ cts 8,865 24
	Fort William Range Lights.		5,550 2
D. Morrison do	12 months' salary as Light-keeper \$154 29 do superannuation tax 1 41		155 70
	French River.		100 1
Edward Borron, jun	12 months's alary as Light-keeper \$493 75 do superannuation tax 6 25		
H. M. Clelland	50 lbs white lead	500 0 <del>0</del> 4 50	50 <b>4</b> 50
	Frenchman's Bay.		
James McLellan	12 months' salary as Light-keeper		100 0
	Gananoque Narrows.	!	
Gornelius Cookdo	12 months' salary as Light-keeper \$395 00 do superannuation tax 5 00	400 00	
F. McDougall	Hoops, bolts, and repairs	9 00	409 06
	Gin Rock.		100 00
srael Mundydo	12 months' salary as Light-keeper \$296 25	200.00	
do	Allowance for boat hire	300 00 10 00	814.00
			310 00
	Gibraltar Point.		
Geo. Durnando	12 months' salary as Light-keeper \$529 69 do superannuation tax 5 31		53 <b>5 0</b> 0
	Glengarry or Stonehouse Point.	1	
enneth McLachlan do	12 months salary as Light-keeper	200 00	
. M. & A. McDonald Laplante	Land taken for Lighthouse purposes	600 00 17 50	81 <b>7 5</b> 0
		,	011 00
	Goderich Light.		
do	12 months' salary as Light-keeper \$395 00 do superannuation tax 5 00	400 00	
do	To pay for labour, timber, hardware, etc., for	2,482 97	
do	repairing breakwater damaged during the storm Labour materials placing gallery round Light-	113 41	
do	house, freight, etc	50 00	
· O'Meara.	Stone for breakwater	59 60	
· 1	\$99.00	162 50 10 00	
. AcKenzie	Glass, putty, hoops, etc	3 14	3,281 62
1	Carried forward	-	14,978 56
I	Carried forward 197	******	22,000

	Provent forward	\$ cts.	\$ cts.
	Brought forward		14.978 56
	Great Duck Island.	1	
do	12 months' Salary as Light-keeper \$493 75 do Superannuation tax 6 25		
William Hearn	Marine-glass	500 00	512 00
	Grenadier Island.		
Albert Root do	12 months' salary as Light-keeper \$246 88 do superannuation tax 3 12	250 00	
John Naltry	Boat, &c	65 00	315 00
	Green Shoal.	-	
Alfred Labergedo	12 months' salary as Light-keeper \$247 00 do superannuation tax 3 00	250 00	
dodo	Repairs to breakwater	686 31 56 52	
lewis Ploof	Cartage Freight of supplies	2 00 4 00	<b>99</b> 8 83
	Griffith Island.		
Vesey C. Hilldo	12 months' salary as Light-keeper \$129 69 do superannuation tax 5 31	435 00	
Donald McKenzie	1 wheelbarrow	5 00	440 00
	Grosse Point.		
Wm. Shannondo	12 months' salary as Light-keeper \$429\( \frac{1}{2}69 \) do superannuation tax 5 31	435 00	
Geo. Shannon do	do salary as Assistant	175 00	
Lewis Sicotte	Making and replacing buoys.	23 00	<b>6</b> 33 00
	Guil Island.	1	
Robert Roddick do	12 months' salary as Light-keeper \$493 75 do superannuation tax 6 25	500 00	
dodo	Boat and repairs	63 50 40 00	
Wm Stephenson E. Chanteloup	Repairing lamps	5 75 21 00 200 00	ana si
	Hamilton's Island.		<b>8</b> 30 2l
John Hamilton do	Paid for paint, nails and labour repairing	120 00 46 00	166
	1		

STATEMENT of Expenditure on account of Maintenance of Lights above Montreal, etc.—Continued.

	·	·	
	Brought forward,	\$ cts.	\$ cts. 18,873 64
	Head of Deschene Rapids.	ļ	
м. Murphydo	12 months' salary as Light-keeper	100 00 12 65	112 65
	Isle of Coves.		
B. B. Willerdo	12 months' salary as Light-keeper \$540 21 do superannuation tax 11 03	551 24	
George Currie do	3 do salary as Light-keeper \$159 25 do superannuation tax 3 25	162 50	
B. B. Miller	Rope, sails, block, &c	3 05	716 79
	Killarney Light.		
Philemon Prouledo	12 months' salary as Light-keeper \$493 75 do superannuation tax 6 25	500 00	
N. McLean	Plastering and building kitchen Painting cupola	60 00 11 00	571 00
	Kincardine.		
\$17:11:*TF			
do	12 months' salary as Light-keeper \$158 00 do superannuation tax 2 00	160 00	
do	Paid for assistance in manning life-boat going to the Lighthouse	18 70 14 49	
F. Flett	Boat Stove and fittings	35 00 15 00	<b>24</b> 3 19
	Lachine Pier and Lake St. Louis Lightship, No.'1.	,	
John Nortondo	12 months' salary as Light-keeper \$444 37 do superannuation tax 5 63		
Capt. E. Monarque	Placing Lightship in winter quarters Paid for 5 toise of stone for pier	450 00   52 00   60 00	
T. Chapman	Use of steamer grappling for chains	50 00	656 30
	Lake St. Louis Lightship No. 2.		
O. Madoredo	12 months' salary as Light-keeper \$296 25 do superannuation tax 3 75	300 00	
40	Placing in winter quarters	52 00   50 00   70 00	
Chapman	Blacksmith's repairs	45 00	517 00
	Carried forward		21,690 57

	Brought forward		\$ cts.	\$ cts. 21,690 57
	Lake St. Louis Lightship No. 3.	1		•
Olivier Veaudrydo	12 months' salary as Light-keeper do superannuation tax	\$296 25 3 75	200.00	
do	Placing in winter quarters	· · · · · · · · · · · · · · · · · · ·	300 00   52 00   50 00   70 00   45 00	517 00
	Lamb Island.			
John Michaelson	12 months' salary as Light-keeper do superannuation tax	\$296 25 3 75		300 00
	Lancaster Bar.			
G. H. Johnsondo	12 months' salary as Light-keeper do superannuation tax	\$321 88 3 12		325 00
•	Lancaster Pier.		 	
Chomas Hy, Hill do	12 months' salary as Light-keeper do superannuation tax	\$296 25 3 75		300 00
	Lindoe Island,			
John Wallace do	12 months' salary as Light-keeper do superannuation tax	\$246 88 3 12		
do	Repairs to dwelling		250 00 57 55	397 55
	Little Current.			
O. McKenzie do	12 months' salary as Light-keeper do superannuation tax	\$345 63 4 <b>3</b> 7		350 00
	Lonely Island.			
Dominic Solomondo	12 months' salary as Light-keeper do superannuation tax	\$444 37 5 63		450 00
	Long Point.			
H. H. Woodwarddo	12 months' salary as Light-keeper do superannuation tax	\$429 69 5 31		<b>435 0</b> 0
	L'Oigna $l$ .	-		
	12 months' salary as Light-keeper		100 0 <del>0</del> 17 50	117 50

	<u>'</u>		
	Brought forward	\$ cts.	\$ cts. 24,792 62
	Manitoulin Island.		
John Millerdo	3 months' salary as Light-keeper	200.00	
William Cullisdo	9 months' salary as Light-keeper	300 00	
	McKie's Point.		400 00
A. McDonald	12 months' salary as Light-keeper \$172 81 do superannuation tax 2 19		
	Cast-iron lantern, burners, copper-flues and chim-	175 00	
•	neys	422 16 14 18	611 34
	McKillop's Point.	İ	
M. Graburn	12 months' salary as Light-keeper Travelling expenses	103 75 9 20	
ı	Painting Lighthouse and lantern, making ladder and glazing	11 00 6 25	130 20°
	McTavish Point, Port Louis,		150 20
Joseph Geegan	12 months' salary as Light-keeper Paid for cartage, wharfage, &c	100 00 6 10	106 1 <b>0</b> -
	Meaford Light.		
Samuel Dutcher	12 months' salary as Light-keeper		75 00
	Michael's Point.		
R. A. Lyon & Co 1	12 months' salary as acting Light-keeper		250 00
ĺ	Michipicoten Island.		
Peter McIntyre	12 months' salary as Light-keeper	635 00	
H. M. Clelland	Putting down and taking up buoys	20 00	656 <b>*</b> 75
	Middle Island.		
S. Brown	2 months' salary as Light-keeper	100 00 92 33	192 <b>73</b> 3
	Mohawk Island.		23460
R. H. Smithers1	2 months' salary as Light-keeper \$405 00 do superannuation tax 5 00	470.00	
do F	Paid for oil tank, &c	410 00 2 80	412 86
	Carried forward		27,627 14

	Brought forward	\$ ets.	\$ cts. 27,627 14
	Muskoka or Fox Island.		
J. C. Darkedo	12 months' salary as Light-keeper \$246 88 do superannuation tax 3 12	250 00	
do	Paid for wire cloth, turpentine, cartage, lime, labour, &c	20 33	<b>270 3</b> 3
	Nine Mile Point.		
Albert Dunlopdo	12 months' salary as Light-keeper		400 00
	Nottawasaga Island.		
George Collins	12 months' salary as Light-keeper \$588 00 do superannuation as 12 00	600 00	
dodo	Building boat-house	100 00	
D. Robson	Advertising in Collingwood Bulletin erection of breakwater	3 00	<b>753</b> 75
	Oakville Pier.		
R. K. Chisholmdo	12 months' salary as Light-keeper \$197 50 do superannuation tax 2 50	200 00	
do	Repairs, paint and painting Lighthouse and oil-	55 30	255 30
	Owen Sound.		
John Mackenzie	12 months' salary as Light-keeper		100 00
	Parry Sound.	Ī	
William McGowndo	12 months' salary as Light-keeper \$296 25 do superannation tax 3 75		300 00
	Pelée Island.		
James Cummins do	12 months' salary as Light-keeper \$429 69 do superannuation tax 5 31	435 00	
James Edwards	Paid for labour and materials furnished repairing Lighthouse	292 69	<b>727</b> 69
	<b>D</b>		
	Penetanguishene.	ı t	
Peter Kilranedo	12 months' salary as Light-keeper \$148 13   do superannuation tax 1 87		150 00

	Drawaha farrand	\$ ets.	\$ cts
	Brought forward  Pigeon Island.		30,584 21
Ambrose Davis	nonths' salary as Light-keeper do do	225 00 75 00	300 00
	Point aux Anglais.		
Edmond Charlebois 12 m	do superannuation tax		
E. Chanteloup Plate	ght and wharfage of supplies e-glass and wicks e, paint, boat, &c	200 00 1 04 72 19 98 82	372 08
i	Point aux Pins.		312 90
W. O. Foote	onths' salary as Light-keeper \$148 13 do superannuation tax 1 87	150 00	
do Paid Joseph Cousins Surv	for wicks, burners, &c	4 35 25 00	179 35
	Point Claire Lightship No. 1.		
Moïse Leclerc 12 m	onths' salary as Light-keeper \$296 25 do superannuation tax 3 75		300 00
	Point Claire Lightship No. 2.	; ! ! !	
	onths' salary as Light-keeper \$296 25 do superannuation tax 3 75		300 00
	Point d Cadieux.		
	onths' salary as Light-keeper \$197 50 do superannuation tax 2 50	200 00	
O. J. Devlin Pain Expe	t, oil, brushes and repairs	19 85 85 80	305 65
	Point Clark.		
	onths' salary as Light-keeper \$429 69 do superannuation tax 5 31		435 00
	Point Pelée Reef.		
James Edwards	onths' salary as Light-keeper \$493 75 do superannuation tax		
J. E. Snider	00 feet of oak-timber, \$15 per 1,000 feet	500 00 285 00 68 03	853 0 <b>3</b>
i i		·	000 VD

	Brought forward	\$ ets.	\$ cts. 33,629 29
	Point Pleasant.		
John Prinyerdo	12 months' salary as Light-keeper \$296 25 do superannuation tax 3 75	300 00	
A. G. Stanton	Labour and team work	26 50 11 25 8 75 15 87 19 25 43 55 10 20 6 48 50 62	492 47
	Point Peter.		
do	12 months' salary as Light-keeper \$395 00 do superannuation tax 5 00	400 00	
John Richards	Rope, lumber, nails, and labour	79 80	479 80
Doneld Ross	Porphyry Point.  12 months' salary as Light-keeper \$395 00	3 1	
do	do superannuation tax 5 00		400 00
Alex. Sutherland	Port Burwell.  12 months' salary as Light-keeper \$222 50 do superannuation tax 2 50		225 00
	Port Colborne.		
J. W. Carmen T. McCrosson William Arnott	12 months' salary as Light-keeper	400 00 4 20 10 00 135 00 1,549 37	2,098 57
	Port Dalhousie.		
William Woodalldo	12 months' salary as Light-keeper \$296 25 do superannuation tax 3 75	300 <b>0</b> 0	
E. Chanteloup	Burners, wicks, etc	35 20	335 20
	Port Dover.	İ	
Henry Morgando	12 months' salary as Light-keeper \$256 75 do superannuation tax 3 25		260 00
	Carried forward.		37,920 33
	OM2220 202 11 M2 W1 111111111 1111111111111111111	,	,

	Brought forward	\$ cts.	\$ cts. 37,920 33
	Port Maitland.		
Fergus Schofielddo	12 months' salary as Light-keeper \$345 63 do superannuation tax		
James Nicholson	Shingles, lumber, bricks and lime	350 00 46 23	396 23
	Port Stanley.		
Charles Eaddo	12 months' salary as Light-keeper \$272 19		275 00
	Presgu Ile Main Light.		2.0
William H. Sherwood	12 months' salary as Light-keeper \$333 26 do superannuation tax 4 22	337 48	
John Mackenzie	Building oil-shed To pay T. N. Scripture for lantern, etc	50 00 10 70	398 18
	Range L.ghts and Buoys.		
G. B. Simpsondo	12 months' salary as Light-keeper 407 33 do superannuation tax 5 15	412 48	
do AndrewiHackett	Anchor and planking, to mark old channel	6 00 34 80	453 28
	River Ottawa Lights.	i	
Steamer "White Bird" St.Lawrence and Ottawa	Freight	1 75	
Railway B. Crenier Z. Allard	do Repairing tanks, flanges, piping, &c	5 30 1 50	
rare Bros.	Hardware, oil and paint	4 80	14 85
	River Thames Light.		
do		435 00	
J. & W. McKeough	Furnishing and driving 18 piles of bolting, &c Cut nails	108 00 1 60 19 20	563 80
	Rondeau Нагвоит.		<b>000</b> 00
Thomas Harrisondo	12 months' salary as Light-keeper 395 00 do superannuation tax	400 •0	
Jackson & Fuller	Boat hire and sundry repairs	99 66 100 00	
E. Chanteloup	Boat	75 00 107 68	
Chance Bros. & Co	117 cords of stone @ \$4.25 Plate glass, £26 13s stg	497 25 129 70	2,973 54
	Carried forward205		42,995 21
	440		

Rent of land for 1874-5-6-7	348 90
Rent of I and for 1874-5-6-7.   48	3 00 3 00 3 00 9 00 9 00 9 25 348 90
A. Deschamps	00
A. Deschamps       12 months' salary as acting Light-keeper       100         do       4 years' rent of land, 1874-5-6-7       24         do       Painting Lighthouse       8         St. Placide         U. Gauthier       12 months' salary as Light-keeper       100         Bertrand & Lalonde       Freight and wharfage       1         B. J. Bertrand       To pay for land       200	00
C. Gauthier	i
B. J. Bertrand Lalonde Freight and wharfage	,
i l	30
Salmon Point.	
Peter Huff	00
do         Land for Lighthouse, \$450, and expenses of survey, \$18         468           Peter Huff         Lumber and scantling         10           W. H. Allison         Drawing deed of land         14           T. Morton         Paper and wicks         3	00   60   10   95   35
Scotch Bonnet.	
Robert Pye	00
	405 73
Snake Island.	
Nathaniel T. Orr	33 25
Carried forward.	46,261 53

	Brought forward	\$ cts.	\$ cts 46,261 53
	Southampton Range.		,
Deans, Brow & Godfrey D. M. Lambert E. Chanteloup Joseph White Canadian Express Co	12 months' salary as Light-keeper	100 00 12 31 0 50 391 50 914 93 1 5 75 76 09	
	Spectacle Shoal.		1,501 0
John Buck do	12 months' salary as Light-keeper \$553 00		5 <b>6</b> 0 00
William Shepherddo	12 months' salary as Light-keeper \$321 25		
do	Building store-room and material for same	325 00 30 00	3 <b>55</b> 00
	Telegraph Island,		555 V
John Masondo	12 months' salary as Light-keeper \$197 50 do superannuation tax 2 50	200 00	
R. M. Horsey Steamer "Hastings"	Red and white lead, mammoth burners, &c	29 61 4 00	233 61
	Thunder Cape.		
Duncan McEachendo	12 months' salary as Light-keeper \$493 75 do superannuation tax 6 25		500 00
;	Victoria Island.		
Francis Levan	12 months' salary as Light-keeper		100 00
	Way Shoal.		
A. Mongeon	12 months' salary as Light-keeper		100 00
	Weller's Bay	}	
Reuben Young do	2 months' salary as Light keeper \$148 13 do supersnnuation tax 1 87		150 00
ļ	Wind Mill Point.		
do	2 months' salary as Light-keeper \$148 13 do superannuation tax 1 87	150 00	
Uhanteloup	Re-silvering reflectors	55 80	205 80
<u> </u>	Carried forward	·····	49,967 02

	Brought forward	\$ cts.	\$ cts. 49,967 02
	Wolfe Island.		,
Robert Gillespiedo	12 months' salary as Light-keeper \$246 88 do superannuation tax 3 12	250 00	
E. Baker H. M. Horsey	Paint, oil, and repairing can	1 04 6 65	257 69
	General Account.		
David Taylor	Freight and cartage of oil	7 70	
E. Chanteloup	plass and reservoirs	3,047 61 384 22	
Denon, Drake & Co	Paint, drugs, brushes, &c	29 45	
D. Phelan	2,100 lbs. soap at 6cts  Paint, white lead, glass, &c	126 30 1,926 <b>85</b>	
F. Dolan	Cotton, duck flannel, wall paper, towelling, &c	616 10	
W. Glendenning Fotheringham & Work-	7 stoves at \$12.00	84 00	
man	Hardware, iron plates, chains, &c	581 61	
Globe Printing Co	4 boats, oars, &c., complete	275 18   26 20	
G. N. Pirie & Co	do in Toronto National	6 00 3 00	
J. J. Sydney J. W. Carmen	do Welland Tribune	, 9 00	
Bengough Bros	do for oil	6 00	
A. Gunn & Co	do doLinseed oil, English oil, turpentine, &c	17 66 73 <b>3 97</b>	
do	Rent of store at Kingston	50 00	
do	Storage of oil	29 20 62 00	
J. R. Gemmell	Advertising tenders for oil and for "Sapply Steamer"	9 90	
F. Fitzgerald & Co	Oil—5,688 galls. delivered at Goderich, at 242cts\$1,393 56		
	5,779 galls. delivered at Hamilton,		
	at 241cts		
	at 25½cts 2,152 20	4 061 61	
E. G. Laverdure	Oil tanks, rotary pump, rubber hose and tinware	4,961 61 730 65	
Jos. Tomlinson	Travelling expenses	513 55	
John Harvie	In full for charter of Str. "Lake Erie" delivering supplies	2,200 00	
St. Lawrence & Ottawa	Allowance for demurrage, Str. "Lake Erie"	28 12	
Chance Bros. & Co	Freight of supplies	1 50 279 25	
A. Bridge	Postages, telegrams, &c., for Superintendent of office	21 53	1
Darius Smithdo	Pay-list for labor and general repairs	837 50 427 10	
do	Travelling expenses	321 10	
	Lights\$1,176 00 Superannuation tax on above salary 24 09		
		1,200 00	
W. P. Anderson		27 00 15 63	
A. & H. Hackett	Allowance for Light Ship at Colchester Reef	700 00	
Montreal and Ottawa Forwarding Co	Freight and charges for delivering supplies	12 50	
•	Carried forward	\$19,987 59	\$50,224 71
	UBLITUL IULWALL	Serence may	April

	I	\$ cts.	\$ ets.
	Brought forward	19,987 59	50,224 71
	General Account—Concluded.		
Quebec Harbour Com-	•	•	
	Old anchors, &c	379 10	
J. U. Gregory	To pay for repairs to old anchors	65 74	
	Scale for oil reservoirs	2 50	
Kingston Gas Co	Gas consumed in lighting clock, nine months to		
•	31st December, 1877	274 52	!
City Treasurer, Kingston	Salary of Keeper of clock	100 00	i
Trinity House, London	To pay for reflectors	11 05	1
E. R. Kimpton	Bi nocular glasses for Lighthouses	48 59	
E. Devine	Advertising for oil in Toronto Advertiser	7 56	
G. B. Burland	Advertising for removal of light towers and for	Ì	
	erecting new towers	6 40	İ
Montreal Herald Printing	,		
Co	Advertising for tenders for supplies	5 70	
Pare Bros	Lumber, paint, ropes, &c	19 53	
H. A. Neison & Co	15 cases matches	44 45	
Hamilton Times Printing	1		
Co	Advertising tenders for supplies	9 54	B0 400 0
	1		20,962 27
	, , , , , , , , , , , , , , , , , , ,		
	Buoys and Be icons.		
Joseph Wilson	Duce Comics St. Isrankly North Channel Soult St.		
Joseph Wilson	Buoy Service, St. Joseph's North Channel Sault St.		
4-	Marie	603 34	
də	Repairing and taking up and putting down in	623 60	
George Newlands	Sault St. Marie	28 50	
George Newlands William Lewis	Buoys, blocks, etc	29 40	
J Granian	Placing buoys, Port Lewis		
Andrew Hackett	3 new buoys for Amherstburg	59 27	
_ do		80 86	1
	2 sets of buoy irons.	7 50	<b>!</b> !
L. Dubreuil	13 cords of stone and placing round the beacon,		
	Crab Island	65 00	
A. Deschamps	Cedar for buoys	12 32	
T. Chapman	Shackles, iron and repairing		i
Hamilton Spectator Print-		,	
ing Co	Advertising notice of buovs	3 22	
James Swift	Wharfage on buoy-stone at Kingston Harbour	10 00	
J. Matheson	Placing buoys at Nine Mile Point	16 00	
Capt. E. Monarque	Making anchor stones and placing two buoys, Lake		
_	St. Lewis	40 00	
D. Morrison	Placing buoys at Fort William	8 00	
A. Lockerbie	Renairing and placing buoys at Collingwood	77 00 1	
J. G. Wallace	Renairing buoys at Fiddler's Elbow	2 00	
u. Campbell	Replacing buoy, Burlington Bay	5 00	
wm. Shannon	Timber for buoys, Grosse Point	24 80	
д. д. Woodward	Repairing chain for buoys at Long Point	6 00	
J. W. McDonald	Repairing chain for buoys at Long Point	134 97	
J. McIntyre	do do Kaministiqua	58 35	1 000 10
			1,988 13
	Total		\$73,175 11
	Total		4.0,1.0 11

# WM, SMITH, Deputy Minister of Marine and Fisheries.

JOHN TILTON,

Accountant.

#### APPENDIX No. 8.

STATEMENT of Expenditure in connection with Maintenance of Lights between Montreal and Quebec, for the Fiscal Year ended 30th June, 1878.

	Ash and Bloody Islands (Two Range Lights.)	\$ cts.	\$ cts.
do	Salary as Keeper	200 00	
dodo	Flagging Boat	25 00	
	Boat house Painting		
do	'Repairs to Lighthouse	35 00	
do R. Kemp	Land	5 00 75 00	
A. M. Charland	Professional services	35 00	
H. St. A. Ormond	Travelling expenses	7 90	432 90
	Batiscan (Two Range Lights.)		452 00
L. Fugère	Salary as Keeper, No. 1	80 00	
J. Marchand	do No. 2	80 00	
	. House Ground rent	25 60	
J. Marchand	. do	6 00	
J. Boivin	Lock	1 25	198 85
	Cape Charles (Two Range Lights.)		. 100 00
N. Boisvertdo	Salary as Keeper.       143 28         Superannuation tax.       6 72		
do	Ground rent	150 00 10 00	
do	Paid for repairs, pump, oil, &c	4 90	16 <b>4</b> 90
	Cape Madeleine (Two Range Lights.)		10# 90
D. Manual		100.00	
A. Montplaisir	Salary as Keeper, No. 1do No. 2	100 00	
do	Ground rent	12 00	
	Land	30 00	
J. U. Gregory	Travelling expenses	14 00	
J. Nadeau	do	12 30	96V 30
	Champlain (One Light.)		280 30
Nan Handr		700.00	
do	Glass and cartage		
T. Routier	New tower	116 75	
		40 82	
J. Nadeau	Travelling expenses	10 40	
S. Bedard	Repairing lamps	2 00	277 12
}	Carried forward	i	1,354 07
J. U. Gregory J. Nadeau  Nap. Hardy do T. Routier Archer & Co J. Boivin	Champlain (One Light.)  Salary as Keeper	100 00 3 00 116 75 40 82 4 15 10 40	280 30 277 12 1,354 07

STATEMENT of Expenditure in connection with Maintenance of Lights between Montreal and Quebec, etc.—Continued.

	\$ ets.	\$ cts.
Brought forward		1,354 07
Contrecœur (Two Range Lights.		
Salary as Keeper	75 00	
Repairs to Light, &c	13 00	188 00-
Grondines (Two Range Lights.)		
Salary as Keeper No. 1	100 00	
do	4 00	
	9 95	
Glass	18 00	
Ruilding for new lantern. &c.	1	
Julius John Levi Lanconni, Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commission Commis		357 05
Isle à la Bague (One Light.		
Salary as Keeper	160 00	
Putting up and taking down tower	30 00	
Repairing pier		
t down g up to votal.		250 25
Isle de Grace (1 Light·)		
Salary as Keeper.	300 00	
Putting up and taking down tower	45 00	
do tower		
Reneirs to iron work		
Iron and cover	3 00	200 0
		392 95
, , , ,	300.00	
Finel 1877-78	10 00	
Renairs to lentern	44 62	
Lumber, &c. for light house		
Leggel services	51 65	
Clock	5 50	
Plate riege		
Stove	9 00	465 55
Isle aux Prunes (One Light)		
	150.00	
Putting up and taking down tower. 1877.	40 00	
do tower, 1878	20 00	
Fnel. 1877-78	8 00	
Stove pipe	3 50	221 50
	Contrecœur (Two Range Lights.)  Salary as Keeper	Brought forward   Contrecœur (Two Range Lights   Salary as Keeper   75 00 do   100 09 Repairs to Light, &c   13 00   Grondines (Two Range Lights   Salary as Keeper No. 1   100 00 do   100 00   Fuel for 1877-78   8 00 do   4 00 Rope   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10 80   10

### STATEMENT of Expenditure in connection with Maintenance of Lights between Montreal and Quebec, etc.—Continued.

		\$ cts.	\$ cts
:	Brought forward		3,229 37
	Isle aux Raisins (Two Range Lights.)		
dodo do	Salary as Keeper Putting up and taking down tower, 1877 do tower, 1878 Fuel, 1877-78 Clearing canal Coal, tar, paint, canvass, &c Lamp	15 00 12 00 10 00 14 96	390 71
	Isle Ste. Thérèse (Two?Range Lights.)		
S. Reeves	Salary as Keeper, No. 1	180 00 80 00 50 50 6 50 1 20 6 90	<b>325</b> 10
	Lacolle (Two Range Lights.)		
W. H. Vanvliet,	Salary as Keeper       \$143 28         Superannuation tax       6 72	150 00	
E. Chanteloup	Replating reflector	12 00 1 00	163 00
	Lavaltrie (Two Range Lights.)		
do	Salary as Keeper	300 00 -60 00 30 00 40 00 9 00 30 00 44 57 12 86 4 32	530 69
	Lightship No. 1.		
P. Bellefeuille	Salary as Keeper	500 00 30 00 82 40 23 57 2 10 36 00 45 68 26 38	<b>746</b> 13
			5,385 00

### STATEMENT of Expenditure in connection with Maintenance of Lights between Montreal and Quebec, etc.—Continued.

	D 146 1	\$ cts	\$ cts 5,385 00
	Brought forward!		•
	Lightship No. 2.		İ
	Salary as Keeper         \$496         24           Superanauation tax         3         76	F00.00	
Modeste Frechette C. LaBelle	Iron work (repairs)	500 00 653 92 1,350 00 103 96 79 75 145 00	
C. McLaren P. Bellefeuille B. Bignell	Survey	32 30 36 00 40 00 30 00 7 90	<u> </u>
E. Courchene	Iron and repairsRope, canvass, &c	6 80 3 50	9 000 10
	L'Islet, Richelieu (One Light.)		2,989 13
do	Salary as Keeper	200 00 21 <b>25</b> 46 00	
; •	Lightship No. 3.		267 25
A Marnon	, ,		
do	Salary as Keeper	500 00	
P. Bellefeuilledo	Wintering and repairs	90 <b>98</b> 30 00	
C. Labelle E. Chanteloup	Fuel, six cords, at \$5	58 84 27 00	
A. Portelance	Rope, canvass, &e	21 63 2 22 00 1	
E. Courchene	Repairs, iron work of lantern	2 00	
S. negard	Stove, pipe and repairs	16 60	769 05
	Lotbinière (Two Range Lights.)		
O. C. De la Cherrotiere	Salary as Keeper. No 1do 2	80 00 80 00	160 00
1	Montreal Harbour (Two Range Lights.)	1	
do	Salary as Keeper	250 00 70 00 28 10 40 00	
ee, Brady & Co	Repairs	295 65	683 75
	North Half Woy Point (Two Range Lights.)		
	alary as Keeper \$163 10 uperannuation tax 6 90	170 00	
do	tone for repairs	170 00   30 00	200 00

# STATEMENT of Expenditure in connection with Maintenance of Lights between Montreal and Quebec, etc.—Continued

	Brought forward	\$ cts.	\$ cts 10,454 18
	Platon (Two Range Lights.)		
. Beaudet	Salary as Keeper	150 00	
do	Freight of supplies	4 60	
2. Jobin	Repairs to Lighthouse, &c	177 60	
I. Kobitaille	Sinkers	29 40   20 <b>6</b> 5	
. Tomlinson	Travelling expensesdo	49 75	
rcher & Co	Lumber	14 43	
Routier	Repairs	4 50	
. Bedard	Repairs to lamps	2 50	
. Boivin,	Nails	2 00	455 4
	Point aux Tremhles (Two Lights.)		
A. Lamoureux	Salary as Keeper		130 0
	Point du Lac (One Light.)		4
I. Paquin	Salary as Keeper	100 00	
do	Passage to Quebec and return and cutting down	33 75	
	trees		111 7
	Point Citrouilles (One Light.)	;	
	Salary as Keeper	250 00 11 00	
do	Ground rent	12 00	
. n. marchidon	Stove pipe	15 25	
C. O. Vallerand	Lamps	1 25	289 5
٠.	l'ort St. François (Three Range Lights.)		200
		900 00	
. Duval	Salary as Keeper	200 00	
do	. Boat, \$8; repairing wharf, \$9.70	17 70 40 00	
	Putting up and taking down tower, 1877 Putting up tower, 1878	30 00	
do	Storage of 2 towers, 1876-77	20 00	
apt. Duval		20 00	
. Jobin	Repairs and travelling expenses	11 95	
Bedard		4 50	
			344
	St. Pierre les Becquets (One Light.)		
. Charland	. Salary as Keeper	70 00	
. M. Tardivel	. Painting	37 25	107
	St. Valentine (Two Range Lights.)		
. Martin	Salary as Keeper	143 91	
do	Superannuation tax	6 09	150
	Rivière du Chêne (One Light.)		
Widow J. Langlois	Salary as Keeper	75 00	
J. M. Tardivel	Plate glass	16 00	91
	Coming Command		12,133
	Carried forward214		12,133

#### STATEMENT of Expenditure in connection with Maintenance of Lights between Montreal and Quebec, etc.—Concluded.

		\$ 0	ts.	\$	cts
	Brought forward		1	2,133	26
!	Repentigny (Two Range Lights.)				
C. Rivet	Salary as Keeper, No. 1	70 ( 70 ( 12 (	00	152	00
	Sorel Harbour (Two Range Lights.)	İ	İ		0.,
Richelieu Co	Keeping light during 1877-78			85	00
	Buoys.		ļ		
M. Bergeron T. Routier	Spars New buoy	18 6 6 2	- 1	24	20
	General Account.		!		
E. Chanteloup. F. O. Vallerand. J. Nadeau do J. Boivin L. Bourget. J. Vandry. J. M. Tardivel P. Perron S. Marcotte. J. E. Holiwell J. Desgagne P. Pery Dawson & Co Ellefeuille. W Barbour	4,690 gallons of petroleum, at 26c	1,219 4 614 2 121 5 760 0 31 8 471 3 74 1 64 8 41 6 43 7 30 0 18 0 18 0 22 8 19 2 5 6 38 6 38 6 38 6 38 6 38 6 39 2 2 9	55   00   00   00   00   00   00   00	601	63

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON, Accountant.

#### APPENDIX No. 9.

STATEMENT of Expenditure on account of Maintenance of Lights below Quebec, for the Fiscal Year ended 30th June, 1878.

		i i	
	Algernon Rock.	\$ cts.	\$ cts
E. Chanteloup	Glass, &c., fer Lighthouse	38 00	
J. M. Tardivel	Painting	14 50	
J. Boivi <b>n</b>	Hardware	9 35	
A. H. Murphy	Cement		
	Coal tar and brushes		
1. Parent	Lime	1 30	77 85
	Amherst Island.		
W. Cormier	12 months' salary as Light keeper \$296 24		
do	Superannuation tax		
M Rovee	2 gords wood at \$4 per cord	300 00	
do	2 cords wood, at \$4 per cord	8 00	
7. Seifert	Telescope	13 50	
r. O. Vallerand	Chimneys and wicks	3 40	
	Cloth and leather	3 90	
J. Boivin	Shovel, files, &c	1 90	
	Lamps	1 55	
J. M. Tarqivei	Glass	10 91	0 T F 0
	, 		355 36
	Anticosti (West Point).	l i	
L. Malouin	12 months' salary as Light-keeper \$395 00		
do	Superannuation tax 5 00	100.00	
do	Allowance for an Assistant	400 00 200 00	
P. Jobin	Building breakwater	469 44	
r. Routhier	Making new grappels	15 60	
L. Arel	Provisions	3 90	
G. Bouchard		5 10	
	Hardware	46 88	
R. Setter	Lumber	19 68	
	as per contract	250 00	
J. & W. Wurtele	Iron	3 63	
Bourget	Provisions	15 00	
Honghton	Medicines	35 35	
. Taylor & Bro	Fire extinguisher	7 20 42 80	
. Parent.	Barrels and lime	10 30	
udet & Robitaille	Chains and spikes,	92 20	
Boivin.	Paint, nails, &c	16 25	
isher & Diouin	Z norse collars, comb, naiter, &c	12 85	
M Tardirol	Oats, bran, &c	25 00	
O Vallerand	Glass and putty	2 16	
Bedard	Lamps and chimneysStove pipes	4 80 5 00	
. Leclerc	336 lbs. junk, at 4½ cents	15 12	
. Vaudry	Cloth and leather	4 50	
I. D. Dion & Co	Depôt : Flour	17.00	
Bouchard		17 60   19 <b>0</b> 0	
		13 00	1,739 36
	Carried forward		2,172 57
	216		,-

	Brought forward	\$ cts.	\$ cts. 2,172 57
	Anticosti (South-West Point.)	1 1	
E, Pope do	12 months' salary as Light-keeper \$395 00 Superannuation tax 5 00		
E. D. Dion & Co	Allowance for two Assistants.  Oats, bran, &c  Medicines.  Flag.  Cloth and leather  Hardware  Glass.	20 25 12 40 12 00 9 60 8 60 4 50	
G. T. Phillips	Rubber hose and emery cloth	4 90	070 08
	Anticosti (South Point).		872 25
D. Têtudo	12 months' salary as Light-keeper \$588 00 Superannuation tax 12 00		
J. Eden	Building engine-house Scow Sails Anchor and chain Hardware Making steam-funnel Iron Cloth and leather Hardware Clock 4 lamps, stove and piping, etc. Paint, vice, etc	150 00 60 83 54 29 12 55 9 30 8 09	
D. Têtu	Fog-Whistle:— Allowance for 12 months' salary of Engineer 100 cords wood, \$3.00 Brass tubes Die-stock Rubber, check-valves, steam gauge, etc 100 coal barrels headed and filled Wire rope	520 00 300 00 365 67 27 75 104 65 27 00 1 20	<b>2,</b> 481 <b>38</b> :
	Anticosti (East Point).	i	
do  W. Barbour Audet & Robitaille Archer & Co E. D. Dion T. Routier J. Boivin T. Routier J. Vaudry T. Houghton W. H. LaRoche S. Bédard	Danot	400 00 400 00 175 00 87 68 51 08 20 25 24 60 33 70 11 20 5 40 3 90 0 75 4 57	
J. Vaudry L. Bourget E. D. Dion & Co	Clothing	73 57 1 60 66 00	1,359 30
	Carried forward217		6,885 50

Baie St. Paul.			\$ cts.	\$ ct
H. Tremblay		Brought forward		6,885 5
Superannuation tax   2 52   200 00		Baie St. Paul.		
do				
12 months' salary as Light-keeper	do	Fuel, 1877-78  Boat and repairs  Painting  Wrench  Rope.  Grindstone and axe  Water-barrel  Cloth and leather	30 00 86 50 51 00 12 00 7 28 7 65 3 00 1 50	401 93
Superannuation tax   4 00   320 00		Bellechasse.	}	
Go				
Repairs to Lighthouse, &c.   40 00	J. Vaudry J. Boivin	Cloth and leather	31 85 2 40 2 80	
M. Colton				399 25
Superannuation tax   12 00   600 00	,	<del>-</del>		
Board and lodging for workmen whilst repairing   Lighthouse.   8 00	do	Superannuation tax 12 00		
A. H. Murphy	do	Board and lodging for workmen whilst repairing Lighthouse	İ	
D. Dion	Parent	Coal barrels		
Vaudry	. D. Dion	Oats and bran		
isher & Blouin       Horse collar       10 00         M. Tardif       Spars       9 50         Bolvin       Paint and brushes       48 80         udet & Robitaille       Rope       2 25         Gourdeau       7 days' labour at repairs       10 50         T. Phillips       Brass castings and repairs       22 25         & W. Wurtele       Iron       5 55         V. H. Laroche       Medicines       1 05         T. Phillips       Hooks       4 60         Bedard       Stovepipes       14 25         Belanger & Co       Hammer       1 90         hance Bros. & Co       Lamps and lighting apparatus       720 64         Depot:—       Flour       121 00				
M. Tardif				
Rope	. M. Tardif	Spars		
A. W. Wurtele				
& W. Wurtele   Iron	. Gourdeau	7 days' labour at repairs		
7. H. Laroche       Medicines       1 05         1. T. Phillips       Hooks       4 60         1. Bedard       Stovepipes       14 25         1. Belanger & Co       Hammer       1 90         1. Hamps and lighting apparatus       720 64         1. Depot:       Flour       121 00	. & W. Wurtele	Iron		
Stovepipes	7. H. Laroche	Medicines	1 05	
Belanger & Co   Hammer	Redard	Hooks		
Depot:— 121 00	. Belanger & Co	Hammer		
D. Dion	nance Bros. & Co	Lamps and lighting apparatus	720 64	
	. D. Dion		121 00	
	Bouchard	Pork		
. Pourget 1 50 2,398	. Kourget	Salt	1 50	2,398 69

	Brought forward	\$ ets.	\$ cts 10,085 37
. !	Bicquette.		
do	12 months' salary as Light-keeper \$395 00 Superannuation tax 5 00  Allowance for Gunner 8 Fuel, 1877-78 8 Hangard Paid for freight, cartage and postage 8 Hardware 8 Lumber 9 Junk 9 Chain, oars, etc 9 Cloth and leather 9 Gun-metal, etc 10 Lime 10 Allowed on exchange of boat 10	400 00 200 00 24 00 12 00 8 60 20 64 19 63 28 62 13 20 4 50 2 75 2 30 1 25 4 00	740 49
	Bird Rocks.		
do  P. Whalen  Audet Robitaille  Archer & Co  T. Parent  B. A. H. Murphy  J. Boivin  J. M. Tardivel  J. Wandry  W. H. Laroche  G. Vallerand  L. G. T. Phillips  L. G. Bisset  L. Leclerc  J. T. Boutier  S. Bedard  Chance Bros. & Co  L	2 months' salary as Light-keeper. \$588 00 superannuation tax. 12 00  Allowance for two Assistants. 200, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201, canvas, etc. 201	600 00 900 00 142 93 54 40 47 60 84 60 54 80 7 85 10 20 4 50 3 00 1 50 5 60 0 98 25 20 10 80 4 00 720 64	
E. D. Dion & Co	Pepot:— Flour, peas, etc Pork Repairing stove	112 20 95 00 2 00	2,887 20
J. Vandry CO. P.	Brandy Pots.  2 months' salary as Light-keeper: \$295 00 uperannuation tax 5 00  uel, 1877-78 cloth and leather aint.  Cap aux Oies.	400 00 20 00 2 40 4 20	426 60
	2 months' salary as Light-keeper \$197 48 uperannuation tax 2 52	200 00	
	Carried forward	200 00	14,139 66

	Brought forward	\$ cts. 200 00	\$ cts. 14,139 66
	Cap aux Oies-Concluded.		
do do Mrs J. Bouchard C. Clement C. Côté T. Lapierre F. X. Dery G. T. Phillips J. Vaudry Audet & Robitaille F. O. Vallerand	Fuel, 1877-78Paid for repairs to closet, etc	33 60 12 00 3 00 1 50 9 38 1 10	404 53
	Cape Chatte.	i	
do do do T. Routier J. Boivin J. Vaudry T. Roatier J. Boivin P. Corriveau V. Gosselin	12 months' salary as Light-keeper	300 00 4 00 20 00 37 50 21 00 2 40 627 55 10 75 9 60 2 30 274 64	1,309 74
	Gran Domestic	į.	2,000
do do A. Painchaud J. Boivin F. O. Vallerand W. H. Larcche J. M. Tardivel J. Vaudry	Cape Despair.  12 months' salary as Light-keeper \$395 00 Superannuation tax 5 00 On account of building stable Fence, \$5.13; fuel, \$8 Survey and plan Paint Lamps and chimneys Medicines Glass Cloth and leather. Lamps repaired Cape Gaspé.	400 00 50 00 13 13 12 50 9 35 7 70 3 40 3 05 2 40 2 00	503 <b>5</b> 3
Archer & Co	12 months' salary as Light-keeper	400 00 49 83 35 40 23 75 19 60 25 15 14 00 9 95 6 90 5 25	
	Carried forward 220	589 88	16,357 46

Brought forward  Cape Gaspé—Concluded.  Brushes Glaziers' diamond, &c	\$ cts 589 88	\$ ets. 16,357 46
Brushes Glaziers' diamond, &c		
Cloth and leather	8 25 4 25 2 24 3 00 4 75 10 00 400 00 167 40 33 50 47 00 67 00 52 00	1,389 27
Cane Mandalen	į	
12 months' salary as Light-keeper	300 00 113 55 25 00 27 62 8 20 3 00 1 45 200 00 36 35 57 00 1 70	773 87
		110 01
Cape Norman.  12 months' salary as Light-keeper	500 00 24 00 9 85 11 19 9 65 3 76 1 75 10 60 83 50	654 29
Cape Ray.  12 months' salary as Light-keeper	600 00 100 00 5 75 100 00 129 00 60 00 62 85 12 20	19,174 89
	Nails, axe, &c.  Fog. Whistle:—  12 months' salary as Engineer.  90 tons of coal at \$1.80, \$162; trimming, \$5.40 Repairing steam guage and tubing  Tube expanders Landing coals 4 cords of hard-wood, \$34; 4 cords soft-wood, \$18  Cape Magdalen.  12 months' salary as Light-keeper	Nails, axe, &c

	Brought forward	\$ ets. 1,069 80	\$ cts. 19,174 89
	Cape Ray—Concluded.		
T. Parent J. Boivin Duquet & Co. F. O. Vallerand L. Bourget B. Vohl Audet & Robitaille S. Bédard	Cloth and leather Water barrels	9 00 51 35 5 50 9 05 0 75 12 00 29 25	
R. Rennie H. W. Johnston G. T. Phillips T. Parent C. and W. Wurtele S. J. Shaw L. Arel T. Routier	Fog Whistle:—  12 months' salary as Engineer Paid for landing coal Lead piping, plumbers' repairs, &c Lime Cast steel Tube expanders and joints Tallow Building scow  Cape Rosier.	33 55 47 80 2 60 2 70	1,951 00
do  do J. Vaudry	12 months' salary as Light-keeper	400 00 400 00 18 00 59 00 355 45 78 00 36 45 9 50 11 15 75 64 2 60 8 00 61 02 3 00 4 32 2 44 5 00 1 00 4 50 15 12	1 850 19-
	Chicoutimi Range.		1,550 19
r. Parent	Salaries of Keepers, for season of 1877	192 00 480 00 124 93	
Navigation Co.   F	reight  ravelling expenses, looking after buoys llacksmith's repairs lardware ron lime lloth and leather wivels and shackles ravelling expenses	65 70 30 75 ( 35 29 3 50 3 10 2 60 1 30 7 50 26 00	972 67
	Carried forward		23,648 75

	Brought forward	\$ cts.	\$ cts 23,648 75
С Нагусу	Chicoutimi Range.	40.00	
do	Salary for season of 1877	40 00	44 90
	Carleton Point.		
E. Chanteloup F. (). Vallerand	12 months' salary as Light-keeper \$296 24 Superannuation tax 3 76 Glass Lamp and chimneys Cloth and leather Fuel, 1877-78	300 00   7 25   3 80   2 25   20 00	
			333 30
do	Crane Island.  12 months' salary as Light-keeper	320 00 4 00 16 00 10 00 203 85 5 07 94 08 31 06	
J. M. Tardivel	Painting light-house, &c	17 85 3 00 3 00 1 50	719 5 <b>1</b>
do R. Blakiston T. Parent J. Boivin P. F. Renfret. F. O. Vallerand J. Vaudry Chinic & Beaudet. Audet & Robitaille. J. M. Tardivel A. Pelletier et fils S. Bedard T. Routier D. Belanger & Co. Dinning & Webster L. Bourget J. M. Tardiff A. Fraser & Co.	12 months' salary as Light-keeper \$493 72 Juperan nuation-tax 6 28  Fuel, 1877-78 Cotton-duck, making sails, rope, &c Puncheons Hardware, paint, &c Medicines Chimneys and wicks Cloth and leather Powder Rope, canvas Brushes Lime Stove, pipe, &c Grapple and chain Brushes, files, &c Crement Provisions Spars Freight, and passage of 10 workmen Lumber Painting	500 00 34 00 61 79 16 00 156 52 14 00 10 45 3 75 5 25 23 78 1 25 12 50 33 15 2 60 4 85 60 00 61 95 27 60 121 00 576 20 30 04	1 TEC CO
	,		1,756 68
	Carried forward		26,503 14

223

	Brought forward	\$ cts.	\$ cts 26,503 14
	Ellis Bay		20,000 11
R. Setterdo	12 months' salary as Light-keeper \$197 48 Superannuation tax 2 52		
	Entry Island.	ļ	200 00
J. Cassidydo	12 months' salary as Light-keeper \$296 24 Superannuation tax 3 76		
r. Parent Fisher & Blouin	Cloth and leather	300 00 3 90 3 90 2 00 1 66	
_	Etang du Nord.		311 46
J. Boivin. W. Barbour J. Vaudry T. Parent W. H. LaRoche J. J. Fox S. Bédard. J. J. Fox	12 months' salary as Light-keeper	17 55 50 00 2 55 3 00 1 00 27 08 48 35 7 00 13 00	
T. O'Brien	Fog-Whistle:—  12 months' salary for Engineer Fuel, 1877-78 Paid for coaling	100 00 44 00 167 40 25 00 63 00 1 19 8 50	1,496 18
do do do do do do E. Chanteloup	12 months' salary as Light-keeper	200 00 140 00 15 00 12 00 20 00 36 00 36 50 15 30 23 15 133 75 5 80 3 90 2 10 6 60 7 55 26 95 5 04 14 40	
d. S. Scott & Co	Wrench	0 50	724 54
	Carried forward		29,235 32

	Brought forward	\$ cts.	\$ cts 29,235 32
	Forteau.		
do Si  do A  E. D. Dion O  J. Boivin P  Archer & Co L  Fisher & Blouin H  J. Vaudry C  L. Bourget Si  T. Houghton H  Audet & Robitaille H  L. Leclerc 67  S. Bédard Si	2 months' salary as Light-keeper	400 00  420 00 20 25 19 70 19 10 11 95 4 50 1 50 1 20 1 00 30 24 22 80	1,148 04
Audet & Robitaille	Gaspé Basin.  alary as Light-keeper, during season of 1877  opeostages and telegrams	42 00 2 00 16 40	<b>6</b> 0 <b>4</b> 0
J. Eden R	Gaspé Lightship.  2 months' salary as Light-keeper ope loth and leather	400 00 8 22 1 38	409 <b>6</b> 0
do	Green Island.  2 months' salary as Light-keeper	500 00 15 50 6 50 360 00 112 00 41 34 50 45 28 62 37 50 9 12 7 50 6 00 4 15 10 00 1 25 1 30 6 93	1,198 16
	Carried forward	1-	32,051 52

		\$ ets.	\$ cti
	Brought forward	•••••	32,051 52
J. Taylor Bros. E. Chanteloup. T. Parent. T. Routier. J. Boivin. W. H. LaRoche. J. T. Routier. J. Vaudry. Ouguet & Co H. Watson. F. O. Vallerand. J. Marcotte. J. Routier. J. Routier.	Greenly Island.  On account of salary	42 80     80 00     38 50     14 30     27 01     13 35     16 40	6 <b>2</b> 6 <b>9</b> 7
do	Kamouraska.  12 months' salary as Light-keeper	400 00 9 80 4 32 57 00 18 50 10 35 7 90 5 15 2 70 5 55 5 51	<b>526</b> 78
do S  do F. M. Tardivel G W. H. LaRoche M A. H. Murphy 4 Andet & Robitaille F. O. Vallerand G L. Lapierre G Vaudry G Parent L S Routier B B Bedard S B Oovin 7	Lark Islet.  2 months' salary as Light-keeper. \$197 48 Superannuation tax. 2 52  Fuel, \$30; repairs to boat, \$9.45  Flaes and wall paper Medicines. 00 bricks, \$2 80 Ope, oars and oakum Hardware Chimneys and wicks. 9ars Building new house Stove and pipe. 9ack, axe and shovels.	200 00 39 45 29 59 11 10 11 28 9 80 7 90 3 00 2 25 1 30 48 80 18 05 7 22 4 20	404 24
{			33,609 51

	Brought forward	\$ cts.	\$ ets
	Macquereau Point.		00,000 01
▲. Brothertondo	9 months' salary as Light-keeper		
▲. Bertrand	3 months' salary as Light-keeper 74 06 Superannuation[tax	225 00	
R. Chanteloup	Fuel, 1877-78.	75 00 20 00 10 50	
J. Vaudry	Hardware Chimneys and wicks Cloth and leather	5 80   2 60   2 25   2 50	
13. DOUGLU	Burners, repairs to lamps, etc	2 30	<b>343</b> 65
T. Cornell	Balance of contract, 1877	2,550 00 650 00	
	paint, clocks, &c	1,272 50   104 00   214 52	
Audet & Robitaille	Cooking range	79 00   104 75   13 40	
J. Boivin	Clock Paint, files, nails	9 00 18 67	
T. N. Tweeddell	Preparing for wintering	40 00 4 76 10 00	
J. Boivin	Cloth and leather	3 15   8 10   3 10	
C. & W. Wurtele	Repairing compass.  Medicines	3 00 1 00 1 38	
S. Bédard	Watching Outfit and repairs Lamps, repairs, etc.	72 00 30 37 67 15	
J. Marmen	Painting	3 30	
L. Arel G. T. Phillips.	Fog-Whistle:— Tallow Copper and brass, repairs	12 00 79 <b>6</b> 50	
A. H. Murphy S. J. Shaw W. Barbour	Repairs to boiler and engine	108 00 52 95 37 40	
T. Cornell W. Barbour	Outfit do 11 cords wood for engine, \$4 Paid for coaling	11 90 44 00 13 00	
	Martin River.		6,331 90
J. Gauthierdo	Twelve months' salary as Light-keeper. \$296 24 Superannuation tax 3 76	300 00	
" Maloney	Fuel, 1877-78	25 00 20 00	
	1876, to 1st April, 1877	50 00 3 90	398 90
	Carried forward		40,733 96

Brought forward	\$ ets.	\$ cts 40,733 96
Matane		
122 0614/104	1	
Twelve months' salary as Light-keeper. \$246 88 Superannuation tax	55000	
Cloth and leather	10 00 2 40	
Paint and brushes	3 00	277 00
		211 00
<b>f</b>	1	
12 months' salary as Light-keeper \$296 24 Superannuation tax	300.00	
	20 00	
Cloth and leather	2 40	
Zinc		
		379 05
Montée du Lac.		
12 months' salary as Light-keeper \$345 60		
	350 00	
Building small store, shed, &c	167 90	
Fuel. 1877-'78	30 00	
Passage of workmen from Quebec to Montée du Lac	20 00	
Landing supplies	12 00	
Provisions	9 75	
Coal barrels	2 50	
Wall paper	6 00	
Cloth and leather	2 25	
		719 16
Paspebiac.		
12 months' salary as Light-keeper \$140 16 Superannuation tax 9 84		
	150 00	
Lamps and chimneys	5 05	
Glas	5 25	
Coals	3 50	
Closs and leather.	2 25	
Emnty harrels	2 30	
Fuel, 1877-'78, \$20.00; wharfage, \$1.15	21 15	
Lamps and repairs		50
		203 50
Carried forward		42,312 67
The same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the sa	Twelve months' salary as Light-keeper. \$246 88 Superannuation tax. 3 12 Fuel, 1877-78	### Brought forward ### ### ### ### ### ### ### ### ### #

	Brought forward	\$ cts.	\$ cts. 42,312 67
	Percé.		
C. Bourget	10 months' salary as Light-keeper, at \$100 per annum	104.17	
do do A. Painchaud S. J. Shaw J. Vaudry J. Boivin	Allowance for blowing fog alarm Fuel, 1877-'78 Painting and repairs to lamps, &c. Survey plan and travelling expenses. Powder and caps. Cloth and leather Paint and brushes. Lime	3 45 2 40 2 85	22 <b>7 6</b> 7
	Pilgrims.		
do do do Audet & Robitaille J. Boivin Archer & Co T. Routhier J. Yaudry S. Bédard	12 months' salary as Light-seeper	14 08   8 75   7 90	513 93
	Pillars.		<b>0</b> 2 <b>0</b> 0
do do T. Parent J. Boivin Archer & Co J. Vaudry F. Vallerand C. Levesque G. T. Philips S. J. Shaw Audet & Robitaille	12 months' salary as Light-keeper	45® 00 25 00 45 50 12 10 28 37 16 24 9 00 6 30 5 00 4 75 2 97 67 20 1 89	674 23
	Pointe des Monts.		
do Archer & Co	12 months' salary as Light-keeper	400700 300 00 90 78 94 51 53 60	
-	Carried forward	938 89	43,728 50

	<u> </u>		
	Brought forward	\$ cts. 938 89	\$ cts. 43,728 50
Z. Lapierre P. F. Rinfret W. H. LaRoche E. Cazeau T. Parent Fisher & Blouin F. O. Vallerand W. Watson E. D. Dion & Co J. M. Tardivel Andet & Robitaille J. Vaudry Dinning & Webster L. F. Faffard C. Houghton S. Bédard L. Leclere	Pointe des Monts—Concluded.  Salvage of boat. Canoe	48 00 19 50 5 55 30 00 23 05 26 00 16 85 14 25 20 25 9 85 4 50 10 00 10 00 3 60 31 30	1,284 41
J. Boivin F. O. Vallerand C. Letellier	Chimneys and wicks	250 00 2 20 0 30 24 00 4 95	281 45
Archer & Co T. Routhier C. F. Langlois J. Boivin F. O. Vallerand W. H. LaRoche J. M. Tardivel J. Vaudry J. Marsau Dinning & Webster L. Poliquin Audet & Robitaille S. Bédard	Point Rich.  12 months' salary as Light-keeper	600 00 188 13 310 20 60 00 84 37 14 40 7 30 6 50 4 90 4 00 6 93 2 20 37 20 76 95 2 15	1,404 23
do <b>Z. La</b> pierre	Portner (Betow).  12 months' salary as Light-keeper	350 00 45 00 109 00 16 88 511 88	46,698 59

	Brought forward	\$ ets 511 88	\$ cts. 46,698 59
	Portneuf (Below)—Concluded.		
W. Tremblay J. Boivin F. O. Vallerand	Medicines Freight of boat Herdware. Lamps and chimneys. Cloth and leather Stove, pipe and repairs.	6 00 13 17 2 75	<b>577</b> 15
	Portneuf(Above).		
F. Rodrique	12 months' salary as Light-keeper \$246 88 Superannuation tax 3 12	250 <b>0</b> 0	
G. Germain	Fuel, 1877-78  Ground rent.  Preight and cartage  Painting  Lumber  Oars, canvas  Glass cloth and chamois  Travelling expenses, inspection of repairs  Hardware	10 50 5 50 4 61 9 20 19 72 13 12 6 01 3 16 2 95	32 <b>4</b> 77
	Red Island Lighthouse.		
do do E. Fraser Z. Lapierre G. Turgeon Archer & Co J. Boivin Andet & C. bitaille F. O. Vallerani J. Vaudry T. Routier A. H. Murpuy J. M. Tardivel J. Gourdeau	12 months' salary as Light-keeper	500 00 20 32 160 00 25 00 128 00 179 50 29 35 19 39 17 .63 10 55 10 07 5 20 5 00 4 50 4 00 3 00	1,121 51
	Red Island Lightship.		
do do E. Chanteloup Audet & Robitaille J. Blais J. Marmen T. W. Tweddell. F. O. Vallerand. Archer & Co J. Boivin A. H. Murphy G. Lapointe	Balance of contract, 1877 On account of contract, 1878 Travelling expenses of workmen, &c Cooking range Rope, chains, &c Wintering Cartage Towage to winter quarters Lamps, chimneys, &c Lumber Hardware 13 days' moorage, at \$2 Freight Clock	1,900 00 500 00 92 30 79 00 141 34 40 00 13 75 20 00 21 10 11 40 44 25 26 00 12 50 6 00	
	Carried forward	2,907 64	48,722 02
	231		

		1	
		\$ cts.	\$ cts
	Brought forward	2,907 64	48,722 02
	Red Island Lightship—Concluded.		
	Preparing for wintering	20 45	
W. Barbour	Pay-list of wages do		
J. Vaudry	Cloth and leather	3 15	
J. Boivin	Padlock	1 00 1	
T. Routier	Watching Repairs and outfit	96 00 217 84	
J. Sullivan	Davits	112 00	
J. M. Tardivel	Painting	40 00   68 19	
S. Bédard	Repairing boilers, pipes, &c	19 25	
G. T. Phillips	Fog-Whistle:— Brass and copper repairs, condenser tubes, &c.	252 61	
A. H. Murphy	15 chaldrons coals, at \$6	252 61 90 00	
C. Parent	Coal barrels	14 75	
J. Shaw & Co	Rubber packing	47 31   258 00	
V. Barbour	Repairs to engine and boiler	308 40	
H. S. Scott	Boiler plate	109 11	
C, & W. Wurtele W. Barbour	Iron Paid for coaling	5 85 13 00	
Bissett	Standard	31 17	
3. T. Phillips	Brackets	6 04	4,635 44
		•	4,030 44
	St. Antoine.		
L. Lafleur	12 months' salary as Light-keeper	140 00	
do Audet & Robitaille	Painting Brushes, canvas, &c.	10 00 18 19	
. Lafleur	Fuel, \$5.00; cartage of oil, &c., \$2.50	7 50	
. Boivin	Wrench	1 75	
. Douaru.	Ventilator, drip pans	15 50	192 94
	Ste. Croix.		
Thusban		1	
do	12 months' salary as Light-keeper \$162 92 Superannuation tax 12 08		
		175 00	
do	Painting	8 00 14 00	
Duquet & Co	Clock	4 00	
. Boivin	Files and tacks	4 00	
beuaru	Measures, pipe, &c	7 80	212 80
		İ	
	St. Francis Range.		
Г. Lepage	12 months' salary as Light-keeper	75 00	
. Marceau	do do	75 00	
Vaudry	Fuel, 1877-78	12 00	
. O. Vallerand	Globe	0 92 0 20	
			163 12
•	Carried forward		53,926 32

	Brought forward	\$ cts.	\$ cts. 53,926 32
	St. John's Point.		
C. Langloisdo	12 months' salary as Light-keeper \$296 24 Superannuation tax	1	
C. Lachance	Contract for repairs to Lighthouse	300 00 22 00 16 00 5 65 1 50	345 15
	St. Laurent Point.		
J. Chabotdo	12 months' salary as Light-keeper \$296 24 Superannuation tax	300 00	
F. O. Vallerand	Painting Hardware. Cloth and leather. Lamps and chimneys Rope. Repairs to canister.	30 75 8 21	347 05
	Seven Islands.		341 00
F. Arcanddo	12 months' salary as Light-keeper\$395 00 Superanguation tax	400 00	
Archer & Co	Allowance for fuel and water  Lumber	100 00 148 32	
E. Chanteloup	pairs	85 55   66 00	
C. & W. Wurtele	Rope	51 98 43 75   4 89 4 50	
J. Vaudry T. Routier W. H. LaRoche	Cloth and leather Iron work Medicines	6 78 8 20 6 50	
G. T. Phillips	Lamps, chimneys, &c	1 80	
T. Routier	Fuel, 1877-78 Building supply store Stove, pipes, &c	30 00 15 25 23 30	
	Tadousac.		1,206 77
L. Guay	12 months' salary as Light-keeper \$296 24 Superannuation tax		
do	Building platform and gangway	325 00 50 60 25 00 22 75	
All net & Dabitailla	Flag, chain and rope	20 76	
L. GuayV. Belanger & Co	Faint, files, &c.	4 00 30 00 8 95	499 71
	Carried forward	-	56,325 00
•	233		39,000 00

	•		<b>56,325</b> 00
	Traverse Lightship (New and Upper.)		
A M Dechène	Balance of contract, 1877	1,150 00	
	On account of contract, 1878	250 00	
do	Labor and board of extra man, paint, iron	91 66	
Audet & Robitaille	Tar and rope	29 72	
	Painting.	50 80	
A H Murnhy	One chaldron coals	9 00	
T Parent	Water barrels	3 00	
S. Marcotte	Advertisement	3 96	
Archer & Co	Lumber	2 40	
J. Vaudry	Cloth and leather	1 50	
r Routier	165 fathom chain, 29,150 lbs., @ 3½ ets	1,020 25	
1. Itourer	last, &c.	372 75	
	Ballast	30 00	
D. D'Amour	Services for keeping lightship in fall of 1877	75 00	
	Repairing lamps, rods, &c.	21 35	
J. M. Oliver	Building new lightship, extras as per contract	4,799 00	7,915 39
	Traverse Lightship (Old and Lower.)	İ	
	Balance of contract, 1877	1,700 00	
	On account of contract, 1878	600 00	
	Postages and petty disbursements	8 85 135 57	
R. Blakiston	Sails	104 82	
Z. Lapierre	Boat, \$88, paint, spars, &c., \$20	108 00	
T. Routier	Making grapples	16 60	
	Painting	36 05	
	Wintering	18 46   30 00	
J. M. Tardil	Wintering Spar	3 50 ·	
T. Routhier	Making model	3 85	
	Lumber	8 80	
J. Vaudry	Cloth and leather	3 00	
F. O. Vallerand	Chimneys and Wicks	1 00	
	Boilers, lamps, pipes	22 95 25 00	
	Cartage	0 45	
A 10 1-	Fog-whistle:	160 ==	
Aug. Dupuis L. Arel	Tallow	190 75   15 24	
A. H. Murphy		90 00	
3. J. Shaw		6 32	
G. T. Phillips		!	
	steam whistle, etc	261 90	
G: Bisser		124 36	
W. Barbour W. F. Lemesurier	Coaling	13 00 1 7 20	
W. F. Demesurer	5 corus mewood, 2 \$2.20		3,535 67
	SALARIES AND CONTINGENCIES.		
J. U. Gregory	12 months' salary as Agent \$1,959 96	i	
do	Superannuation tax 40 00	1000 00	
I. A Blanchet	19 months' sularr on Clark con an	1,999 96	
	12 months' salary as Clerk	I	
40	1000	900 00	
	Carried forward	2,899 96	67,776 06

		L	
		\$ cts.	\$ cts.
	Brought forward	2,899 96	67,776 06
	SALARIES AND CONTINGENCIES—Concluded.		
	12 months' salary as Clerk \$882 00		
do	Superannuation tax	900 00	
L. A. Blanchet	Petty cash disbursements	610 00	
J. B. Pruneau	Postages	141 26	
_	\$2.80	84 00	
	Carpet for offices	<b>69</b> 10 43 45	
	Stationery	55 90	
J. M. Tardivel	Painting blinds	20 40	
H Wise	Barometer and clock	16 25   8 50	
Goodyear Rubber Co	Rubber sheets	3 90	
	Disinfecting powder	1 00	
	j		4,853 72
	GENERAL ACCOUNT.		
T Ponthian	Daid was see for several sensing outfits at a	3,224 34	
F. X. Fitzgerald & Co	Paid wages for general repairs, outfits, etc	2,813 98	
Chinic, Beaudet & Co	Powder, 156 barrels, each 100 lbs, at 20c. \$3,120 00	.,	
	do 88 kegs do 25 lbs, at \$4.50 396 00   Cartage, freight and storage 267 35		
		3,783 35	
F. M. Dechène	Flannel	1,042 00	
J. Boivin	Paint, oil, chamois, etc	$1,597 54 \\ 542 16$	
0. Picard	do	90 00	
Archer & Co.	Lumber	452 35	
J. A. Gamá	Soap, brooms, etc	371 28 690 00	
J. Marmen	Professional services	413 80	
J. J. Foote	Cartage Advertising Travelling expenses	102 16	
W. Barbour	Travelling expenses	368 9	
t arent	Cooperage Services, 1876-77.	354 73 100 00 [	
E. Unantelono	Burners, fog-horns, spindles, fans, etc	542 80	
V. Belanger & Co	Paint	750 00	
J. Cuppingham	Cananal manaing of sails, harm sta	147 75 168 00	
vandry	General repairs of sails, bags, etc	87 12	
A. H. Murphy	132 chaldrons coals, at \$7.50	101 25	
G Turges	Freight of supplies	83 05 ( 73 00 )	
D. Bronssean	Wages putting up fog-horn, repairs, etc Paint	50 00	
. Darbour	Allowance for board	150 00	
J. Cassidy	12 months' salary as Harbour Master, Magdulen 1s-	50 00 I	
Montreal Telegraph Co	lands	55 85	
G. Seifert	Telescope	47 00	
Pawson & Co	Stationery	66 15	
J. Glassford	do Charges for extinguishers	43 65 109 10	
		67 55	
Andet & Political	Casting, steam-whistle, wrench and emery paper Rope, canvas, &c	128 00	
z · Coude	11# cords of wood at \$3.70	62 60   36 00	
		4 00	
". Eden	Salary as Sub-Agent at Gaspé	100 00	
	Carried forward	18,874 49	72,629 78
'	235	= 2, 32 1	•

		\$ cts.	\$ ct
	Brought forward	18,874 49	72,629 78
	GRNERAL ACCOUNT—Concluded.		
	Medicines	2 40	
P. F. Rinfret	do	22 00   16 30	
Acadia Coal Co	541½ tons of coal, at \$2.25\$1,217 41 Less 5 per cent	10 00	
<b>"</b> "		1,156 54	
r. Berrigan I Eden	Clearing snow	60 00   20 80	
do	Wharfage of coals	25 <b>0</b> 0	
Duquet & Co	Telescope and clock	20 00	
W. H. Laroche	Fire kindling	30 00	
Dr. Bradley	60 gross of fire kindling, at \$1.00	60 00	
McTaggarı & Ryan	Plumbers repairs in offices	17 55	
J. Uorriveau	Repairing chimney in carpenters' shop	12 <b>60</b> 16 <b>5</b> 0	
Mercotte	Order-book and advertising	17 00	
E. Desgagne	Chimney cleaners.	16 80	
St Lawrence Steam and	Chimney cleaners	30 68	
Navigation Co	Freight of supplies	12 68	
J. B. Pruneau	Postage	20 70	
O. Plamondon	Duty	8 22	
Pay-list	Advertising 12 months' salary as Extra Clerks, Store-keeper and	6 75 742 60	
P Rouilland	Wharfinger	30 94	
S. Bédard	Oil tanks, pumps, &c	224 90	
D. Kosa	Powder bags	14 65	
J. M. Tardivel	Painting and brushes Repairing tarpaulings, sails, &c	35 30	
J. Cunningham.,	Repairing tarpaulings, sails, &c	366 00	
Urawford & Sons	10.5000 tons of hay at \$10	105 90	
Savaga - Flandan	Stationery	82 75 10 00	
R Lafrance	250 boards	7 00	
W. Barbour	Cartage	8 25	
J. Carrol	Cartage	53 00	
L. Leclerc	Two jack screws	20 00	
M. E. Fitzhenry	Powder bags	4 22	
J. Robertson	Whitelead	2 25	
J. Mailins & P. Stephens.	Patroling and watching premises, 62 days, at \$1	62 00	
S. J. Shaw	Repairs to telescope	3 00 3 70	
J. B. Renaud	Wharfage	7 28 1	
Dinning & Webster	Galvanized buckets	8 00	
M. Whalen	Galvanized bucketsliending bags	3 70	
F. M. Dechène	Cloth	4 84	an 10# 9
			22,187 2
	BUOYS AND BEACONS.		
r. Parent	New buoys	1,298 45	
<b>r</b> . Routier	Mooring and chains	428 69	
H. Berubé	Salvage	12 00	
J. Gourdeau	do	12 00	
J. Boivin	Paint, iron, &c	154 76	
1. Robin	Placing buoys	1 40   53 00	
Eden & Beattie	do	35 50	
	Carried forward	1,995 80	94,817 0

	Brought forward	\$ 1,995	cts.	<b>\$</b> 94,817	cts.
J. Heppel J. J. Fox J. M. Tardivel H. S. Scott	Placing buoys	24 28 12	00 00 00 00 00 51 50	2,088	3 81
	Less error in September, 1877, account	1	i	96,905 1 \$96,904	30

WM. SMITH,
Deputy Minister of Marine and Fisheries

JOHN TILTON,
Accountant.

#### APPENDIX No. 10.

STATEMENT of Expenditure in connection with the Maintenance of Light houses, Fog-Whistles, &c., in New Brunswick, for the Fiscal Year ended 30th June, 1878.

	GENERAL ACCOUNT.	æ	ets.	1	æ	4,
		•		1	₽	C
Wm. Watt	New books, ink stand and paper		00	ł		
I. H. Phinney	Stove for Inspector's office	11	60	1		
1. King	Boating supplies and conveying Superintendent	150		1		
TT:::::= 4- 34-44	and despatches		80			
	Advertising	143	CO	1		
1. 1 nomas	12 months' salary as Assistant Light-keeper and	150	00	1		
Dames & Wasses	Telegraph Operator, Point Lepreaux		00	ł		
OWES OF EVALUS	Labour on stoves		92 75			
D Danie	Copying ink		90			
D Call	Wrapping paper Freight on coal Advertising in St. John Freeman		75	i		
N. R. Uall	Adventising in St. Tohn France			ļ		
A Pitamonald & Co	21 OEL mallong oil at 27a 32 2121 mallong at 24a		87	į		
H Uarding	21,051 gallons oil at 27c., 12,212½ gallons at 24c	8,614		i		
Consider Constal	12 months' salary as Agent	1,567		l		
tereiver General	Superannuation tax on Agent's salary		04	1		
	12 months' salary as Clerk.	588		i		
	Superannuation tax on Clerk's salary		00	ļ		
	12 months' salary as Inspector of Lights	1,176		l		
D Canala	Superannuation tax on Inspector's salary		00	!		
D. Mongley	5 months' salary as Keeper, Signal Station	201		l		
t. D. MCAPURUF.	Pointing oil tanks		00	l		
	10 months, cont of office to let Mon 1070		00	1		
v. 1. U. Muowies	12 MOULUS FOR OF OMICE to 18t May, 1070	200				
ames Cotter	Removing safe from rains Printing black receipts 12 months' travelling expenses.		00	ı		
T. W. Day	Printing Diack receipts	-	00	1		
and the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contra	12 months travelling expenses	123		1		
Sarnes & Co	Press, book and paper		80			
f Thomas	Press, book and paper		00	i		
4. 100mpson	Printing and stationery		04	1		
I. Unabb & Co	Chatter and Bustionery		10 53	ĺ		
omes Witchell	Stationery Paid sundry freight.		83	i		
Thomas Dobinson	Standard and all			ĺ		
THOMAS GODIUSOH	Storage on oil		70	}		
Will Cooper	Advertising in St. John Telegraph	90	00	1		
. C. Gregory	to pay 4,507 gartons on, cartage, etc., for North	1 011	40	1		
Dankain	shore Lights	1,211				
L Barbour	Painting boats.		00	l		
P. O	Gas account		95	İ		
	Tin pails		50			
ames onea.	Trimming 632 tons coal at 5c		60	i		
red. Robicheaux	Advertising		40	ĺ		
lampal Canana	Check-book		88	]		
lamas Vituball	Carting		50	:		
To Filia	12 months' travelling expenses	101		ļ		
V U Olima	Rent of Post Office box.		50	i		
chn Nument	Stamp press		00	<u> </u>		
Ulia b American	Carting		00	'		
omes Dem	do		00	[		
ames Dow	Lumber		50	l		
na Oniah	Danasin a		07	i		
ordin Dome & Co	Bunting		95	!		
T. MaControver	Desk and framing charts		00	!		
V P Downolds	Stationery, printing and postage stamps	284		i		
Leorge Nivon	Advertising	-	50			
Mad with & Cone	Twine, drawer lock, &c	. 6	54			
· mcarry of Duns	I WILLE, UIAWCI IUUK, GU	. 0	79			_
-	Carried forward	15 400	27			_
1	238	15,408	91			•••

STATEMENT of Expenditure in connection with the Maintenance of Lighthouses, Fog-Whistles, &c, in New Brunswick, etc.—Continued.

	Brought forward	\$ ets. 15,408 37	\$ cts.
	GENERAL ACCOUNT-Concluded.		
	Advertising		
Incent Miller	Making coal-bins	16 <b>45</b> 30 39	
J. R. Stone	Charts and expressage	9 60	
W C. Milner	Advertising.	.] 17 54	
	Covering spy-glass		
Montreal Telegraph Co.	Carting oil	5 33 31 06	
C. G. Berryman	Paint and oil	14 51	
J. Johnston	Inspector's postage account	6 97	
	Directory   Char's		
	Spy-glass		
E. Chanteloup	Argand burners	144 50	
H, S. King & Co	Subscription to Nautical Magazine	4 89	
	Freight of supplies		
Bowes, Campbell & Ellis	Stone and flittings for Marine Office	19 58	
	Freight		
	Coal for office		
J. & J. Hegan	Ironing boat	9 08	
J. R. Cameron & Co'	Laying carpet in Steamboat Inspector's room Burners and repairing reflectors	186 59	
Thomas Deblois	Subscription to news room	i 50 <del>0</del> i	
Wm Rizord	Expenses selecting site for wharf	20 00   70 00	
Wm. Wheten.	Amount paid Pilots for locating beacon light at	10 00	
	Richibucto Reach	l 14.00 l	
D. Long	Shelving for office Washing towels.	4 72	
M. Robinson	Basin for office.	4 00 4 60	
	Travelling expenses		
			16,192 38
	Beacon Ligh!.		
The state of	•		
Receiver General	12 months' salary as Light-keeper \$395 00 Superannuation tax on Keeper's salary.		
	·	400 00	
Timothy Clark	Boarding painters 64 weeks at \$3		
R. Barbour	Allowance for fuel, 1877-78	20 00   124 20	
Geo. F. Smith	Wire	4 14	
R. R. Cameron & Co	Chimneys, wicks and oil	29 85	
Wm Lowis	Paint and oil	5 65	
C, E. Harding	Lumber	4 00   11 18	
Geo. Nixon.	Glass Signal halyards, oars, life buoy, chain, etc	1 80	
T. McAvity & Sons	Signal halyards, oars, life buoy, chain, etc	209 42	
H. Kine	4½ days' labour repairing, at \$1.50 Boating supplies, etc	6 75   13 10	
U. G. Berryman	Glass, putty, lime, rope and oil.	73 <b>36</b>	
D. W. Clark	Repairs to bell house	87 73	
Snamper & Co	Rent of boat and repairs	13 50	
J. Woodley	Repairing lantern	39 71 12 00	
٠٠ لا Stenhen	Roat hire	9 50	
ROOK Hamilton	Whitewashing	9 75	
W. M. MCUOSKETV	Stationery	3 75	
	Painting	19 50	1,119 55
	Carried forward		17,311 93
,	239		

STATEMENT of Expenditure in connection with the Maintenance of Lighthouses, Fog-Whistles, &c., in New Brunswick, etc.—Continued.

		\$ cts.	\$ cts
	Brought forward		17,311 9
	Bliss Island Light.		
	12 months' salary as Light-keeper \$296 28 Superannuation tax on Keeper's salary 3 72	300 00	
C. G. Berryman Jarvis Clark	Work on barn and lumber	15 42 174 86 16 00 52 50	
John Stinson	Boat. Freight on boat Freight Stationery.	5 00 4 00 3 75	
•	Bathurst Light.		571 53
W. & G. Watt H. Baldwin	12 months' salary as Light-keeper	108 02 18 10 16 00	
P. Carroll	On account of repairs	100 00	242 12
	Beaver Harbour.	.	
Ezra Munro Receiver-General	12 months' salary as Light-keeper \$246 88 Superannuation tax on Keeper's salary 3 12	272 00	
Ezra Munro	Chimneys, wicks and oil	250 00 12 20 7 25 11 48 60 44 9 50 2 02 3 75 11 16 20 00	387 <b>8</b> 0
	Cape Enrage Light.	İ	
Receiver-General	12 months' salary as Light-keeper \$395 00 Superannuation tax on Keeper's salary. 5 00 Chimneys and wicks. Paint and oil	400 60 15 20 7 00 98 13 54 50	
V. S. Starratt	Repairs to lamps	2 00 19 00 3 75	599 <b>5</b> 8
	Caraquet Island Light.	1	
Receiver-General	12 months' salary as Light-keeper	200 00	
V. & G. Watt L. Young	Cotton, flannel and hardware	18 10 8 00	226 10
	Carried forward		19,339 06

STATEMENT of Expenditure in connection with the Maintenance of Lighthouses, Fog-Whistles, &c., in New Brunswick, etc.—Continued.

	Brought forward	\$ cts.	\$ cts.
			20,000 00
	Cox's Point Light.		
J. R. Cameron & Co	12 months' salary as Light-keeper	80 00 14 36	94 36
	Cassie's Point Light.		
Charles LeBlanc	12 months' salary as Light-keeper \$246 88 Superannuation tax on Keeper's salary 3 12	250.00	
T. McAvity & Sons Charles LeBlanc	Cotton, flannel, soap, polishing liquid, &c	250 00   19 63   18 15   11 60   41 00   2 80	343 18
	Cape Spencer Light.	<b>!</b>	
Receiver-General	12 months' salary as Light-keeper \$395 00 Superannuation tax on Keeper's salary 5 00 Chimneys, wicks and oil	400 00 36 50	
W. H. Thorne & Co T. McAvity & Sons Fred. Blacklock	Paint and oil. Soap and towels. Painting Lighthouse. Wood and carting. Paint and oil. Chimneys and oil. Carting oil.	2 50 54 02 18 70 21 60 8 71 40 20 2 50 12 00	
Fred. Blacklock	Cape Enrage Fog Alarm.	17 50	61 <b>4 23</b>
	12 months' salary as Engineer	400 00	
R. P. & W. F. Starr	Landing coal Carting coal. 50 tons coal, at \$2.50. Lumber. Carting and labour. Flag. 10 cords wood. Labour, freight and repairs to machinery.	6 00 39 50 125 00 12 50 38 16 6 00 40 00 76 95	<b>744</b> 11
_	Dalhousie Light.	į	
John Barbour	12 months' salary as Light-keeper	100 00 18 10 2 00 41 00 2 60	
			163 70
	Carried forward 241		21,298 64

# STATEMENT of Expenditure in connection with the Maintenance of Lighthouses, Fog-Whistles, &c., in New Brunswick, etc.—Continued.

	Brought forward	\$ cts.	\$ cts 21,298 64
	Escuminac Light.	<u> </u>	•
	12 months' salary as Light-keeper \$395 00   Superannuation tax on Keeper's salary. 5 00	400.00	
W. & G. Watt	Blind linen, towels, cotton, flannel, white lead, &c	400 00 61 95	461 95
	Escuminac Fog Aiarm.		
Thos. Phillips Receiver-General	12 months' salary as Engineer	409 00	
Thos. Philips James Nash R. R. Call	Paint, lead, &c	10 61 41 50 35 00 70 0	
	Fox Island Light.		582 11.
	12 months' salary as Light-keeper		
W. & G. Watt James Gray J. H. Phinney J. R. Cameron & Co	Paint, brushes, oil, &c  Repairing lantern  Stove pipe	0 70	362 <b>44</b>
	Fox Island Light (Lower).		302 22
Receiver General	12 months' salary as Light-keeper	200 00	
James (†ray	Towelling, flannel, polishing liquid, stove pipe, &c Lamps	17 00	<b>2</b> 57 <b>5</b> 0
	Fanjoy's Point Light.		251 50
J. R. Cameron & Co C. G. Berryman	12 months' salary as Light-keeper	20 25   1 40   11 65 ;	
	Grindstone Island Light.		119 45
John R. Stiles Receiver General	12 months' salary as Light-keeper \$395 00 Superannuation tax on Keeper's salary 5 00	400 00	
R. Cameron & Co R. Stevens McAvity & Sons Lex. Rogers	I year's rent of boathouse	24 00 9 50 416 60 50 86	
do	Repairing boatStationery	9 CO 3 75	943 48
	Carried forward24:2		24,025 57

### STATEMENT of Expenditure in connection with the Maintenance of Lighthouses, Fog-Whistles, &c., in New Bruuswick, etc.—Continued.

! •		\$ cts.	\$	cts.
	Brought forward		24,025	57
į	Gannet Rock Light.			
	months' salary as Light-keeper			
J. R. Cameron & Co	eight on water numeys and wicks	840 00 312 00 82 65 78 25 4 00 371 21 109 86 37 50 47 30 80 00 3 75	1,966	52
	Green Head Light.			
J. W. Williams	months' salary as Light-keeper	80 00 8 70	88	70
	Grant's Beach Light.			
James Gray. Re	months' salary as Light-keeper	100 00 32 20 41 00 5 30 4 00	182	50
	Grand Manan Fog Alarm.			
J. R. Cameron & Co. Ch W. H. Thorne & Co. Pai James Tatton. 20 J. M. Purdy. Lat John Ryan. Cal W. F. Nutter. Cal C. G. Berryman. Hal C. E. Harding. Lun A. Turner Fre. R. P. & W. F. Starr. 100 W. F. Nutter. Cal T. McAvity & Sons Iron Jas. Tatton. Bood John Bowes Lat John Bowes Lat John Ryan. Mai Geo. Tatton Can Jas. Tatton Cal Jas. Tatton Cal Jas. Tatton Ryan. Mai Geo. Tatton Dec. Jas. Tatton Reg. Reg.	months' salary as Light-keeper	700 00 4 00 16 15 15 00 62 00 85 00 25 00 189 65 13 50 6 00 300 00 27 50 212 86 24 50 7 25 21 00 61 25 80 00 250 00 14 60 3 75		
	1		2,135	01
	Carried forward242		28,398	30

Brought forward   28,398 30   Goose Lake Light   Goose Lake Light   D. J. B. Robicheaux   12 months' salary as Light-keeper   \$246 88   do			1	
D. J. B. Robicheaux			\$ cts.	•
D. J. B. Robicheaux		Brought forward	•	28,398 <b>3</b> 0
2 months in-rease in salary, May and June, 1878   8 32   Superannuation tax on Keeper's salary   2 96   20 50	i	Goose Lake Light.	1	
Receiver General   Superannuation tax on Keeper's salary   2 96   258 16   20 50	D. J. B. Robicheaux2	2 months' increase in salary, May and		
### Table   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   St	Receiver General		258 16	
Crindstone Island Fog Alarm.   20 00	W. & G. Watt	Flannel, towels, etc		278 66
1. K. Stiles   Cordwood, \$1.00; carting coal; \$5.32   375     2. L. McCoskery   3 76     3. H. Crosby   Tavelling expenses   8 50     3. M. Smith   10   10   10   10     3. M. Smith   10   10   10   10     40   11   16   17   16     57   75   17   16     57   75   17   17     58   18   18   18     59   19   19   10     50   10   10   10     50   10   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10   10     50   10     60   10   10     60   10   10     60   10   10     7		Grindstone Island Fog Alarm		210 00
H. McLaughlin	J. L. McCoskery	Cordwood, \$7.50; carting coal, \$53.32	125 00 60 82 3 75 8 50 17 66 57 75	3 <b>33 48</b>
Superannuation tax on Keeper's salary   5 00   400 00   J. R. Cameron & Co.   Chimneys, wicks, oil, etc.   24 20   9 45   17		Head Harbour Light.	1	
John Dutch	Receiver General   S	Chimneys, wicks, oil, etc	24 20 9 45 23 76 13 00 2 50 265 35 68 09 6 00 876 18 122 49 173 74 15 91 30 53 11 05 25 00 13 00 27 00 4 00 5 80 13 00 19 93 3 75	2,179 73
	S   Receiver General	2 months' salary as Light-keeper	17 85 41 00	261 55
244		Carried forward		31,451 73

	Brought forward	\$ cts.	\$ cts. 31,451 72
	Hillsborough Wharf Light.	1	
John Beatty Abram Forbes	9 months' salary as Light-keeper	. 56 25 18 75	
	Hendry Point Light.		75 00
Joseph Hendry J. R. Cameron & Co	12 months' salary as Light-keeper	. 80 00 9 33	
	Jourimain Light.		89 33
A. W. Bent Receiver-General	12 months' salary as Light-keeper \$246 88 Superannuation tax on Keeper's salary . 3 12	<b>95</b> 0 00	
T. McAvity & Sons	Polishing liquid, cotton, flannel, soap, etc	.i 70.90 l	
	Lightship, Miramichi.		1,364 88
Geo. Rogers	5 months' salary as Light-keeper	202.08	
James Gray.  J. H. Phinney.  Angus McEachern Geo. Savoy W. J. Fitzpatrick James Mitchell James Walls.  James Mitchell James Mitchell James Gray T. Daley Call & Millar R. R. Call Wm. Ashford Mitchell Martin. T. Daley	Paint, rope, oil, etc	7 50 2 45 20 00 20 00 5 00 10 00 10 00 10 00 20 40 33 91 218 64 30 00 19 75 2 00 20 00 86 87	1,301 73
	Machias Seal Island Light.		
li li	12 months' salary as Light-keeper	500 00	
J. Pike	Boating Chimneys, wicks and oil Salary as Engineer to 26th August	15 00   25 90	
			3,818 80
	Carried forward 245		38,101 <b>46</b>

		\$ cts.	\$ cta
	Brought forward		38,101 46
	Miscou Light.		
Robert Rivers	12 months' salary as Light-keeper 493 72 Superannuation tax on salary of Keeper 6 28	<b>500.00</b>	
Robert Rivers. J. R. Cameron & Co T. McAvity & Sons James Mitchell Robert Rivers Robert Rivers Robert Rivers	Cotton, flannel, polishing liquid, soap, &c	15 67 14 00 60 36 3 00 8 50 15 90 12 30	<b>68</b> 8 1 <b>3</b>
	Middle Island Light.		
W. & G. Watt.	12 months' salary as Light-keeper	300 60 17 25 10 80	328 05
	Machias Seal Island Fog Alarm.		
	12 months' salary as Engineer		
G. W. Meloon.  do  Isaac Wilder.  J. N. Purdy.  Hugh Belmore C. G. Berryman. R. P. & W. F. Starr.  T. McAvity & Sons. G. W. Day.  J. L. McCoskery.	Boating supplies during the year.  Freight on lathe 5 tons coal and freight.  Landing coal 18 cords wood at \$8.00.  Hardware, force pump, soap, wall paper, &c 200 tons coal at \$3.00.  Turning lathe and tools, \$300; boiler tubes \$171.  Advertising in Christian Visitor.  Stationery.  Shingles, iron and cement.	18 97 73 50 15 00 55 50 37 00 144 00 114 03 600 00 471 00 1 00 3 75	<b>2,</b> 05 <b>4</b> 11
	Miscou Fog Alarm.		
Receiver-General.  John Shark T. McAvity & Sons Robert Rivers do	12 months' salary as Engineer	300 00 10 00 87 61 130 00 39 77 8 90	576 <b>28</b>
Detrick Tomore	Mark's Point Light.		
J. R. Cameron & Co W. H. Thorne & Co	12 months' salary as Light-keeper	80 00   11 75   8 15   12 73	112 63
	Carried forward 246		41,860 65

413 14		Brought forward	\$ cts.	\$ cts. 41,860 65
J. R. Cameron & Co.   Chimneys, burners, &c.   12 43   W. H. Thore & Co.   Paint and oil.   5 25   Co.   Co.   Co.   Paint and oil.   5 25   Co.   Co.   Paint and oil.   5 25   Co.   Co.   Paint and oil.   5 25   Co.   Co.   Paint and oil.   5 25   Co.   Paint and oil.   5 25   Co.   Paint and oil.   5 25   Co.   Paint and oil.   5 25   Co.   Paint and oil.   5 25   Co.   Paint and oil.   5 25   Co.   Paint and oil.   5 25   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   6 3 12   Co.   Paint and oil.   7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Musquash Island Light.	l i	
Robt McMann	J. R. Cameron & Co	Chimneys, burners, &c	12 43   5 25   3 30	110 53
J. R. Cameron & Co.   Chimneys, wicks and oil.   9 24		McMann's Point Light.	!	
R. Buzza	J. R. Cameron & Co	Chimneys, wicks and oil	9 24 63 12	170.08
N.   Cameron & Co.   Chimneys, wicks and oil.		No Man's Friend Light.		170 67
Wm. Morrison         12 months' salary as Light-keeper         7\$148 12           Receiver-General         Superannuation tax on Keeper's salary         188           W. & G. Watt         Cotton, hardware, rope, soap, &c         24 92           Thos. Savoy         Painting         12 00           Wm. Hillman         Silvering reflector         2 00           John Morrissey         Freight and carting reflector         5 25           John Nixon         Salary from 10th February, 1878, to 1st April, 1878         27 40           Coating oil         1 00           J. R. Cameron & Co         Burners and chimneys         6 40           Oak Point Light, St. John River         80 00           J. R. Cameron & Co         Chimneys, wicks and oil         9 24           J. R. Cameron & Co         Chimneys, wicks and oil         9 24           J. R. Cameron & Co         Chimneys, wicks and oil         9 15           J. Coughlan         12 months' salary as Light-keeper         73 33           J. Coughlan         12 months' salary as Light-keeper         100 00           W. & G. Watt         Lamps         22 88           J. Coughlan         Carting oil and reflectors         3 00           Wm. Sinclair         Boat and oars         4 00           <	J. R. Uameron & Co T. McAvity & Sons	Chimneys, wicks and oil	8 79 4 20	10 <b>4 33</b>
Superannuation tax on Keeper's salary		Neguae Light.	}	
Catton, hardware, rope, soap, &c	Wm. Morrison	12 months' salary as Light-keeper	150.00	
John Nixon	W. & G. Watt	Cetton, hardware, rope, soap, &c	24 92 12 00 2 00	194 17
John Nixon		Negro Town Point Light.		
Chas. Theal	go!	Salary from 10th February, 1878, to 1st April, 1878	1 00	34 80
Oromocto Shoals Light.   11 months' salary as Light-keeper	į.	Oak Point Light, St. John River.		
J. K. Hazen.       11 months' salary as Light-keeper       73 33         J. R. Cameron & Co.       Chimneys, wicks and oil.       9 15         82 48         Oak Point Light, Miramichi.         J. Coughlan.       12 months' salary as Light-keeper       100 00         W. & G. Watt.       Cotton, swansdown, flannel, soap, etc.       37 29         James Gray.       Lamps.       22 88         J. Coughlan.       Carting oil and reflectors.       3 00         Wm. Sinclair.       Boat and cars.       41 00         John Morrissey.       Carting reflector.       5 25         Call & Millar.       Treight on boat.       213 42	Chas. Theal	12 months' salary as Light-keeper		89 24
J. K. Hazen.       11 months' salary as Light-keeper       73 33         J. R. Cameron & Co.       Chimneys, wicks and oil.       9 15         82 48         Oak Point Light, Miramichi.         J. Coughlan.       12 months' salary as Light-keeper       100 00         W. & G. Watt.       Cotton, swansdown, flannel, soap, etc.       37 29         James Gray.       Lamps.       22 88         J. Coughlan.       Carting oil and reflectors.       3 00         Wm. Sinclair.       Boat and cars.       41 00         John Morrissey.       Carting reflector.       5 25         Call & Millar.       Treight on boat.       213 42		Oromocto Shoals Light.	į	,
J. Coughlan       12 months' salary as Light-keeper       100 00         W. & G. Watt       Cotton, swansdown, flannel, soap, etc       37 29         James Gray       Lamps       22 88         J. Coughlan       Carting oil and reflectors       3 00         Wm. Sinclair       Boat and oars       41 00         John Morrissey       Carting reflector       5 25         Call & Millar       Freight on boat       4 00	J. K. Hazen	- !		82 <b>48</b>
Cotton   Swansdown   fiannel   soap   etc.		Oak Point Light, Miramichi.		
	James Gray	Jotton, swansdown, fiannel, soap, etc	37 29 22 88 3 00 41 00 5 25	213 42
		Carried forward	-	42,860 29

		\$ cts.	\$ cta
	Brought forward		<b>42,86</b> 0 <b>2</b> 9
Jas. Wilson	Partridge Island Light.  12 months' salary as Light-keeper	400 00 32 00 66 13 16 00 2 81 29 06 25 40 4 18 1 60 3 00 3 75	12,000 23
D. L. Hutchinson	Repairing clock	1 25	
John Smith	Point Lepreaux Light.  12 months' salary as Light-keeper	400 00 2 50 14 95 11 45 4 20 47 18 7 00 28 00 52 50 47 50 11 80 3 50 3 75 2 25	636 5
Receiver-General  W. & G. Watt  James Gray  J. R. Goggin  Thos. Lewis	Portage Island Light.  12 months' salary as Light-keeper	200 00 17 37 17 00 2 05 	236 42
Gilmore, Rankine & Co	Wire rope	26 60 20 00	176 75
	Carried forward		44,499 22

	Brought forward	\$ cts.	\$ cts. 44,499 22
Receiver-General	Point Lepreaux Fog Alarm.  12 months' salary as Engineer	19 82 66 95	1,179 18
Receiver-General	Passamaquoddy Bay Light.  12 months' salary as Light-keeper	7 50 12 80 5 00 71 88 5 00 2 25 13 50 4 00 87 29 17 70	709 93-
J. R. Cameron & Co W. H. Thorne & Co C. G. Berryman H. Burges Geo. Nixon W. A. Dunham	[ Point Midjic Light.  12 months' salary as Keeper	200 00 29 70 14 15 32 75 18 50 9 06 4 00 3 75	311 91 46,700 24

		\$ cts.	\$ ct
	Brought forward		46,700 24
	Pokemouche Light.		
	. 12 months' salary as Keeper		
James Gray	Paint, oil, soap, cotton, &c	54 26 6 00	
Jehn Murphy	Horse hire	. 14 00	334 26
	Pea Point Light.		
	Salary as Keeper, from 4th July, 1877, to   30th June, 1878 \$244 89		
	One quarter's superannuation tax on Keeper's salary 0 78	245 67	
Chas. King	Freight	7 00	
John Woodley Dewar & O'Brien	Painting boat  Boat  Paint, brushes and alcohol	52 50 17 71	326 <b>88</b>
	Point du Chêne Light.		
Eevenor & Co	Repairing lantern		14 85
	Partridge Island Fog Alarm.		
Mas. Wilson	12 months' salary as Engineer	400 00	
Vas. Wilson	Cleaning well, drawing water, &c	17 00 4 50	
. R. Cameron & Co	Chimneys and wicks	35 50	
W. H. Thorne & Co	Scows and landing coal	15 65	
Gregory	Towing scowsdo	42 00 8 00	
J. G. Blizard	Lumber	11 98 5 00	
. McAvity & Sons	Carting water	254 75	
L. King	Carting coal, boating	1 124 80 1	
P. & W. F. Starr	120 tuns coal, at \$3.00	360 00 4 00	
Vm. Lewis	Car wheel	4 50	
llan Bros	New valve Boiler felt	9 50   7 65	
arris Allan	Tin and thimbles	11 58	
. G. Gable	Repairs to whistle	20 96 1 80	
Vm. Lewis	Iron screw bolts Stationery	7 99   3 75	
	~		1,556 76
*	,		1,000

		\$ cts.	\$ ota
	Brought forward		48,932 99
	Quaco Light.		
Wm. Love Beceiver-General	12 months' salary as Light-keeper \$395 00 Superagnuation tax on Keeper's salary . 5 00	400 00	
Hevenor & Co	Chimneys, wicks and oil Paint, oil, etc	10 10 65 80 6 80 48 00	534 45
!	Richibucto Light.	}	
	12 months' salary as Light-keeper	185 00	
W. & G. Watt James Gray	Swansdown, cotton, flannel, soap, etc		208 29
	Robertson's Point Light.		
J. R. Cameron & Co	12 months' salary as Light-keeper	8 96	93 86
	Swallow Tail Light.		
Receiver-General	12 months' salary as Light-keeper	400 00	
J. N Purdy	Chimneys, wicks and oil	16 00 6 25	ų.
Geo. Nixon	Powder, waste, soap, hardware, varnish, etc Room-paper	347 44 8 76 25 25 3 75	
1			876 <b>89</b>
; 	St. Andrew's Light.		i
Geo. Pendlebury	12 months' salary as Light-keeper \$296 28 Superannuation tax on Keeper's salary . 3 72	300 00	
W. H. Thorne & Co	Preight of supplies	6 65 14 50 26 90	
John Pendlebury Estate Wm. Whitlock	Landing coal  Flag, paint, brushes, etc	1 96 53 1	
Geo. Pendlebury	Allowance for fuel, 1878	20 00	503 43
	Carried forward		51,149 73

·		\$ cts.	\$ ct
	Brought forward		51,149 7
	Shediac Island Light,	İ	
M. Robinson Receiver-General	12 months' salary as Light-keeper \$246 88 Superannuation tax on Keeper's salary 2 96	249 84	
W. & G. Watt	Increase of salary for May and June	8 32	281 94
:	Sand Point Light.		
J. R. Cameron & Co	12 months' salary as Light-keeper	80 00 8 88 20 55	
	Southern Wolf Light.		109 43
Edward Snell	12 months' salary as Light-keeper \$493 72		
J. R. Cameron & Co E. Snell	Superannuation tax on Keeper's salary 6 28  Chimneys, wicks, etc	32 00 239 26 20 00 9 62 160 00	984 01
	Shippegan Light.		
Receiver-General  W. & G. Watt G. Robicheaux  James Mitchell Russell & Mallett William Taylor J. H. Phinney  Wm. Sinclair	12 months' salary as Light-keeper	240 00 20 95 9 00 3 00 20 00 6 00 10 17 41 00	360 12
John McKay Receiver-General	Sheldrake Island Light.  12 months' salary as Light-keeper	300 00	
James Gray J. H. Phinney James Gray.	Cotton and rope	22 14 10 55 0 60 13 28 2 00	348 57
O. G. Berryman	12 months' salary as Light-keeper	80 00 2 85 3 75 11 50	
			98 10
l	Carried forward		53,331 90

	Brought forward	\$ cts.	\$ cts. 53,331 90
	South Tracadie Light.		
-	15 months' salary as Light-keeper, from 1st April, 1877, to 30th June, 1878		
J H. Phinney Wm. Ferguson Wm. Sinclair	Oil and glass Oil tanks Moving Range Light Boat and oars Freight on boat	28 00 14 00 41 00 4	320 57
	Tracadie Light.		320 01
Wm. Archer	12 months' salary as Light-keeper \$237 00 Superannuation tax on Keeper's salary 3 00	240 00	
J. H. Phinney Wm. Archer	Cotton, flannel, etc	20 59 21 15 10 00 30 00	321 7 <b>4</b>
	Tabusintac Light.		
Thomas Savoy	12 months' salary as Light-keeper \$197 52 Superannuation tax on Keeper's salary. 2 48	200 00	
W. & G. Watt	Paint, oil, hardware, etc	31 28	231 28
	Wilmot's Bluff Light.		
J. R. Cameron & Co	12 months' salary as Light-keeper	80 00 9 06 2 05	91 11
Less Refunds	Amount paid Philip Robicheaux		54,296 60
	do —Hevenor & Co 23 40		75 70
	Total		54,220 90

*	1	)			_
	BUOYS AND BEACONS.				
	GENERAL ACCOUNT.		cta.	•	cte
Walter Tax	ì	j ·	- 1	Ф	CLE
	To pay for labour, chains and anchors		00		
		<del> </del> -	—- j	291	. 50
	Bathurst.	l	,		
P. J. Hachey	Boat hire, placing and lifting	79	n!		
L. Arseneau	Pickets, and placing	30	00		
D. Arseneau	Shifting buoy	1 3	3 00		
H. Hachey & Co.	Paint and oil		20		
		ļ`		137	81
	Buctouche.		i		
John Keswick	Erecting two beacons	200	00		
do	New buoys; lifting and placing buoys	77	00	277	ω.
*	Bell Buoy.		[	211	•
W. Tamin	New spring, rope and repairs	90			
Jas. L. Dunn	Chain and anchor shackle	125	50 90		
Alex Duff	Towing Tide work		00		
	Placing can buoy		00		
T McAvity & Sons	Rope	16	51		
A. Alng,	Watching and picking up buoy	39		33 <b>3</b>	91
	Bay Verte.				
Jacob Silliken	New buoys			49	00
	Campbellton.		,		
Damiel Oliver	j	l			
Daniel U Meele	Buoy chain, and placing		j	153	50
	Caraquet.	ì	Ì		
Pater De Grace	Placing and repairs	107	31		
B. Paulin	Lifting buoys		00		
				186	31
	Cocaigne.		i		
Thomas Irving	Placing and lifting	•••••••••••		90	85
	Dalhousie.		1		
Duncan McNeil	Placing and lifting buoys		00		
Andrew J. Wallace	do do		00 83		
				124	83
	· Dorchester.				
William Wood	Lifting and placing buoys	**********		43	00
	Carried forward		-	1,687	21
	264	*****	;	7,001	

	Brought forward	\$ cts.	\$ ets 1,687 21
	BUOYS AND BEACONS—Continued.		
	Dipper Harbour.	'	
H. Belmore	Buoy, and placing		10 00
	Grand Manan.	İ	
E. Gaskill	Placing and lifting	•••••	48 62
	Grand Lake.		
Wm. Lewis	Buoy and chains	80 48	
	Stones, buoy, and placing		
F. J. Purdy	Buoys, and placing	38 50	
			230 98
	Grindstone Island.		
William Wood	Placing buoys		30 00
	Hopewell.		
do	Lifting buoys	***************************************	26 00
	Harvey.		
Jas. McAlmon	Painting	•••••	<b>5</b> _00
	Meramichi.		
James Walls	Lifting and placing	240 00	
Angus McPherson	rlacing buoys	22 00	
Illen Makachan	Lifting and placing buoysPicking up buoy	231 00 16 00	
ames Currieii	Stones for buovs	45 00	
Angus McEachran	Placing horseshoe buoyPicking up buoys	8 00	
Call & Millar	Picking up buoys	60 00 129 49	
T. Betson	Wherfuge	11 00	
Robert Rogers	Hoop-iron and chain Wharfage.	10 00	
"Щ. Mnn Andrew Hav	New bullys	111 00	
ames Rae	Iron work	81 75	965 24
	Musquash.		
I. Belmore	Buoy, and placing	30 00	
J. G. Berryman	Paint and oil	6 83	36 88
	Reed's Point Lamps.		
R. Barbour	Painting and glazing	26 44	
WID. Lewis.	ron ladder	9 80	
	Coppersmith's repairs	81 40	117 64
i		ļ <del></del>	0 150 57
i	Carried forward	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2,156 57

		\$ cts.	\$ cts.
	Brought forward		3,156 57
	BUOYS AND BEACONS—Continued.	i i	
	Richibucto.	İ	
John Jardine  James Long M. Fitzpatrick  Louis Nelson  Jas. Lawson  John Brait  Wm. Hudson  Alex. Roxborough	Lifting buoys Stones and painting Placing buoys Blacksmiths' work 3 spar buoys Scraping and painting Chain Paint and oil. do Painting and placing	4 00 50 00 3 72 1 40	281 02
	Shippegan.		
Peter DeGrace	Repairing, placing and lifting		109 98
	Shemogue.		0.4 50
John Avard	Spar buoy, chain and placing	**** **** *****************************	84 50
	Shediac.		
Edward White T. McAvity & Sons S. T. White	Lifting and placing buoys	86 00 29 07 210 00	325 07
	St. Andrews.		
John Bolson	Ironing and placing buoy		34 87
	St. George.		
John Bolson	Painting and placing Irouing and placing Lifting buoys New buoys and placing Placing Bolts and chain Painting and placing	59 41 14 70 165 87 25 00	607 23
	0. 0. 1		001 23
Ohan Wannii	St. Stephen.		<b></b> ^^
Unas. Young	Lifting buoys		32 00
	St. Croix River.		
Chas. Young	New buoys and placing		99 99
	Carried forward		4,731 23

Brought forward \$ cts.	<b>\$</b> 4,731	cts. 23
BUOYS, AND BEACONS-Concluded.	,	
Tracadie.		
Vital Arsenault Buoy, and placing buoys	92	30
Less—Refund amount deducted from Thomas White's bill	4,823 55	53 23
Total	4,768	30

#### RECAPITULATION.

Maintenance o do	f Lighthouses, Fog-Whistles, &c	\$54,220 90 4,768 30
	Total	58,989 20

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

#### APPENDIX No. 11.

STATEMENT of Expenditure on account of Maintenance of Lighthouses, Steam Fog-Whistles, &c., in Nova Scotia, for the Fiscal Year ended 30th June, 1878.

1	1		
FOG-WHISTLES.			
Brier Island.	\$ ct	s. \$	cı
Supplies	24 50		
Roller blate	172 28	7	
Wharfage for coal.	23 70		
Cotton duck			
Repairing steam nump, engine, etc.			
Brass tubes			
Freight of supplies			
Dataly	493 76	,	ο.
Cape d'Or.		1,30	U -
Wages as Assistant			
Building road		1	
Lumber	4 50	1	
Engineers' wages	82 30		
		1	
		i	
Building road	200 00	ł	
supplies for repairs	111 08		
Repairing boiler		ł	
Scowing coal		[	
Brick and lime	24 30	ł	
	1,395 00	į	
		İ	
Mason work	37 25	i	
Freight supplies	3 50	1	
Oil shimpion etc		i	
Supplies		1	
Store and pipes	23 00	!	
	41 39		
)	4 10	3,449	49
		l	
		1	
Globe valves			
Supplies	100 36		
	21 00		
		•	
Fitting pipe	2 50	}	
Shovelling and trimming coal	41 65	]	
	126 50		
JUM	301 87	891	44
1	•		
	Brier Island.  Supplies	Brier Island.	Supplies

		\$ cts.	\$ cts
	Brought forward		5,641 35
	Ziougue ioi waraninininininininininininininininininin		
	FOG-WHISTLES—Continued.		
	Cranberry Islan 1.		
	·	i	•
	Board boilermaker	12 60 38 00	
H. H. Fuller & Co	Hardware, etc	31 02	
	Canvas and twine	6 50 12 92	
D. M. Browne	Labour landing coal.	17 00	
A. McKay	Repairing boiler	124 15	
R. J. Hart.	Coal	36 93 161 07	
Jas. Hanlan	Salary	444 40	
			887 59
*	Digby.		
m .v			
	Machinists' fittings	557 07 18 69	
Burrell, Johnson & Co	Blacksmiths' work		
Jas. Hayden	Repairing boiler	119 25	
W. E. Ellis	do	28 50	
n. n. Fuller & Uo	Cotton duck	2 00	876 67
			0,00
	Sable Island.		
Macdonald & Co	Gauge glasses		4 50
	Sambro'.		
Alfred Gilkie	Boarding Engineer and Assistant	247 00	
do	do workmen	20 50	
N. Pholon	1 month's wages as Assistant	20 83 90 00	
Geo. Adams	Repairing winch	11 85	
do	Altering trolly wheels	8 50	
qo	Steam-whistle repairs etc	170 15	
E. Albro & Co	Wood	63 00 2 50	
45. Okinner	Salary as Engineer	123 44	
Moyes	Engineer and Assistant's wages	577 82	
H. H. Fuller & C.	Travelling expenses	5 00 35 63	
oake Melvin	Sand barrels and convering	5 90	
as. Duller	'Kricks '	36 00	
" D. Balson	Recording steem genge	97 50 36 00	
	Cement	27 60	
" · NOCHE, this	[Line]	316 75	
. w (10001)	Rent of land	0 24 1	
M. Phelan	Manager Landing coal.	73 20 28 22	
L. Morric	Travelling expenses	2 75	
		23 00	
- Drowne	Conveyance EngineerLabour landing coal	8 00   16 00	
		0 80	1
eo. Adams	Repairs to tank	210 34	2,252 52
			<del>_</del>
i	Carried forward		9,662 63
9 1-1	259		

	1	1 0 1	
	Brought forward	\$ cts.	9,662 6
	FOG-WHISTLES-Concluded.		
	St. Pauls.	!	
R. Muirhead	Repairs to boiler Salary Repairs to buildings. Tube brushes Engineers' supplies Patterns and pump-valves Memorandum books. Felt and canvas.	493 76 358 00 11 10 202 91 9 40 3 40	1 <b>,424</b> 49
	Seal Islan i.		
do H. H. Fuller & Co Burrell Johnson W. Roche, jun	Lumber and hauling coal Wood. Supplies Boarding workmen Salary	36 00 27 96 4 00 23 00	708 77
	Yarmouth,		
do H. H. Fuller & Co N. K. Clements	Repairs Labour on coal Teaming stone for coal-shed Hardware, etc Wood Repairs to buildings	28 50 1 119 25	752 <b>2</b> 0
	Total Fog-Whistles		12,548 09
do Edward Roche	Superintendent of Lighthouses.  Travelling expenses	50 00 294 00 270 25 1,192 33	1,806 58
	lighthouses.		•
J. Findlay	Amet Island.  Oars  Boat paddles  Freight on boat	13 60	
H. H. Fuller & Co Henry G. Bennett	Boat nails	1 71 493 76	513 07
·	Annapolis.		213 01
W. E Ellis do	Hauling supplies	12 00 795 00	807 00
	Apple River.		
H. H. Fuller & Co A. McKay James Tate	Cement and canvas	12 13 9 67 375 28	297 08
	Carried forward		3,523 73

	Brought forward	\$ cts.	\$ cts 3,523 73
	LIGHTHOUSES—Continued.		0,020 10
	Arichat.		
C W'	)	14 20	
C. Coste	Carpenters' work	246 88	261 08
	Argyle.		
	Glass Blinds	104 00	
H. H. Fuller & Co	Zinc and tacks	3 07	
H. H. Hamilton	Building boathouse	130 00 315 64	
			584 87
	Barrington.		
J. S. Smith	12 months' salary as Light-keeper	375 28 10 20	
J. S. Smith	Stove and pipes	19 24	
			404 72
	Barrington Light-Vessel.		
J. R. Kenny	12 months' salary as Light keeper	496 24	
E. Albro & Co	Glass	0 80	
W. Robertson	Repairing lantern	2 20	
R H. Cogswell	Clock	5 00	
J. R. Kenny	Cleaning and painting	83 00	620 64
	Beaver Island.		
J. W. Hall	9 months' salary as Light-keeper	296 25	
treo. Adams	Repairs to lantern	96 49 98 75	
Unance Bros. & Co	Plate-glass	196 09	
ner Majesty's Customs	Blinds	4 48 35 15	
J. H. Balcom	Boat	22 00	749 21
	Betty's Island.		
P. Christian	12 months' salary as Light-keeper	493 76	
"'I F. Uhrierian I	Carting oil	12 <b>0</b> 0 29 10	
E. Moseley.	Renairs to Lighthouse, etc., and travelling ex-		
H. H. Fuller & Co	penses of workmen	327 57 9 77	
P. Christian	Board of workmen	93 71	965 91
	Bir í Islan l.		
Angus Ross	12 months' salary as Light-keeper	395 00	
u. H. Euller & Co	Locks, etc	1 60 1 21 20 1	
Angus Ross	Repairs to roof, painting, etc	59 00	475 80
		-	7,585 96
i	Carried forward	******	1,000 00

	Brought forward	\$ ets.	\$ cts 7,585 96
	LIGHTHOUSES—Con!inued.		1,505 50
	Black Rock.	] 	
James Robinson do	12 months' salary as Light-keeper	355 <b>52</b> 22 <b>0</b> 0	377 52
	Black Rock Point.		
Donald Morrison	12 months' salary as Light-keeper		345 64
	Boar's Head.		
J. C. Oland P. Grant & Co	12 months' salary as Light-keeper	5 14	
H. H. Fuller & Co	Dynamite	1 35	413 49
	Bon Portage.		
Arthur Wrayton	12 months' salary as Keeper	••••••	345 64
	Brier Island.		
H. H. Fuller & Co J. Suthern	12 months' salary as Light-keeper	454 28 4 95 8 50 11 16	
			478 89
	$Brooklyn\ Pier.$		
Joseph Gardner	Attendance as Light-keeper		182 5)
	Burn! Coal.		
Wm. Faulkner	12 months' salary as Light keeper		246 83
	Canso Harbour.		
Thos. Langley do	12 months' salary as Light-keeper Painting, \$12; boat, \$13	197 52 25 <del>0</del> 0	222 52
	Canso.		222 00
U. H. Whitman J. Walker	12 months' salary as Light-Keeper	493 76 9 95 40 43	
J. 22. 500 WOLL OF CU. 10,000	50010 prpe: amai:	11 10	555 24
	Cape George.		
Norman Murray W. Livingston	12 months' salary as Light-keeper	197 52 4 45	
Norman Murray	Expenses on the same	11 90	213 87
l	Carried forward		10,968 15

		\$ cts.	\$ cts
	Brought forward		10,968 15
	LIGHTHOUSES—Continued.		
	Cape Sable.		
Isaac Doane	12 months' salary as Light-keeper		794 00
	Cape North.	ļ	
J. McKinnon	12 months' salary as Light keeper	395 00	
	StoveLabor on supplies	25 00 4 00	484.00
	Cape St. George.		424 00
Davil Condon	12 months' salary as Light-keeper		474 00
Davis Condon	12 months sainty as Dight-Acepet		414 00
	Cape LeRonde.		
Charles Lattimore	12 months' salary as Light-keeper	296 28 24 75	
			321 03
<b>1-</b>	Cape St. Marys.		
Maturin Robichau do	12 months' salary as Light-keeper	493 76 16 80	
			510 56
Alex Muses	Carribou Island.	F207 00 1	
(10	12 months' salary as Light-keeper	139 60 5 10	
40	Hauling oil		539 70
	Carter's Island.		
· · Dentiev	12 months' salary as Light-keeper	197 52 4 20 1	
ackintosh & McInnis	Naiis, lead, canvas, &c	13 22 11 49	
vш. Ubadsev	Freight supplies. Carpenter's work, painting, &c.	2 9 <b>6</b> 36 91	
• .			266 24
	Chebucto Heal.		
- A. Fuller & Lin	12 mouths' salary as Light-keeper	395 00 0 90	
L. Ungrawell	Alarm clock Paid for conveying supplies	6 00   15 00	
•	j		416 90
dward Vone	Chester.  12 months' salary as Light-keeper	395 00	
do	Digging and walling well	19 00 2 00	
40	mauring out		416 00
	Carried forward		15,130 58

	Propert forward	\$ cts.	\$ cts
	Brought forward		15,130 58
	LIGHTHOUSES—Continued.		
	Cheticamp.		
P. Robin & Co	12 months' salary as Light-keeper	345 64 14 18 3 96	363 79
	Creighton Head.		303 13
S. Vigneau	12 months' salary as Light-keeper	197 52 6 00 9 82 21 15 8 60	243 09
	! Country Harbor.		
Geo. Adams J. Walker do J. A. McNeil	12 months' salary as Light-keeper	395 00 86 37 654 47 77 94 9 00 126 27	1 <b>,349</b> 05
	Church Point.		
P Grant & Co	12 months' salary as Light-keeper	197 52 1 60 1 00	200 12
	Cross Island.		
C. Burns	12 months' salary as Light-keeper	454 28 16 00 101 48 893 96	
G. E. Smith	Boarding workmen, &c	208 00	1,673 72
	i Devil's Island.		
J. Bowserdo do J. P. Mott	12 months' salary as Light-keeper	462 61 48 00 679 00 50 00 120 00 2 25 15 87 24 45 1 00	
R. S. Weatherbee Wm. Murray B. Fulker	house and building new one	38 00 29 00 4 75	
			1,539 43
	Carried forward		20,499 77

	Brought forward	\$ cts.	\$ cts 20,439 77
	•		20,400 11
	LIGHTHOUSES—Continued.		1
	Egg Islan 1.		
T. J. Fentley H. M. Customs Chance Bros. & Co. John Walker do	Salary	4 00 33 50 207 58 25 00 603 72	
E. Chanteloup	Repairs to boat	1,775 90 55 78 14 50 4 00 20 96	
do	Board mason	4 00	3, <b>25</b> 3 00-
1	Fish Island.		-,
P. Grant & Co	Salary Blinds Boat, painting lighthouse		308 32
İ	Flint Island.		308 32
A. E. Brown	SalaryStoring and shipping supplies	493 76 19 00 1 89	514 65.
	Fort Point.		
S. T. N. Sellon	Salary	237 00 14 42	251 42
	George's Island.	į	
onn Walker IR	2 months' salary as Light-keeper	150 00 46 43 13 40	209 83
	Grand Narrows.		
Stephen McNeil	2 months' salary as Light-keeper reight supplies, labor, etc	118 52 10 89	129 41
!	Creen Island.	i	
Fastonguay DompierreF. W. FishwickF. IcIntosh & McInnesL. Das. Senoir	R months' selary as Light-keeper	493 *6 99 72 10 00 5 40 56 47 15 43 131 70 31 50	8 <del>1</del> 3 98-
	Carried forward		26,010 38

		\$	cts.	\$	ct
	Brought forward			26,010	38
	LIGHTHOUSES—Continued.		İ		
	Gull Rock.				
r. J. Bentiey J. A. Stewart & Co H. H. Fuller & Co	12 months' salary as Light-keeper	17 0	00 00 00 72 90	420	6:
	Guyon Island.				
G. C. Newcomb	11 months' salary as Light-keeper	72 12 8 11	32 50 50 90 25 00		
c. J. Ingranam	To cords of wood at \$7		-	557	57
	Guysboro'.		!		
George S. Peart	12 months' salary as Light-keeper	•••••	••••	217	2
	Horton Bluff.				
	12 months' salary as Light-keeper	246 3	88 58	250	46
	Ingonish.				
P. Grant & Co J. Davison Doull Miller	12 months' salary as Light-keeper	9	76 15 36 00 00	443	21
	Ironbound.		-		
Enos Wolfe	12 months' salary as Light-keeper	*********		355	5
	Isle au Haut.			•	
E. Albro & Co	Salary from 20th Nov, 1877, to 30th June, 1878 Ensign Boat and outfit Carpenters' tools Cotton, towelling and flannel Stove and pipes Tools for making road	27 12 3 13	46 75 25 97 24 00 69	391	4
	Carried forward		_ -	28,646	

STATEMENT of Expenditure on account of Maintenance of Lighthouses, Steam Fog-Whistles, &c., in Nova Scotia, etc.—Continued.

		\$ cts.	\$ cts.
	Brought forward		28,646 56
	LIGHTHOUSES—Continue l.		
	Isaac Harbour.		
J. G. Sinclair. J. A. McNeil J. F. Taylor H. H. Fuller & Co H. W. Johnston C. W. Bigby do	12 months' salary as Light-keeper Alterations	92 63 1 40 7 00 1 50 5 50 5 55 126 90 6 00	51 <b>3 5</b> 0
	Jerseyman's Isle.		
J. N. & T. Ritchie P. Grant & Co	12 months' salary as Light-keeper	296 28 5 00 2 00 13 70	
:			316 98
D. McRae	Kidston's Island. 12 months' salary as Light-keeper		197 52
	La Have.	İ	
Wm Palmer W. H. Palmer	9 months' salary as Light-keeper	148 14 49 38	197 52
	Lingan Hea!.		
H. H. Fuller & Co James Quinndo	12 months' salary as Light-keeper	197 52 6 45 47 75 4 00 3 25	258 97
	Liscomb .		
P. Grant & Co H. H. Fuller & Co	12 months' salary as Light-keeper	345 64 68 00 5 95 0 88 15 50	435 97
į	Little Hope.	1	
J. P. Mott & Co	12 months' salary as Light-keeper	493 76 1 20 30 00 11 00	KUK OG
		-	535 <b>96</b> 31,102 <b>98</b>
•	Carried forward 267	· · · · · · · · · · · · · · · · · · ·	Jaj 1 7 2 0 0

		\$ cts.	\$ cts.
	Brought forward		31,102 93
	LIGHTHOUSES—Continued.	İ	
	Liverpool.		
J. P. Mott & Co	12 months' salary as Light-keeper	1 19 55 1	
			42C 05
I V	Louisburg.	1	
L. Kavanagn	12 months' salary as Light-keeper		454 28
	Low Point.	1	
Geo. Nunn	12 months' salary as Light-keeper	89 <b>88</b>	
J. G. Peters	Hauling supplies	2 00	1,376 45
	Lunenburg.		
J. K. Goold	12 months' salary as Light-keeper	296 28 0 24 6 00	302 52
			002 02
	Mc Kenzie's Point.		
W. R. Irish	12 months' salary as Light-keeper	158 00 2 56 5 00	165 59
ļ	Mahone Bay.		100 03
Abram Zinc	12 months' salary as Light-keeper	246 83 55 00	301 88
	Main-à-Dieu.		001 01
J. Burke T. J. Bently	12 months' salary as Light-keeper	296 28 7 20	303 48
	Margaree.		303 10
J. McTarlane	12 months' salary as Light-keeper		395 00
	Margaret's Bay.		
Albert Pearl H. H. Fuller & Co	12 months' salary as Light-keeper	493 76 5 20	
Albert Pearl	Painting.	13 00	511 96
	Carried forward 268		35,334 16

		\$ cts.	\$ cts.
	Brought forward		35,334 16
	LIGHTHOUSES—Continued.		
	Margaretville.	1	
H. H. Fuller & Co J. P. Halliburton Geo. Davison & Co	12 months' salary as Light-keeper	2 30 3 20	23 <b>9</b> 75
	Meagher's Beach.		
J. Walker J. P. Mott & Co S. Mosher D. Waddell Wm. Timmins R. H. Cogswell Lewis Wilson Edward Horn	12 months' salary as Light-keeper. Repairs to Lighthouse and buildings. Lime. Piles and driving. Stone. 20 cords wood, at \$5	58 51 2 00 647 29 624 00 100 00 2 50 44 55 50 00	2,3 <b>29</b> 25
	Meteghan.		2,320 23
L. C. Comeaudo	12 months' salary as Light-keeper	100 00	103 50
	Moser's Island.		
Henry Moser H. H. Fuller & Co	12 months' salary as Light-keeper	414 40 5 30	<b>449</b> 79
	Mullin's Point.		
H. H. Fuller & Co	12 months' salary as Light-keeper	148 13 5 50 8 91	162 54
	Negro Island.		
do	12 months' salary as Light-keeper	197 52 100 00 20 00 9 70	327 22
	North Canso.		
H. H. Fuller & Co	12 months' salary as Light-keeper	454 28 26 21 37 05 21 10	538 64
	Carried forward 269		39,484 76

	Brought forward	\$ cts.	\$ cts. 39,484 76
	LIGHTHOUSES—Continued.		,
	· Ouetique.		
C. Sampsondo	Painting, etc	345 64 18 90	364 51
	Parrsboro'.		
J. H. Newcomb H. H. Fuller & Co J. H. Newcomb	.   12 months' salary as Light-keeper	335 76 1 90 30 33	
	Peggy's Point,		367 93
Wm Crooks	24 months' salary as Light-keeper	74 06 271 58 <b>2</b> 20	317 94
	Petit de Grat.		211 2+
Feron Boudrot J. A. Stewart & Co	12 months' salary as Light-keeper	197 52 20 05	217 57
	Pictou.		
J. D. Lowden	12 months' salary as Light-keeper Lumber, hardware, rope, canvas, &c Erecting new lantern Board of carpenters	395 00 127 19 270 04 80 00 2 22	874 15
	Pictou Island.		
P. Grant & Co	12 months' salary as Light-keeper	454 28 2 50 40 00 46 40	<b>54</b> 3 1 <b>3</b>
	Point Tupper.		
J. McDonald J. A. Stewart	12 months' salary as Light-keeper	246 88 2 10	248 98
	Pointe Aconi.		
H. H. Fuller & Co	12 months' salary as Light-keeper	148 12 8 70 1 19	15 <b>2</b> 01
	Pomket Island.		150 01
Mrs. Atwater	12 months' salary as Light keeper	345 64 20 00 1 15	266 79
	Carried forward		366 79 42,974 11
	270		30,013 11

		1	cts.	\$	cts
	Brought forward			42,974	11
	LIGHTHOUSES—Continued.				
	Pope's Harbour.				
John Abrel	Oars	110	00 78 00 90 85 00 59	441	. 12
	Port L'Ebert.	!	İ		
J. McDonald Martin Lisk.	9 months' salary as Light-keeper		00	100	00
	Port Hood,		İ		
	12 months' salary as Light-keeper		48 00	280	48
Elson Perry do	Port Medway.  12 months' salary as Light-keeper		76 00	262	76
	Port Mouton.				
R. J. Smithdo	12 months' salary as Light-keeper	29 <b>6</b> 38	28 27	33 <b>4</b>	55
To a very	Port Williams.		İ	256	76
James M. Dunn	12 months' salary as Light-keeper	*********		. 250	10
	Pubnico.				
M. Amerodo	12 months' salary as Light-keeper	237 25	- 1	262	00
	Pugwash.				
J. A. Stewart & Co H. H. Fuller & Co	12 months' salary as Light-keeper	296 35 21 2 94	00 58 67	449	96
	Comind forward		-	45,361	
	Carried forward	•••••	•••••	20,001	• •

	Brought forward	\$ cts.	\$ cts 45,361 74
	LIGHTHOUSES—Continued.		
	Sable Island.		
H. H. Fuller	12 months's alary as Light-keeper	12 78	
J. A. Stewart & Co P. Grant & Co	43 cts, \$172 00; cartage, 85 cts  Stove, pipes and linings  Towelling, cotton, etc	330 45 18 15 6 66	
I P Mott	Lime	1 2 00 1	959 04
	Sambro.		
A. McKay	12 months' salary as Light-keeper	395 00 13 85 24 75 168 00 240 56 (	
Mackintosh & McInnis	do 50 do 40c	201 59 65 30	
P. Grant & Co	Tallow Blinds Zinc, &c Labour on new lantern, &c Castings, fitting dies, &c Lumber Coopering Boat Stove Freight supplies Uil-cloth Board of carpenters	21 62 6 45 10 30 69 12 10 61 3 64 1 1 40 50 00 9 00 7 00 6 25 54 00	
	2001 Q 0 000 F		1,426 44
	Sand Point.		
J. Davison	12 months' salary as Light-keeper	395 00 15 45 6 00	416 45
	Scatterie.	j	
John Davison	12 months' salary as Light-keeper	493 76 30 54 1 25 10 05 36 80 20 00	592 40
1	Seal Island.	İ	
T. C. Crowell	2 months' salary as Light-keeper		474 00
1	Carried forward		40,230 07

	Brought forward	\$ cts.	\$ cts 49,230 C7
	LIGHTHOUSES—Continued.		,
	Shelburne.		
	12 months' salary as Light-keeper	474 00	
	Stove back	1 50 18 40	
	Shelburne Harbour.		493 90
T A Stowart & Co	Stove and pipe	2 55	
	Salary to 20th Feb., 1878, date of Lighthouse being burnt down	126 74	
	Sissiboo.	120 14	129 29
B. Amero	12 months' salary as Light-keeper	197 53	
P. Grant & Co	Blinds	0 88   5 50	
	Repairs round lantern	5 87	209 77
	Spencer's Point.		209 11
W. Spencer	12 months' salary as Light-keeper	100 00	
do	Freight supplies	5 56	105 56
	St, Ann's.	·	1.00
A. B. Morrison	12 months'salary as Light-keeper	138 <b>24</b> 19 50	
T. Walsh & Co	Glass Ladder and stovepipe	3 20 9 62	
	Stoddart's Island.		170 56
Michael Wrayton	12 months' salary as Light-keeper	112 03	
H. H. Fuller & Co	Lantern	1 40	113 43
	St. Paul's.	ĺ	
H. H. Fuller & Co	2 months' and 2 days' attendance as Light-keeper	53 67 2 50	
R. Moselev.	Repairing machinery	152 00   382 50	
D. Moselev	Repairs to buildings	714 00	
G. Adams.	Patterns, clutches, pinions, &c	35 26	1,370 93
	Sy Iney Bar.	i	1,010 05
G. Nunn.	12 months' salary as Light-keeper	246 88 13 95	
H. H. Fuller & Co	Zinc, tacks, &c	2 66	263 49
	Tor Bay.		2007 45
Joseph Delorey T. Walsh & Co	12 months' salary as Light-keeper	246 88 15 90	
+ · Urant & IIo	(Klinds	3 36	
DIEWETT & UD	Stove and pipes Freight on oil	14 50 5 25	
Henry Lendon	110.811 01 011		285 89
Henry Lendon	Carried forward		285 89 52,372 89

	Brought forward	\$ cts.	<b>\$</b> cts 52,372 89
	LIGHTHOUSES—Concluded.		
	Walton,		
Timothy Parker	12 months' salary as Light-keeper		100 00
	West Port.		
J. D. Sutherland	12 months' salary as Light-keeper		296 28
	Whitehead.		
John Davidson J. A. Stewart & Co H. H. Fuller & Co	12 months' salary as Light-keeper Lumber and shingles. Stove and pipe Iron, nails, hinges, &c Repairing boat house	62 12	622 66
	Yarmouth.		
3. J. Morton & Co I. Harris	12 months' salary as Light-keeper	784 00 3 94 25 50 66 00	879 44
	Yermouth Harbour.	i	
Saac Melvin	12 months' salary as Light-keeper	345 64 1 00 22 77 13 00 21 20	403 61
	GENERAL ACCOUNT.		
ohn Hayes	Labour, truckages, etc	1,899 82 20 00 965 34 120 95 43 35 91 98 1,699 96 2,763 08 578 10 459 50 40 00 941 40 209 46 170 39 322 66 5 20	
saac Melvin	Casks for packing	121 25 120 00 21 44	

		\$ cts.	\$ cls
	Brought forward	10,593 88	54,674 88
	GENERAL ACCOUNT—Continued.		
	Lamps and repairing steam pump	62 75	
l'homas Offen	Blocks 12 months' salary as Clerk	3 36	
do	Superannuation tax	700 04	
Mary Pender:	Cleaning offices	700 04 1 96 00 1	
S. J. Marden	Repairing office stamp	3 75	
W. J. Ouldfield	Salary as Messenger Medical certificate as to health of Capt. Kendrick.	159 96   5 00	
St. John <i>Globe</i>	Advertising	13 75	
Sackville Post		13 72 1 3 00 1	
Berwick Star	Handbarrows	17 25	
do	Wheelbarrows and repairs to wheelbarrows	28 85	
P. Doherty	Receiving, storing, and delivering oil	4 50 1 30 <b>5</b> 74	
Halifax Cıtizen	Advertising.	25 92	
do	Subscription to paper	3 17 3 30	
D. McAlpine	Board workmen while repairing fog bell	2 00	
do	do 1878-79	2 00	
British American Bank Note Co	Cheque books.	38 75	
C. E. Creighton	Copying accounts	6 00	
Receiver General	Superannuation taxes on Lighthouse Keepers salaries.	514 89	
St. John Freeman	Advertising.	23 00 \$	
Windsor Mail		5 00 4 63 48	
Morning Chronicle	do	6 00	
Chas. Annand	Printing and binding cheque books, circulars,	300 50	
Acadian Recorder	forms, &c	103 50 58 06	
Forsyth & Co	Medicine, chests, &c	85 95	
F. W. Fishwick	Freight supplies	16 77 I 35 00 I	
J. P. Mott	Raising wreck at La Have	816 20	
E. P. Fairbanks	Copying plans	5 00	
J. Findlay	Labour building boats	1,500 00 1 142 00	
do	Labour on life-boat and magazine	12 00	
A. Stephen & Son S. Cuperd & Co	Brooms and pails	184 60 1 150 00	
P. Grant & Co	Cotton, ticking, flannel, &c	447 65	
do	[Coel hegs	6 25	
Archibald & Co	Plate glass and cutting	88 26 11 50	
J. K Goold	. Carronades and carriages, £45 18s. 9d. stg	223 56	
uo	Cartridges and friction tubes, £35 7s. 5d. stg Removing guns, Sambro to Halifax	172 13 165 69	
. do	Powder cases and kegs	161 46	
B. W. Tanka Clay	Powder cases and kegs Placing gun on McNutt's Island, Shelburne	19 00 2 25	
		306 25	
R. P. & W. F. Starr	Coals 152,2570 tons	473 54	
St. John Daily Name	Nautical Magazine	4 89 7 50 F	
Muritime Sentinel	do Blacksmith work. Reflector, frames, &c	5 76	
Baxter Prop	Blacksmith work	19 70   231 55	
Mackintosh & Melnnes	II.nmhar	29 94	
H. Doane.	Freight, powder	4 00	
	Carried forward	18,195 02	54,674 88
	275	,	•

	Brought forward	\$ cts.	\$ cts
		18,195 02	54,674 88
	GENERAL ACCOUNT—Concluded.		
C. Ouldfield	Washing	7 50	
W. J. Gleudinning	Washing	4 00	
J. J. Campbell	Wharfage supplies	6 00 (	
A. H. Creighton	Stationery, books, &c	107 39	
St. John Globe	Advertising (2nd account)	13 75	
Citzgerald & Co	47,634½ galls. oil, at 27 cts		
J. Burns	Preight supplies.	7 40 : 3 00 i	
F. F. Dantley	Subscription to reading-room	87 83	
V C Silver	Mat for office	2 50	
Starr Manufacturing Co	Repairing and re-silvering reflector	92 50	
W. Allen	Lumber	40 86	
f. F. Eagar	Sponges	103 16	
. Forhan & Co	Coul bags.	25 50	
lity Treasurer	Water-tax, to 1st May, 1878	42 50	
H. M. Customs	Duty on oil	7 07	
W. A. Wood & Col	Oil	1 26 07 1	
t. H. Cogswell	Repairing clock	3 00	
do	Hoisting time-ball, to 1st April, 1878		
. W. Bateman	Repairing locks	3 50	
Dottonom	Wharrage for landing coal	28 19 34 40	
W Dolow	Ladders	6 93	
Vale Coal and Iron Co	720 tons coal, at \$19	1,368 00	
Ferguson	Trimming coal	46 62	
Rodger & Co	Tirsmiths'work	18 10	
ohn Davison	Lumber	26 40	
Vm. Barron	Lamp wicks	3 52	
Flowers & Son	Cover for gun at Coffin's Island Station	5 25	
ohn Marvin	Fitting shelves in vault of office	11 88	
. & W. MacKinlay	Stationery	7 35	
. Moseley	Building boathouse for lifeboat at Herring Cove	258 74	
J. Hall	Printing press	15 00	
. B. Fuller & Co	Hardware, paint, waste brushes, chamois, olive	2 705 40	
	oil, &c	3,785 40	37,355 64
	Total Lighthouses		92,030 52
	HUMANE ESTABLISHMENTS.	[	
	St. Pauls.		
lass. Offen	Blocks	11 76	
3. Moseley	Lumber, doors, etc	231 38	
do	Repairs to buildings	1,264 82	
I. H. Fuller & Co	Hardware	482 90	
A. Stewart & Co	Stove and pipes	36 50	
limon & Mackintosn	Provisions		
	Lumber	30 93 7 00	
rabibald & Co	Building materials	224 00	
	Provisions	263 09	
	Blankets and shoes		
Seor & Co	Provisions	420 65	
. Overy	Expenses on condemned stores	30 00	
ntercolonial Railway	Conveyance of carpenters	21 00	
L. McLeod	Labour, provisions, etc	115 75	
s. C. Campbell	Freight on building materials	55 00	
do :	Conveyance of despatches	20 00	
úo	12 months' salary as Superintendent	588 00	
do			
do	Wages of boatmen	1,250 00	5,174 18
do		1,250 00	5,174 18 5,174 18

		\$ cts.	\$ cts
	Brought forward		5,174 18
	HUMANE ESTABLISHMENTS-Concluded.		
	SCATTERIE.		
Esson & Co	Provisions do	128 80 34 25	163 (5
	SEAL ISLAND.		
Smith Bro	Yearly allowance for boat Establishment, to 30th		
J. Baldwin & Co	Yearly allowance for boat Establishment, to 30th	120 00	
	June, 1878	120 00	240 00
	Total Humane Establishments		5,577 23
	EUOYS AND BEACONS.	ĺ	
	Arichat.		
D. Marchand	Raising and placing Cerberus, Hantfrid and Arichat	177 00	
C. P. Flynn	buoys Freight, labor, &c	175 00 18 95	
U. Lenoir	Blacksmith work	6 50	200 45
	Arichat West.		
Désiré Leblanc	Placing and raising buoys, blacksmith work, &c		72 05
	Barrington.	ĺ	
Joseph Kendrick	Labor painting, cleaning, exchanging and repla-	154 29	
do	Spars buoys, moorings, &c	63 70	
	Making spar buoys, labor, &c., placing them in Woods Harbor Passage	67 20	
B. T. Kenney	2 spar buoys	22 00	
C. W. Rohertson	Labor landing buoys and moorings	25 00   4 00	
Nickerson	2 spar buoys and moorings, painting and iron work	44 80	380 99
	Bras d' Or.	1	
rancis Dunlop	Raising and placing buoys on Carey's, Little Island		
	and Lime Rock Shoals 4 buoys, chains and moorings between Baddeck	148 71	
	and Little Narrows	55 60 10 00	
	ļ-		213 71
	Cape Negro.		
A. R. Greenwood	Lifting and replacing buoys Placing buoy in Budget Rock	51 95 12 00	en of
i	-		63 95

		\$ cts.	\$ cts.
	Brought forward	•	931 15
	BUOYS AND BEACONS—Continued.		
	Canso.		
J. Langley T. Langley	Blacksmith work, labor laying buoys	124 90 88 65	213 55
	Cheticamp.		
J. Anconi	Boat, labor, grappling and taking up buoys		64 95
•	Digly.		
C. N. Hughesdo	Labor painting and laying buoys in Digby Basin Taking up and replacing buoys, Joggin's Bridge	42 08 6 00	48 08
	Guysboro'.		
G. S. Peart	Putting down and raising buoys		20 00
	Halıfax.		
		28 00 10 00	
			38 00
	Lunenburg.		
	Taking up and laying down buoys	187 90 3 55	191 45
	Louisburg.		
Ÿ	Placing and removing buoys on Nag's Head, White Rock and Battery Shoals		
do	3 spar buoys and moorings		30 00
	La Have.	1	
Fred. Smith	Buoy, iron work, moorings, &c		15 11
	Merrigomish,		
R. McNeil	Lifting buoys		10 00
	Mahone Bay.		
James Mosher	buoys	221 00	
do	Paint, oil and blacksmith work	15 15	337 15
	Carried forward		1,899 44

		\$ cts.	\$ cts.
	Brought forward		1,899 44
	BUOYS AND BEACONS—Continued.	j	
	North Sydney.		
do	Buoy service in 1876 and 1877	32 <b>0</b> 0 40 00	227 <b>6</b> 8
	Port Medway.	Ì	
do	Labor, painting and boat hire Hire vessel and blacksmith work Spars, mooring stones and drilling.	67 22	136 47
	Pubnico.		100 11
M. Amero	Replacing three buoys		I6 <b>50</b>
	Pictou.		
J. R. Noonan	Placing buoys		106 50
	Petit de Grat.		
E. P. Flynn	Labor putting down buoys, freight, truckage and wharfage		
George McLean	Spar buoys and iron work	19 50	89 72
	Port Hawkesbury.		
J. McDonald	Labor raising and landing buoys, scow hire, &c		14 75
	Port La Tour.		
Wm. Nickerson,	Repairing. looking after and putting down buoys, per agreement		50 00
	Port Hoo l.		
J. H. Murphydo	Repairing, painting and putting down buoys	185 67 <b>85 2</b> 5	270 92
	Pugwash.		
r. r. Bent	Cleaning, painting and laying buoys  Picking up and replacing do	40 25 18 75 20 92	79 92
Ne	Pope's Harbour.		
James Bullong	Placing buoy		5 00
	Carried forward 279	***************************************	2,895 90

### STATEMENT of Expenditure on account of Maintenance of Lighthouses, Steam Fog-Whistles, &c., in Nova Scotia, etc.—Continued.

	Brought forward	\$ cts.	\$ cts 2,895 90
	BUOYS AND BEACONS-Continued.		-,
	St. Marys.		
I WaDamial		6 50	
Wm. Murdoch	Saving buoy, painting and laborFreight, mooring stone and placing buoy	10 00	10 10
			16 50
	Shelburne.		
T. F. Bentley	Two spar buoys		26 00
	Tusket.		
	Finding material and putting down buoys		
do	Seven new buoys and painting old ones	61 00	132 98
	Wallace.		
Wm. McNab	Mooring stones, blacksmith work and laying buoys	47 75	
do	Looking after buoys during summer and labor cleaning and painting	67 50	
			115 25
	Westport.		
R. D. Suthern	Labor laying buoy		3 00
	Yarmouth.		
W Wyman		31 30	
Eben Scott	Piles and labor setting	30 66 30 68	
~	making, painting and placing buoys	30 68	92 64
	Sunday Expenditure.		
W. A. Courtney	Automatic buoy Swivel		2,000 00
Killaim Bros	Chain		50 00 80 75
A. McKay do	Repairs to buoysLabor on automatic buoy	158 <b>60</b> 79 61	
do	Two iron can buoys, as per agreement	350 00	ron 01
J. Findlay	Repairing buoys		588 21 94 00
Lewis Wilson	Blacksmith work		904 64 207 40
F. W. Fishwick	Anchor and chain		25 00
T. J. Bentley	Spar buovs		265 49
do	Iron work		15 80 20 00
H. H. Fuller & Co	Nails, rivets, red lead, rubber, &c		28 82
J. E. Butler Mackintosh & McInnes	Spar buoy	•••••••••••••	14 00 58 08
John Ead	Chain		453 77
E. Albro & Co	Oakum		1 129 00
W. M. Smith	Bell buoy Examining and testing bell buoy		1,138 00 25 50
	Anchors and chains		900 74
J. U. Gregory	THE TANKS OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE P	***************************************	
Gram Morris	Wreneh Labor		5 05 16 85

STATEMENT of Expenditure on account of Maintenance of Lighthouses, Steam Fog-Whistles, &c., in Nova Scotia, etc.—Continued.

	Brought forward	\$ cts.	\$ cts. 10,178 87
	BUOYS AND BEACONS—Concluded.		
	SUNDRY EXPENDITURE—Concluded.		
E. Moseley J. Hunter Ed. Kerr B. H. Ruggles S. Townsend George Jackson Penitentiary N. K. Clements	Repairs to buoys.  Copper paint  Bell for buoy  Swivels, anchor stock and shackles.  Hauling up and scraping bell buoy.  Anchor, buoy and shackles  Repairing buoys.  Mooring stones and fittings.  Expenses recovering North-West Ledge bell buoy.  Repairing Brazil Rock bell buoy.  Total Buoys and Beacons		136 25 31 60 181 15 31 25 122 24 575 55
	SIGNAL STATIONS.		
J. K. Goold do	Conveyance of signal parties, provisions, etc Expenses of Signal Station, from 1st January to 31st December, 1877	100 00 87 50 436 57 2,221 46	
D	Expenses of Signal Stations, January, February, March, 1878	487 46 43 00	
	Total		3,375 99
	HUMANE ESTABLISHMENT.	]	
Heary Cook  W. R. Gordon  J. Melvin  J. Findlay  H. H. Fuller & Co.  J. W. Allan  do  H. Moseley  H. W. Johnston  Receiver-General  Geo. Rent  T. J. Bentley  Intercolonial Railway  W. Reid  C. & W. Anderson  John Ead  W. B. Hyde  P. Grant & Co.  T. P. Connolly  J. A. Stewart  J. Davison  M. F Eagar  A. Stephen & Son  S. Wilson  Brown & Webb  MacKintosh & McInnes  Lordly & Stimpson  Morrison & Co.	SABLE ISLAND.  Provisions	1,445 48: 297 61 39 00: 104 60 128 00 309 80 39 44 52 90 15 00 3,254 45 5 00 130 00 19 20 5 33 25 50 14 88 12 30 24 00 2 00: 10 56 38 14 51 95 16 75 27 10 11 15- 109 10 241 21 55 50 39 35	
	Carried forward 281	6,578 36	

### STATEMENT of Expenditure on account of Maintenance of Lighthouses, Steam Fog-Whistles, &c., in Nova Scotia, etc.—Concluded.

	Brought forward	\$ cts. 6,578 36	\$ cts.
J. Hickey	Sable_Island—Concluded.  Boarding men of Staff	15 00 3 35 7 89 11 20 22 50	6,638 30

#### RECAPITULATION.

Maintenance of Fog-Whistles, &c	5,577 23   11,532 18   3,375 99	\$ cts.
Share of expense taking care of Public Offices charged to Mariue and Fisheries Department	131,702 31 559 51	
Total		132,261 82

Note. - The salaries as charged in the above account are exclusive of the Superannuation tax-

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON, Accountant.

#### APPENDIX No. 12.

STATEMENT of Expenditure in connection with the Maintenance of Lights, Prince Edward Island, for the Fiscal Year ended 30th June, 1878.

do do Secretary of War	Block House Light.  12 months' salary as Keeper	10 86 32 00 4 87	
			393 <b>23</b>
	Cascumpec Light.		
do	12 months' salary as Keeper	250 00 32 00 96 35	378 35
	Crapaud Light.		
Percy Palmer D. W. Palmer	12 months' salary as Keeper	75 00 5 00	80 00
	East Point Light.		
do do	12 months' salary as Keeper Allowance for fuel, 1877-78 Paid for hauling oil, repairing lock, &c do labour and truckage of lantern and lighting apparatus Freight of lantern, &c., to Souris Station Conveying lantern, &c., from Souris Station to East Point Freight of lumber, &c.	20 20 42 00	
P. Carroldo	do Pine, planing, &c Paid wages on account of alterations Superintending alterations Hardware and cask	36 24 40 92	
Chas. Deagle	Cotton duck, paint, hardware, &c	201 84 32 50 1,895 28	3,763 34
	Fish Island Light.		
A. J. McLellando	12 months' salary as KeeperAllowance for fuel	250 00 32 00	282 00
	Little Channel Light.	•	
Wm. Hardy	12 months' salary as Keeper		100 00
,	Little Sands (High Bank.)		35 00
Dencan Munn	12 months' salary as Keeper		
	Carried forward 283		5,031 92

## STATEMENT of Expenditure in connection with the Maintenance of Lights, Prince Edward Island, etc.—Continued.

	_	\$ cts.	\$ cts
	Brought forward		5,031 91
	Little Tignish.		
Isidore Chassondo	124 months' salary as Keeper	102 00 22 75	124_75
	Murray Harbour.		•
Davies & McFadyen	12 months' salary as Keeper	100 00 20 09 22 00	142 09
	New London Light.		142 09
Geo. McKenzie	12 months' salary as Keeper		100 00
	North Rustico Light.		
Thos. G. Percydo	12 months' salary as Keeper	100 00 20 00	120 00
	North Cape Light.		
Peter H. Perry  Lewis McDonald  W. B. Allin  Dunstan Martin  Hermans & Son  Hubert Gaudet	118 months' salary as Keeper	291 67 8 33 32 00 10 00 261 67 12 00 4 00 5 00	624 67
	Panmure Light.	İ	
do	12 months' sulary as Keeper	250 00 32 00 9 00	
l	of workmen	70 00	<b>361 CO</b>
	Point Prim Light.		
	12 months' salary as Keeper	300 00 32 00	332 00
as. Taylor(	St. Peter's Light.  12 months' salary as Keeper On account of showing light  Erecting beacon for use of steamer Advertising in Charlottetown Herald do Summerside Journal	100 00 9 00 30 00 2 50 3 36	1 <b>44</b> 86
	Carried forward	-	6,981 29

## STATEMENT of Expenditure in connection with the Maintenance of Lights, Prince Edward Island, etc.—Continued.

		\$ ets.	\$ ets
	Brought forward		6,981 29
	St. Andrew's Light.		
	12 months' salary as Keeper	25 00	162 00
	Sea Cow Head Light.		
Robt. T. Holman	12 months' salary as Keeper Allowance for fael	250 60 32 00 15 20 12 00 202 73	511-93
			011 03
	South Rustico Light.		
Wm. Ford,	12 months' salary as Keeper		100 69
	Tracadie Light.		
Michael Ready do	12 months' salary as Keeper	100 00 30 00	130 00
	Summerside Light.		
Milton Walsh	12 months' salary as Keeper Temporary lantera	100 00 9 36 28 00	137 <b>3</b> 6
	West Point Light,		
Wm. McDonalddo	12 months' salary as Keeper	300 00	332 00
	Wood Island Light.		
ob	12 months' salary as Keeper	200 00 32 00 8 75	<b>24</b> 0 75
``	SALARIES AND CONTINGENCIES.		
dodo	12 months' salary as Agent	986 01 215 62 75 00 21 12	
Uo Teleg'h	Telegrams Travelling expenses	21 80 53 00	1,372 55
	Carried forward		9,967 88

STATEMENT of Expenditure in connection with the Maintenance of Lights, Prince Edward Island. etc.—Continued.

	Brought forward	\$ cts.	\$ ct 9,967 88
	GENERAL ACCOUNT,		
	Cartage of oil, &c	13 25	
	Labor packing and boxes for lighthouse supplies	20 00	
	Advertising	$\begin{array}{c c} 3 & 80 \\ 26 & 25 \end{array}$	
	To pay for oil, 4,631 galls. at 26c., \$1,204.06; cart-	20 20	
	age and labour, \$24	1,228 06	
Dodd & Rogers	Chimneys, linseed oil, canvas, wicks, &c	505 35	
John Gillis		265 00	
Jas. Kennedy	Removing logs and wreck-matter, Charlottetown	25 00	
Richard Westaway	Keeping range lights west of St. Andrew's Point,	20 00	
•••••••••••••••••••••••••••••••••••••••	during winter, for use of steamer "Northern	1	
	Light"	25 00	
			2,111 7
	BUOYS AND BEACONS.	1	
John Veo	Buoy service, Richmond Bay	22 00	
Wm. Callaghan	do Miminigaeh	121 00	
John Duffy		59 13	
Neil McLeod	do Pinette Harbour.	139 00	
Arch. Kennedy	Oil, paint, rope, &c., East River buoys	14 62	
Alexander Howatt	New buoys, anchors, &c., Tryon	187 00 139 00	
David Howlett	Buoy, service, Cardigan River Large buoy, anchor, &c., Grand River	41 00	
	Hauling and placing on Gilles Reef	30 00	
	Buoy service, Charlottetown Harbour	72 00	
D. Cameron	Cartage of buoys, &c, Malpeque	6 00	
JAS. Ellis D. Stawart	Painting and placing, Bideford River	8 00	
J. B. Howlett	Paid for buoys, placing &c., Georgetown	144 57	
John Arsenault	Buoy service, Egmont Bay.	50 00	
Edward Morrisev	Anchors, &c., Charlottetown and West Point	47 14	
Ewen McKinnon	Erecting beacon, Canso Point	8 00	
E G Kuller	Ironing 2 casks, chain, &c., North Rustico	9 00 26 00	
Dodd & Rogers	Buoy service, Charlottetown and Miminigash	61 00	
J. C Hall	do South Rustico	57 97	
Hugh Campbell	do Tracadie	69 59	
John Furness	do Vernon River	71 00	
P. E. I. Steam Navigation	Freight (n chain, Pictou to Charlottetown	10 80	
	Buoy service, Cascumpec Harbour	235 86	
D. McGougan		134 68	
R Campbell	do Summerside	206 00	
Wesley Myers	Double of Town Harbour	210 00	
John Gillis	do Crapaud Harbour	20 00	
	town	230 00	
Wm. Miller	Buoy service, Murray Harbour	48 00	
Richard Jenkins	do Pownall Baydo Little Channel	61 00	
Wm. Hardy 3. McKenzie	do Little Channeldo New Lendon	12 00   55 08	
John Haggart	do Georgetown,	129 83	
Alex. Halloran	do Souris	46 90	
Alex. McArthur Quebec Harbor Commis-		44 00	
sioners	3 anchors and chain	380 47	
F. G. Pursey	Buoy service, North Rustico	20 00	
R. S. McDonald		105 92	
John Duffy D. C. Campbell		35 00	
v. v. vampocii	do Montague	66.83	
	Carried forward		12,079 5

### STATEMENT of Expenditure in connection with the Maintenance of Lights, Prince Edward Island, etc.—Concluded.

	Bronght forward		cts.	\$ 12,079	cts 59
	BUOYS AND BEACONS-Concluded.		1		
Peake Bros. & Co	12 months' rent of warehouse, \$60.00; use of wharf and wharfage, Charlottetown, \$59.65	119 65 33 88 155 16 6 200	9 65 1 75 3 00 9 16 2 00 9 00 3 12 5 00 3 00 3 63 5 26 5 00	4,404	
	Share of expense taking care of public offices charged to Marine and Fisheries			203	01
	Total			16,686	66

WM. SMITH, Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

#### APPENDIX No. 13.

STATEMENT of Expenditure on account of Maintenance of Lighthouses, and Buoys and Beacons, in the Province of British Columbia, for the Fiscal Year ended 30th June, 1878.

	Beren's Island Light.		i
E. Cox	7 months' salary as Light-keeper	291 62	
A. McKinnon	5 do do	208 30	
J. J. Robinson	Lumber, labour, bolts, &c	50 45	
E. B. Marvin	Coal oil, white lead, flannel, cotton waste, &c	141 75	
John Eastman	Survey and duplicate plan	55 00	
Englishardt & Co	120 galls. coal oil, at 55c., \$66.00; groceries, \$12.25 Freight, lamp chimneys, &c	78 25	
E Chapteloup	Lamp chimneys	12 35 42 00	
P. McQuade & Son	Hardware and cord	11 00	
	Repairing lamp, &c	6 50	
			897 23
	Cape Beale Light.		
Robt. Westmoreland	Salary as Light-keeper, and to provide I Assistant		
TODO W COMMONDA	from 1st July, 1877 to 26th January, 1878	683 85	
E. Cox	Salary as Light-keeper, and to provide I Assistant,	000 00	
	from 24th Feb. 1878 to 31st March, 1878	314 28	
John Kenny	Salary as Acting Light-keeper, 27th Jan., 1878 to		
Steemen ( Alexandric !	23rd Feb., 1878	98 23	
Schooner "Anna Beck".	Passage of E. Cox and family, as per agreement do 2 men, from Barclay Sound	125 00 20 00	
Langiev & Co	900 galls. coal oil, at 52½c. \$472 50; soap, soda, &c.,	20 00	
manging a committee	\$12.75	485 25	
	Hardware, lime, paint, &c	71 00	
Wm. Spring	Indian labour, landing coal and conveying letters,		
10. 14 A. C.	&c	89 50	
wait & Co	Stationery	7 00	1,894 11
	71 71 77 77		1,004 11
	Entrance Island Light.	i	
Robt. Gray	12 months' salary as Light-keeper	600 00	
E. B. Marvin	30 cases coal oil, at \$6.50, \$195.00; cartage and		
	wharfage, \$1.50 Boiled oil, paint, rope, lamp and glasses	196 50	
John Hirst	Boiled oil, paint, rope, lamp and glasses	64 42	
Langley & Co	Binocular glasses	17 00	
Langley & Co	plate powder, \$13.25	178 25	
P. McQuade & Son	Paint, white lead, &c	60 25	
C. Carpenter	Lumber	36 50	
	Cast iron wheels	*11 50	
Jno. Holden	Iron work for ship and boat-house	48 50	
Arthur Fenny	Hardware, lumber and labour, fixing tower, extending boat-ways, &c	207 45	
1	ing boat may by womman and an annual and an annual annual and an annual and an annual and an annual and an annual and an annual and an annual and an annual and an annual and an an annual an an an an an an an an an an an an an	367 45	1,580 37
į		į	1,000
	Fisgard Light.	ì	
W. H. Bevis	12 months' salary as Light-keeper, and to provide		
1	l Assistant	759 96 1	
H. Saunders	Soap and brushes	8 02	
	Ring bolts in boat	2 25	
TY INDIANCE ELCAPTING	10 tons water	20 00	
1	Carried forward		
1			

STATEMENT of Expenditure on account of Maintenance of Lighthousses, and Buoys and Beacons, in the Province of British Columbia, etc.—Conlinued.

		\$ cts.	\$ cts.
	Brought forward	790 23	4,371 70
	Fisgard Light—Concluded.		
Jno. Weiler	6 chairs	12 00	
Andrew Rogers	Labour at coal	4 00	
S. L. Kelly & Co	Labour at coal	40 25 27 55	
Thos. Storey	Lumber, ironwork and labour at storehouse and		
	wharf	117 25	
Langley & Co	Coal oil, white lead, paint, chimneys, &c	108 50 2 50	
O. E. Redierna	Repairing clock	2 50	1,102 28
	n n riii		-,
	Fraser River Lightship.		
Jas. Jolly	12 months' salary as Master and Chief Light-keeper	1,200 00	
Chas. Lee		447 98	
Ino. Davis Robt. Griffiths	12 do salary as Assistant	480 00 40 00	
do	Paid for 15 days' labour	37 50	
H. Saunders	Provisions	275 70	
Jas. Fell & Co	do	309 00	
S. L. Kelly & Co	Stove-pipes, boiler and hardware	23 75   101 25	
H. Georgeson	162 galls dog fish oil, at 62½c 25 do at 60c, \$15.00; 296, at	101 25	
-	50c., \$148.00	163 00	
E. B. Marvin	Bench vice, pliers, paint, oil, &c	210 63	
	Anchor, hardware, varnish, sculls, &c	71 25	
	New boat, as per contract	61 50 80 00	
Geo. Hardisty	Freight of supplies and passage Capt. Cooper, per	00 00	
•	steamer "Enterprise"	51 00	
Jos. Spratt	Repairs to fog-bell	21 24	
C. E. Redfern,	Repairing burners do clock	9 00 3 00	
Jos. Bien	Lampwicks, \$67.80; duty, \$11.85; express charges,		
	\$1.25	80 90	
H. J. Cook	Survey and report, hauling out, hardware, copper,	901 49	
Jno. Parker	oakum, pitch, and labour repairing		
Welch, Rithet & Co	4 days' labour, \$2.50	60 00	
Thos. Ewen	LabourFreight, per steamer "Enterprise"	2 50	
Hudson Bay Co	Freight, per steamer "Enterprise"	24 50	
ous. Spratt	New chain cable, 5,495 lbs. at 6½c., \$357.18; ship- ping, \$2	359 18	
	μως, ψεινι		5,024 37
	Point Atkinson Light.		
<b>5</b> ~ '		1	
K. G. Wellwood	12 months' salary as Light-keeper, and to find 1	799 92	
Engelhardt & Co	Freight, &c., on 1 case lamps, &c	16 80	
E. B. Marvin	Coal oil, paints, oils, &c.	169 75	
Jas. Cunningham	Flannel, brooms, boiled oil, &c	42 10	
Langley & Co	250 galls. kerosene. \$57\cdot c	143 75	
A b W Wilson	50 lbs. white lead, 121c	6 25 23 00	
Jno. Hawks	Plumbers' repairs and solder Labour, painting	20 25	
	, , , , , , , , , , , , , , , , , , , ,		1,221 82
	Race Rocks Light.		
Thos Armsia	12 months' salary as Light-keeper, and to provide		
Thos. Argyle,	for 3.assistants	1,554 96	
Hy. Saunders	6 months' provisions	275 70	
	Carried forward	1,830 66	11,720 17
	289	-,	

STATEMENT of Expenditure on account of Maintenance of Lighthousses, and Buoys and Beacons, in the Province of British Columbia, etc.—Continued.

	•		
	Brought/forward	\$ cts. 1,830 66	\$ cts. 11,720 17
	Race Rocks Light-Concluded.	,	<b>i</b> 1
A. Rogers S. Aranburn Fraser River Lightship N. Bertrucci Henry Georgeson E. B. Marvin P. McQuade & Son M. Muir S. L. Kelly & Co. Thos. Argyle Jos. Spratt J. J. Robinson Langley & Co. A. & W. Wilson	6 months' provisions, \$322; 3 water-casks, \$18 Labour, bagging coal Boating stores. Transfer 4 casks dog-fish oil, 108 galls., at 62½c 40 galls. dog-fish oil, at 50c	6 00 67 50 20 00 126 50 94 62 111 19 60 80 3 50 4 00 28 91 20 00 36 24	
W. Wilkins & Co	Cylinders, revolving wheels and fog-bell machin- ery, £122 17s. 9d	598 05	
		·	3,400 59
	SALARIES AND CONTINGENCIES.		
W. Gregory. L. Lievre. Louis Fraser Chas. V. Cooper. Thos. Westgarth. A. Rose J. K. Suter E. Johnson Post Office, Victoria De Wiederhold & Co D. W. Higgins T. N. Hibben & Co M. W. Wait & Co.	12 months' salary as Agent.  do do Janitor  Assistance in the office 40 days, at \$3	1,567 92 120 00 120 00 34 50 42 00 5 00 5 00 5 00 5 00 5 00 27 75 115 87 35 66	2,152 20
	GENERAL ACCOUNT.	į	
J. Spratt	Storage of oil, &c	30 00 44 55 27 50 5 50 6 75	114 30
,	BUOYS AND BEACONS.	1	
J. Nagle	Mooring chains, &c., Fraser River	350 22 117 60 74 00 17 50 371 14 10 00 80 00	
T. E. Peck	Paid labour of 4 men, 15 days each, Fraser River	150 00	
!	Carried forward	1,225 46	17,387 26

STATEMENT of Expenditure on account of Maintenance of Lighthousses, and Buoys and Beacons, in the Province of British Columbia, etc.—Concluded.

	Brought forward	\$ cts. 1,225 46	\$ cts. 17,387 26
	BUOYS AND BEACONS—Concluded.		
J. Cunningham H. E. Wilby P. McQuade & Son	Towing buoys to New Westminster	24 50 72 48 17 50 83 16	
Jesse Sage	do Ballast iron, Victoria Harbour Building 2 cedar buoys, Victoria Harbour 1,897 feet cedar, for buoys, \$34.42; cartage, \$1.00, Victoria Harbour	12 00 5 75 45 00 35 42	
Chas. Ball	Ironwork for buoys, Victoria Harbour	6 25	1,561 52
	Total		18,948 78

JOHN TILTON,
Accountant.

WM. SMITH,
Deputy Minister of Marine and Fisheries.

14.

STATEMENT of Expenditure on account of Construction of Lighthouses and Fog-Whistles, &c., for the Fiscal Year ended 30th June, 1878.

<del></del>			
do	ABOVE MONTREAL.  Coteau Landing.  Contract for building	37 50 354 75 5 16	1,008 31
•	Lamb and Battle Island.		2,000 02
	Balance of contract	862 22 707 27	1,589 49
	Port Colborne.		
Whiteacre & Moran	On account of contract		2,300 00
	St. Anne bout de L'Isle (Four Towers.)		
Ottawa Free Press W, P. Anderson Jos. White E. Chanteloup	Advertising for tenders Travelling expenses Removal of old towers and building new ones, as per contract Lanterns and lighting apparatus.	4 80 25 65 1,400 00 763 60	2,194 05
	GENERAL ACCOUNT.		
W. P. Anderson	Travelling expenses	100 00	116 05
	Total		7,207 90
	Below Quebec.		
	Algernon Rock.		
D. Babin	Balance of contract	98 00 97 00 6 00 25 95	226 95
	Cape Ray.		
Smith & Booth	Patent automatic fog-alarm		1,000 00
	Carried forward	******	1,226 95

# STATEMENT of Expenditure on account of Construction of Lights and Fog-Whistles, etc.—Continued.

		\$ cts.	\$ cts.
	Brought forward		1,226 <b>95</b>
	Below Quebec-Concluded,		
	Egg Island.		
D. Banville P. Jobin G. Bouchard E. D. Dion & Co L. Arel L. Marois A. Terreau	Painting and glass Three toise of stone Freight of materials Passage of masons, freight of stone, &c  do workmen and freight. Provisions for do  do do	139 50 30 00 200 00 105 00 171 73 56 40 15 05 36 75 3 75 12 10	2,428 93
	Greenly Islan 1.	İ	,
J. Mowat	On account of contract Revolving apparatus Freight	5,069 00 1,480 68 32 29	
	Insurance on materials per Steamer "Champion".	15 00	6,596 97
	Point Rich.		3,322 23
Neptune Fog-Horn Co	One automatic fog-horn		2,500 00
	GENERAL ACCOUNT.		
J. J. Foote	Advertising for tenders for building lightship Travelling expenses	4 32 19 30	23 62
	Total		12,776 47
	New Brunswick.		
	Grindstone Island Fug-Alarm.		
D. McLaughlan & Son. J. H. Crosby	Balance of contract  New boiler as per contract  Labor at machinery  Travelling expenses  Boarding workmen  Mason's labor  Iron piping, fittings, etc.  Heater  Jarting and labour  Freight on bell  Jopper bores  Jarting and labour  Pittings and hardware  ron work  Stove	535 42 335 00 166 25 16 63 31 50 39 75 608 84 18 00 20 50 16 59 6 00 7 35 19 50 29 06 9 75	1,960 14
1	Carried forward		1,860 14
•			

## STATEMENT of Expenditure on account of Construction of Lights and Fog-Whistles, etc.—Continued.

	Brought forward	\$ cts.	\$ cts. 1,860 14
<b>!</b>	Now Paguages Canalists		
	NEW BRUNSWICK—Concluded.		
	Head Harbour Light.		
Neptune Fog Horn Co	1 Automatic fog-horn		2,500 00
	Machias Seal Island.		
T. Gorrigan Intercolonial Railway Co E. Chanteloup Blackadar Bros Ellis & Armstrong R. N. Smith Chas. Annand	Cast iron lantern, plate glass, blinds, etc	2,675 00 125 00 144 14 958 82 3 48 4 50 2 90 3 48 55 00	
			3,972_32
D. W. Clark Intereolonial Railway Co Allan Bros Wm. Brown G. Hevenor E. Chanteloup Jno. Nugent	Negro Town Point Light (On Pier).  Contract for building Labor and materials for beacon Freight on glass and lighting apparatus Small winch Iron ladder, stay bolts, etc. Lamps Lantern and reflectors Carting do do Adverdising tenders for light	1,025 00 258 49 40 14 22 00 15 47 71 96 829 33 7 95 4 50	2,27 <b>4</b> 84
C. McGee H. King	Pea Point Light.  Balance of contract building	693 00 15 00 125 00 30 00 10 00 509 41	1,382 41
	GENERAL ACCOUNT.		
R. McConnell	Advertising, Machias Light	3 48 15 94 12 00 2 50 4 50	38 42
	Total	•••••	\$12,028 13
	Nova Scotia. Bon Portage.		
N W White	•		0.40
74. 44 . 44 THE	Searching title and recording deed		6 <b>4</b> 0′

## STATEMENT of Expenditure on account of Construction of Lights and Fog-Whistles, etc.—Continued.

	Brought forward	\$ cts.	\$ cts
	Nova Scotia—Continued.		
	Cape Le Ronde.		
Ches Lettimore	Purchase money land	250 00	
R. S. Weatherbee	Drafting and engrossing deed	39 00	289 90
	Cape Sable.		
	Scarching title and drawing deed	9 15 50 00	59 15
	Creighton's Head.		
R. S. Weatherbee	Drafting and engrossing deed		28 50
	Devils's Island.		
E. Chanteloup	Lantern and lamps	1,652 07	
Jacob Bowser	LabourBalance of contract	3 50 1,593 00	
do ()	Extras	156 00 18 75	
W. H. Isnor	Ferriages of Inspector	63 50	
Henry Watt	Inspecting while building	90 00	3,576 82
į	Guyon Island.		-,
J. K. Brown	Carpenter's work	7 00 290 00	297 00
	Isaac's Harbour.		
Benjamin Hines Wm. Moir.	Purchase of land for site	55 00 5 <b>6</b> 0	00.00
			60 60
	Isle au Haut.	į	
J. H. Harding	Paid freight and cartage of lanterns	145 01 15 28	
E. Chanteloup	Freight of plate glass	2.011 26	
Calvin Cogswell	Account of contract	2,800 00 948 81	
H. W. Johnston		946 61	5,920 36
	La Have.	ļ	
Doull & Muller	Account purchase of site	388 57 13 50	402 07
	Pope's Harhour.		402 Vi
E. Chanteloup	Lanterns, lamps, &c	891 67	
George Rowlings F	Salance of contract	1,734 74   58 15	
Wm. Condon	nspecting while building	86 50	
Overy	reight and cartage	1 34	2,772 40
		ļ-	

# STATEMENT of Expenditure on account of Construction of Lights and Fog-Whistles, etc. - Continued:

	Brought forward	\$ cts.	\$ cts. 13,412 30
	Nova Scotia—Concluded.		
	Shelburne Harbour.		
N. White	Searching title and recording deed		7 70
	Tor Bay.		
J. McDonald	Balance of contract	50 00	
do	Extras	30 00	80 00
	Total		13,500 00
	PRINCE EDWARD ISLAND.		
1	Cascumyec Light.		
R. A. Clark	· · · · · · · · · · · · · · · · · · ·	40 00	
Dodd & Rogers	Removing range light	9 50	49 50
	East Point Light.	,	
Chance Bros. & Co	Polished plate-glass	202 16	
Prince E. I. Steam Navi- gation Co	Freight do Montreal to Summerside	73 64	275 80
	Fish Island Light.		
	Balance of contract, buil ling oil-shed, &c Travelling expenses to settle dispute with Contrac-	617 92	
-	Fixing windows, painting. &c	12 20 4 50	
John Sinclair Jos. Doucet	Inspection fees	50 00 3 00	
D. Cameron Dodd & Rogers	Cartage of box	2 25 9 50	699 37
•	Little Chanuel Light.		
Peter Millar	Balance of contract, \$450; cartage, &c., \$18	468 00	
Robt. Williams	Inspecting, \$65; extra labour, &c., \$10	75 00	543 00
	Summerstile Light.		
Chance Bros. & Co	Polished plate-glass	52 84	
E. Chanteloup	Materials, and building Light-tower on Rallway Whaif Cast iron lantern, blank sides, blinds, &c	300 00 393 46	
•	<b>]</b> :		746_30
	Tignish Range Lights.		
Theodore Bernard E. Chanteloup	Erecting range lights, as per contract	130 00 60 50	199 50
	·		TAA 00

### STATEMENT of Expenditure on account of Construction of Lights and Fog-Whistles, etc.—Concluded.

#### RECAPITULATION.

Construction of do do do do	Lights, do do do do	&c., above Montreal	12,776 12,028 13,500	47 13 00
		Mata1	49.016	07

WM. SMITH,
Deputy Minister of Marine and Fisheries

J! TILTON,
Accountant

#### APPENDIX No. 15.

STATEMENT of Expenditure on account of Dominion Steamers, for the Fiscal Year ended 30th June, 1878.

	1					
	Steamer "Napoleon III."	\$	cts.	:	<b>5</b>	cts-
Capt. Despres	12 months' salary as Captain	799	93			
J. U. Gregory	Wages of officers and crew from 1st July, 1877, to			1		
en 10 41	30th June, 1878	7,049		-		
T. Koutier	Pay-list of joiners, blacksmiths, painters, &c	989				
J. Kolpn	Repairs to engine and machinery	238		ŀ		
	Paid for butter		04	ĺ		
D Povilland	do repairing boiler, coaling &c	136	50	1		
Toon And	Washing, &c	2,390				
A Risect	Repairs to machinery, iron tubing, metal rings, &c	763		ĺ		
F () Vellerand	Chimneys and wicks		75			
R Rickieton	Canvas, twine, blocks, fitting awnings, sails, &c		65	1		
P. F. Rinfret	Medicines		00	1		
G. T. Philling	Copper and brass smiths' repairs, tubing, sheet	20	00	1		
Or 24 Emilips	brass, &c	1,309	60			
F. Plamondon	Fish.	151		1		
	Provisions	1,043		1		
	Milk	143				
	Provisions	110		1		
	Vegetables	404				
	Provisions.	101		1		
	Paid pilotage		00			
do	Paid for provisions	199	_	!		
Audet & Robitaille	Rope, canvas, shovels, &c	305	27	1		
Dawson & Co	Stationery	7	30			
T. Parent	Measures. &c	4	25	1		
J. Marmen	Cartage	91	85			
J. Boivin	Hardware, paint, turpentine, &c	283	66	1		
Z. Lapierre	Boat and oars.	104	50	l		
Mrs. Marron	Washing	4	00	1		
D. Mabee.	Freight of chain, oil, &c	32	00	ļ		
Mrs. Fitzgibbons	Making flags		00			
	Pilotage		00	}		
intercolonial Coal Co	168 tons of coal at \$1.80	302		į.		
F. Derouin	Repairing blocks		45	1		
T W Tandoni	Painting	195				
J. M. Tardivel			95	1		
W W. 455	Provisions	143				
Tachá & Ca	Flags, bunting, repairing, &c		30	}		
	Boiled meats Bread	202	44			
	Paid for provisions, &c,	202				
	Board and ferriages		00	1		
Ouguet & Co	Clock and repairs.		50	1		
Thos. Norris	Crockery		05	1		
	Meat		20			
L. Bourget	Provisions	470		1		
C. & W. Wurtele	Iron, boiler plate and rivets	117				
3. J. Shaw & Co	Rubber packing	123				
N. Turcot.	Rockets		00	}		
J. Sullivan	Hawser, rope steering gear	231		1		
C. McNab	Porpoise oil		65	1		
V. Beianger & Co	Olive and linseed oil, turpentine, &c	405		1		
S. Bedard	Stoves, hardware, repairs, &c	246		1		
H. S. Scott & Co	Iron	22	43			
				-		
	Carried forward	19,882	45		** ***	****
	<b>298</b>	•				

			<del></del>
	Brought forward	\$ cts. 19,882 45	\$- cts.
	Steamer "Napoleon III."—Continued.		
J. Kane. Archer & Co H. Dinning & Co Dinning & Webster. A. Fraser & Co T. Drysdale. O. Gourdeau D. Landry. C. Pelletier V. Crawford & Sons J. Blais H. A. Paré. F. M. Dechené. L. Guerard. Wm. Lee. J. Williamson E. Désgagne	Paid duty on machinery oil. Repairs to engine. Lumber. Oak and birch lumber. Cement. 390 tons coal at \$3.40. Repairing machinery. 28 days' wages as carpenter Labor. do do Moorage Wintering. Provisions. Bedding, linen and clothing. Mattrasses. 9 officers' suits, pants, &c. Wages for watching and clearing snow. Mops. 10 gallons maple syrup at 62½cts.	9 00 10 24 39 25 10 00 1,326 00 42 00 3 20 4 00 70 00 89 41 238 51 11 75 252 00 93 60 2 50 6 25	99 979 50
	Total		22,272 59
Gard A M	Steamer "Druid."		
do	12 months' salary as Captain		
I Tr o		1,000 00	
J. U. Gregory	12 months' pay-list of officers and crew	4,868 61	
T. Routier	7 per cent. on Capt. Marmen's salary to 1st May, '78	40 00	
1. Roubler	Wages of carpeniers and smiths for outfit and	401 05	*
L. Guerard	repairs to steamer, engines and machinery  Mattrasses, furniture and repairs	481 85 133 82	
L. Arel	Meat, provisions, &c	1,625 59	
r · noulliard	Washing and repairs to clothing. &c	140 00	
U. Picard	Iron piping and smiths' renairs	89 95	
J. M.   ardivel	Paint, varnish, glass and painting	324 28	
r. U. Vallerand	Chimneys and wicks	9 10	
G. T. Philling	Canvas and sails	24 30	
Jos. Vandry	Linen, ticking and braid	334 07 10 78	
r. Plamondon	Fish	91 63	
G, Bouchard	Provisions	652 69	
D. Langlois	Milk	108 19	
U. Cognon	Provisions	3 70	
J. Marmen	Stationery and chart	5 30   63 35	
o. Dolvin	Hardware, paint, oil, &c	174 38	
Atther & Co	Lumber	3 27	
Als. Fitznenry	Washing	19 68	
R. Royland	Cement	15 00	
	2 chaldrons smiths' coal, at \$7.00 per chal	14 00 553 20	
	I TOCATIVE ATC	357 40	
41. MUPDOV	bli chaldrong coal at WE (II) nor chal	300 00	
~ Dion & Go	Provisions	83 45	
~ . * 100001116 )	RIOCKS	12 96	
THE DIOCK & UO.	Corkwood	1 60	
recite of CU	Preserved meuts	127 52 41 40	
Jno. Davidson	Bread	142 80	
ļ			
1	Carried forward	11,858 97 '.	

14	Brought formard	\$ ets. 11,858 97	\$ cts.
	Steamer "Druid."-Continued		
W H Lanacha	Time inica	10 77	
Whitehead & Turner	Lime juice	12 75 10 00	
Duquet & Co	Clock and repairs	10 00	
J. Lachance	Paid for repairs to bedding, &c., \$35.00; wages for		
Intercol on Mining Co.	watching, \$84.80 52 tons coal at \$1.80	119 80	
W. Barbour 11	Paid for butter. \$37.32: Labour coaling. \$13.00	50 32	
8. J. Shaw	Files, &c	33 85	
J. Parker & Sons	Kaps	6 86	
Jac Wilson	Repairing uniforms	8 00 4 00	
W. Tait	Waste and soda	13 85	
L. Bourget	Provisions	181 72	
J. Blais	Wintering	50 00	
F M Dech wa	Leather	4 80	
Capt Marmen	Clothing, bedding, &c	<b>254 6</b> 0	
	the Halifax Fishery Commission	261 80	
Chinic & Beaudet	Powder	4 50	
N. Turcotte	Rockets	18 00	
F. T. Thomas	Lead lines, log line reels, &c	20 00 16 80	
G. R Rent cw & Co	Lead lines, log line reels, &c	6 50	
O . M. C. C. M	ZU MRIIS. DOPDOISE OIL AL COC DET MAIL	17 00	
V. Belanger & Co	Linseed and olive oil, turnentine. &c	<b>39</b> 9 30	
O. Degar	Stove hardware and renairs	123 10	
M. Dickey	Overhauling and repairing sailsCleaning and scrubbing	100 00 8 80	
H. D. DCO . & CO 1	ron nuts	0 26	
U. & W. Fele F	Rivets	1 44	
Jean Lem 1 1	0 galls. maple syrup at 62½c. per gall	6 25	
Ulric Grolen P	doorage	150 00 70 00	
Capt. Marmen E	Expenses during voyages, provisions, vegetables,	.0 00	
Į.	&c	74 01	
T. Drysdale	epairs to machinery	12 00	
W. Watson F	umber	26 03 39 70	
Geo. Bi∘settT	urning and fitting steel pins	9 55	
	Clothing for officers	294 00	
1	I man Defend to Dessimon Comount amount		14,372 16
	LESS—Refurd to Receiver-General, amount received from Halifax Fishery Com-		
	mission for expenses incurred in pro-		
	curing evidence.		2,259 61
`	Tura 1	-	19 112 55
	Total		12,112_55
1	Steamers "Napoleon" and "Druil."		
	General Account.	ļ	
R."S. Olscamps 6	stencil plates	7 68	
W. H. Larae(D)	rugs and medicines	12 50	
JOS. Vauder Ti	icking linen binding &c	13 87	
	rovicions, &c., \$71.83; wharfage and landing	309 03	
do O:	uarter salary as Sub-Agent	50 00	
Dawson & Co St	ationery	29 00	
r. Parent Pi	uncheons	6 00	
J. Boivin He	ardware, paint, &c	192 03	
Allans, Rae & Co	umber	48 40 15 95	
,	<b>!•</b>		
1	Carried forward	684 46  .	
1	300	OB2 20 1.	

	Brought forward	<b>\$</b> 684	cts. 46	\$ cts.
	General Account.—Continued.			
T. Berrigan L. Bourget A. H. Murphy Adam Watters	Prunes	2,939 1,315 10	60 <b>35</b>	
Audet & Robitaille	Emery cloth	380		
A. Fraser & Co Intercolonial Coal Co	Freight	642	76 96	
J. J. Foote	Subscription to Quebec Morning Chronicle, 2 copies, 1 year; 1 copy, 2 years		00 00	ĺ
H. S. King & Co Edward Trout	do Nautical Magazine do Monetary Times	5 4	08 00	
Montreal do D. Maybee	Telegramsdo  Freight of 134 tons of coal, at \$1.50 per ton	176 201	00	
J. & W. Reid O. Piamondon		15 14	90 90	
P. Condé C. Cyprien	Egg powder	33	00 60 60	
M. Paradis E. Chanteloup T. Routier	Butter, 183 lbs. at 10c		50 75 76	
Drum Manufacturing Co, R. Borland D. Davidson	Sawing timber. Use of coal tubs. Oil waste.		90 00 74	
J. Blais. J. B. Bolduc F. M. Dechene	Wintering pontoon	12 431		
J. Barbeau	Repairing roofs, forge and carpenters' shops	472 46	00 39 40 20	
L. Leclerc	200 lbs. oakum at 8c., \$16; iron 72 lbs., \$1. 20  Total			\$8,297 <b>86</b>
	Steamer "Newfield."			
Alfred Vail	Provisions do	143 355	93	4
Edward Albro & Co	Hardware, rope, paint, oil, red lead, canvas, cotton, duck, &c	3,221		
J. Patterson	Iron door	3 34	24 00 40	
H. & W. Meagher W. A. Cook	Provisions do Pilotage		68 00	
Peter Judge T. Casev	do	184 1,453	44	
A. McKay A. W. McNah	Spars, oars, &c		48 27	
COUNTIE & COU	Oars		58 75	
	Carried forward	7,889	54	

	Brought forward	\$ cts. 7,889 54	\$ ct
	Steamer "Newfield."—Continued.	·	
T. Walsh & Co	Painting and gilding	100 60	
A. Grant & Co E. Kerr		11 50	1
A. & H. Creighton		168 00 56 51	l
O. & W. Anderson,		3,107 11	1
	Bread	90 72	
J. Findlay	Building and repairing boats	138 00	1
C. Offen	Blocks and sheaves	56 92	ł.
W F Condner	Blacksmith work	224 37 15 00	
Mackintosh & McInnes	Water. Lumber, &c	303 85	
Baxter Bros.	Cushions	22 50	
D. Dwyer & Co	Lumber and trimming coal	21 20	
eander Morris	Provisions	39 42	
Thos. Nettles		231 54	l
	Patent anchor	528 87	
· Harris	Repairs to machinery, &c	5 30 7 <b>6</b> 9 <b>4</b> 6	
fary McNeil	Ferriages	4 50	
Vallace & Balcom	Crockeryware, &c	139 72	
orsyth & Co	Refitting medicine chest. &c	109 35	
. B. Wilbur	Provisions	189 20	
. Ead	Stancheons	5 00	1
. A. Stewart & Co	Tinware and repairs	193 72	
logan, Lindsay & Co	ProvisionsBlacksmith account	78 49 10 47	i
V. Cotter & Sons	Provisions	444 25	
lexander Duff	Water.	25 00	i
Ellen Shea	Washing	10 70	ŀ
lenry O'Neil	Provisions	62 70	
McDermott	Trimming coal	9 60	
D Mott	Oars	12 40	
S McClockery	Soap, tallow and soda	94 81 2 15	
E. Harding	Plank.	4 93	
eo. Heberts	Conveyance of seamen to hospital	1 50	
. N. Purdy	Sundry disbursements	52 94	
_ do	Paid carpenters, labor, &c., building pilot house	192 50	
. E. De Young	Ice	2 00	
Walken	Wheeling and trimming coal	103 38	
Villiams & Livermore.	Carpenter's work, lumber, &c	150 80 28 00	I
Grant & Co	Bedding, table cloths, towels, oil-cloth, matting,	20 00	
Vestern Counties Rail-	&c	135 61	
way	Freight boat	11 40	
Flowers & Son	Making and repairing sails	172 06	
torcolonial Carl Ca	Water cask and coopering	*4 00	
as. Kelly	124 tons coal at \$1.80; trimming, 12c Beef, &c	238 08 93 03	
rchibald & Co	Stove	20 77	
Overy	Freight, sails	2 58	
. Ives	Trimming coal	28 00	
. W. McMillan	Blacksmiths' work	4 25	
hebyete Wesine Deil	Medical attendance on 3 injured seamen	4 00	
hebucto MarineRailway	Slip hire	1,278 00	
. S. A. Ormond.	Cash to Capt. Purdy	25 00	
do	Pilotage, Quebec to Montreal	28 50	
do	Paid R. Nicholson for provisions, beef, &c	124 04	
. W. Tobin	Travelling expenses	28 75	
. ECVends	Timber	1 50	
. W. Allau	Lumber	2 04	
	Carried forward	17,910 13	
•	302	TINETO YOU	

	Brought forward	\$ cts.	\$ cts.
	Steamer "Newfield."—Continued.		}
T. McAvity & Sons	Blacksmith work Cotton waste Vacuum and steam guages	227 78 12 20 40 00	
G. Rent	Tinsmith and plumber's supplies, &c	103 35 170 80 15 00	
Brackett & Duffy	Caulking	76 60 2 50	
W. Roche, jun Acadia Coal Co	Truckages and ferriages		
J. U. Gregory	Disbursements, Quebec	581 09 306 13 213 89 19 68	
W. Jack	Canvas   Freight of supplies     Lamps   Ship carpenter's work		
R. H. Cogswell	Sextant, clock, &c	72 00 22 00 54 10	
Starr Manufacturing Co	do  Hardware, brass and copper, olive oil, &c Silver-plating and polishing	10 80 358 64 7 25 20 40	
Dr. E. Farrill. M. F. Eagar Buzzell et fils	Attendance on seamen	5 00 45 29 30 84	
H. H. Fuller & Co.	Blacksmith's work	16 13 35 75	
H. M. Customs S. Cunard & Co	Paint, white and red lead, waste, oakum, &c Duty on leak stoppers Freight on leak stoppers	567 16 30 70 8 17	ı
J. W. Wood	Copper paint	49 28 2 55 10 00 176 41	
W. McFatridge W. & C. Silver D. McPherson	Iron blocks Cabin outfits Fittings for guns	6 00 110 39 432 74	
Lawson, Harrington & Co	Wages of crew	11,852 05 15 00 192 19	31,701 93
	LESS—Refund paid Receiver-General for expenses of steamer to France with articles for the Exhibition and return	11,311 73	,
	do do Capt. Purdy, Total	159 44	11,471 17
	Steamer "Glendon."	********	20,230 16
Peter Judge D. M. Browne		93 80 5 90	
i	Carried forward	98 80	, 001 50 100 000 000 000

Brought forward   98 80   Steamer "Glendon."—Continued.	5. \$ cts
Disbursements	•
Patterson   Water tank and repairs   59 46	
Killam Bros       Provisions       25 92         J. E. Butler       Spars, oars, fenders       71 75         J. Melvin       Dockage       14 00         do       Harness, casks, buckets, tubs       28 00         Thomas Offen       Blocks, sheaves       46 81         Griffin & Norris       Blacksmith work       228 27         Henry Cook       Provisions       167 63         W. McFatridge       Rope       10 40         John Ead       Provisions       42 23         J. J. Scrivin       Bread       11 25         Charles Neal       Washing       2 70         J. Jodry       Carpenter's work       56 00         D. Murray & Co.       Bedding and table cloths       96 65         A. McKay       Salcometer and thermometer       10 00         M. Phelan       Wheeling and trimming coal       82 43         Martin & Co.       Patent anchor       330 04         Ellen Doyle       H. Fuller & Co.       Hardware, &c       116 38         J. A. Stewart & Co.       Tinsmith's supplies, and repairs       83 23         Warner & Harrison       Painting       10 90         Lawson, Harrington & Co.       Towages       44 00         O. </td <td></td>	
F. Butler	1
J. Melvin	
do	
Comman Offen	
More	
More	
J. Scrivin   Bread   270	
J. Scrivin   Bread   270	
Charles Neal.         Washing.         2 70           do         Labor on board.         23 50           J. Jodry         Carpenter's work.         56 00           D. Murray & Co         Bedding and table cloths.         96 65           A. McKay         Saleometer and thermometer.         10 00           M. Phelan         Wheeling and trimming coal.         82 43           Martin & Co         Patent anchor         330 04           Ellen Doyle.         Washing.         14 60           H. H. Fuller & Co         Hardware, &c.         116 38           Wallace & Balcom         Crockeryware and cabin furniture         139 06           J. A. Stewart & Co         Tinsmith's supplies, and repairs.         83 23           Warner & Harrison         Painting.         101 90           Lawson, Harrington & Co         Towages.         44 00           Go         Towages.         44 00           J. P. Mott         Tallow and soap.         28 50           A. Stephen & Son         Cabin furniture         30 40           H. & W. Meagher         Provisions.         54 20           W. Cook         Pilotage.         10 00	
Description   Carpenter's work   Carpenter's work   Saleometer and thermometer   Carpenter's work   Saleometer and thermometer   Carpenter's work   Saleometer and thermometer   Carpenter's work   Saleometer and thermometer   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's work   Carpenter's wo	
D. Murray & Co.       Bedding and table cloths.       96 65         A. McKay       Saleometer and thermometer.       10 00         M. Phelan       Wheeling and trimming coal.       82 43         Martin & Co.       Patent anchor.       330 04         Ellen Doyle       Washing.       14 60         H. H. Fuller & Co.       Hardware, &c.       116 38         Wallace & Balcom.       Crockeryware and cabin furniture.       139 06         J. A. Stewart & Co.       Tinsmith's supplies, and repairs.       83 23         Warner & Harrison       Painting.       101 90         Lawson, Harrington & Co.       Towages.       44 00         J. Hefler.       Ballast       7 60         Mackintosh & McInnis.       Lumber       10 72         J. P. Mott       Tallow and soap.       28 50         A. Stephen & Son       Cabin furniture       30 40         H. & W. Meagher.       Provisions       54 20         W. Cook       Pilotage       10 00	
A. McKay       Saleometer and thermometer       10 00         M. Phelan       Wheeling and trimming coal       82 43         Martin & Co.       Patent anchor       330 04         Ellen Doyle       Washing       14 60         H. H. Fuller & Co.       Hardware, &c.       116 38         Wallace & Balcom       Crockeryware and cabin furniture       139 06         J. A. Stewart & Co.       Tinsmith's supplies, and repairs       83 23         Warner & Harrison       Painting       101 90         Lawson, Harrington & Co.       Towages       44 00         J. Hefler       Ballast       7 60         Mackintosh & McInnis       Lumber       10 72         J. P. Mott       Tallow and soap       28 50         A. Stephen & Son       Cabin furniture       30 40         H. & W. Meagher       Provisions       54 20         W. Cook       Pilotage       10 00	
Martin & Co	
Martin & Co	
Ellen Doyle       Washing       14 60         H H. Fuller & Co       Hardware, &c       116 38         Wallace & Balcom       Crockeryware and cabin furniture       139 06         J. A. Stewart & Co       Tinsmith's supplies, and repairs       83 23         Warner & Harrington & Co       Towages       44 00         Lawson, Harrington & Co       Towages       44 00         Mackintosh & McInnis       Lumber       10 72         J. P. Mott       Tallow and soap       28 50         A. Stephen & Son       Cabin furniture       30 40         H. & W. Meagher       Provisions       54 20         W. Cook       Pilotage       10 00	
Variet & Harrison & Fallow & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Ha	
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Variet & Harrison & Fallow & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Harrison & Ha	
Co	
Co.         Towages         44 00           do         Oil         12 90           J. Hefler         Ballast         7 60           Mackintosh & McInnis         Lumber         10 72           J. P. Mott         Tallow and soap         28 50           A. Stephen & Son         Cabin furniture         30 40           H. & W. Meagher         Provisions         54 20           W. Cook         Pilotage         10 00	'
do   Oil   12 90     J. Hefler	, <b>}</b>
H. & W. Meagher	
Tallow and soap   28 30 40	
Tallow and soap   28 30 40	
H. & W. Meagher	
W. Cook	
W. Cook It notage.	
Fred. Meyer Provisions 4 50	
J. Parker	
Intercolonial Coal Co 91 tons coal at \$1.80 and screening, 12c 174 72	
Mary Petitpas.         Provisions         21 14           T. J. Bentley.         Spars         7 20	
T. J. Bentley Spars	' 1
Chebucto Marine Rail way CoSlip hire	ı i
W. Boak & Son Dockage	
C. & W. Anderson   Provisions 1,724 20	
L. Wilson Blacksmith work 158 91	
Bruzzell et Fils	
A. & H. Creighton Logbook, charts, &c	
J. O'Connor	
Moir & Co	
A Hutchingon 5 25	; ]
Rlack Bros & Co Engine 20 00	
J. Starrs Tallow, block, &c 48 72	
J. Starrs	
469 Z3	
J. C. Morrison Repairing boiler 22 50	
R. H. Cogswell	
J. Hogan & Sons Lumber 11 72	: 1
Description	
W. & U. Dil Ver E 1901 Orbite @Catatacata actes actes actes actes for some actes. 10 41	
James Scott Provisions 83 26	
Carried forward 6,107 45	

ii )

	Brought forward	\$ 6,107	ets. 45	\$	cts.
	Steamer "Glendon."-Continued.				
Edw. Walsh Wm. Roche, jun	Cutting glass	1	20	i	
	\$101.25; 1 ton at \$5.50; truckage, 50c	177 6	25 65		
J. C. Wilson	Provisions		20 45		
Weir Bros. & Co	Hardware, olive oil, &c	167			
T. Moreash	Blacksmith work Altering sails	4	45		
J. C. Morris	Medical expenses and board	54	68 25		
Chipman Bros	Paint, waste and tallow	45	00 94		
Geo. Rent	Copper paint   Kettles for galley   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint   Copper paint		80		
E. Moseley	Copper paint	42 145	93		
Thomas Netiles	Provisions	47	71 00		
Thomas Casey	Provisions do	893 218	79		
E. Albro & Co	Hardware, paint, boiled oil, wire rope, &c	736	<b>5</b> 9		
	Total	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		\$14,271	54
	Steamer "Lady Head."				
P. Grant & Co	Towels, table cloths, &c	33	25		
R. H. Cogswell	Repairing clock	3	07		
Intercolonial Railway	Copper and brass smiths' repairs, supplies  Tickets for officers and crew for Quebec	78 151	35 80		
J. Patterson	Wheeling and trimming coal	<b>43</b> 340			
Mary Doyle	Provisions	373 6	79 60		
J. Coughlan	Washing and cleaning cabin		00		
E. Albro & Co	Hardware, &c	206 70	61		
Fred Meyer C. & W. Anderson	Provisions	10 538	40		
Lawson, Harrington &	Towages		00		
Henry Cook W. & A. Nauffts	Provisions	29 79	60		
Wm. Roche, jun	Coals	318	37		
P. Judge. Chebucto Marine Railway	Water	1,352 20			
Co	Slip hire	309 17			
S. Cunard & Co	Composition paint	259	39		
Unas. Neal.	Provisions Labor on board	42			
W. H. Tully	Washing		56		
A. HOSSIL OF DOLL	WOOD	2	44 00		
warner	Labor repairing boiler	146	!		
	Carried forward 305	4,526	66		
1 00					

·	Breught forword	\$ cts. 4,526 66	\$ cts.
	Steamer "Lady Head." - Continued.		
Wallace & Balcom C	rockery and glasswareread	168 45	!
G. Adams R	epairs to machineryish	187 94	
Delta, Torrie & Co	ollar crowns	3 00	
J. Hunter R. R.	epairs to rowlocks, &c	2 75	
A. V. Precourt St	ubsistence of crew on arrival from Quebecnsign	3 50	
J. DavisonL	ap badges.	5.59	
J. E. Butler Be	oat book staves	2 40 1	
Intercolonial Coal Co11	ardware, paint. rope, boiled oil, &c	343 84   201 60	
	Total		5,525 35

Note.—This steamer was employed in services usually done y the steamer "Newfield" while the last named vessel was on a voyage to France with Canada's contribution to Paris Exposition.

	1		
	Steamer "Sir James Douglas."		
Capt. J. Devereux 1	2 months' salary as Captain	1,399 92	
Jas Cooper11	2 do wages of officers and crew	4,991 18	
Dunsmuir, Diggle & Co., 49	91½ tons coal at \$4.50	2,211 75	
H. Saunders	roceries and provisions	1,440 66	
J. J. Robinson L.	umber, &c	83 52	
Sem Chung W	Vashing	12 06	
Log Spratt	conwork	295 97	
	eef and groceries		
Victoria Water Works 19	2 months' water rate	26 42	
M Marin	7 mile dom fish oil of colo	30 00	
M. Muir 20	7 galls. dog fish oil at 62½c	16 87	
Jno. noiden	lacksmiths' work	30 25	
Henry Elliott8	cords firewood at \$3.37\frac{1}{2}	27 00	
H. W. Doscher w	ashing	44 99	
W. B. Townsend Be	eef and vegetables at New Westminster	38 86	
Jas. Cunningham	galls. nut oil	15 00 ;	
	opper magazine	4 00	
Henry Short	mmunition	15 00	
E. B. Marvin P	aint, rubber hose, nut oil, brushes, cotton waste,		
· ·	&C	242 89	
Langley & Co N	ut and fish oil, paint, white lead, &c	119 80	
G. Hardisty F	reight per "Enterprise"	2 50	
P. McQuade & Son A	nchor, metal, canvas, waste, paint, oil, packing,		
	&c	439 28	
Fell & Co P	rovisions	315 64	
	lumber's materials and repairs	71 37	
Cant. J. Devereaux Pr	aid for wood and provisions	13 84	
	aid port charges at Port Townsend for convey-	10 04	
	ance of mails	135 00	
W. P. Sayward Lt	umber	8 88	
	ationery	17 63	
	oppersmith's repairs	4 88	
Amadas Malina	onding and 10 man 16 to 21st March 1070	4 00	
Amauvi mviina	oarding crew, 10 men, 16 to 31st March, 1878,	00.00	
Councini t Co	160 days at 60c	96 00	
Grancini & Co	in and earthenware	15 47	
1	Carried forward	12,166 63	*****
•	306	12,100 00 1	
	UVV		

	Brought forward	\$ ets. 12,166 63	\$ cts
L. H. Wilton H. J. Cook	Steamer "Sir James Douglas."—Continued.  Provisions	435 67 43 50 20 00 35 00	
	Less—Refund amount received from the Department of Public Works towards expenses incurred by steamer whist on telegraph service		
	Total		12,193 40

#### RECAPITULATION.

•	do General Steamer do do	"Napoleon III"" Druid"	12,112 8,297 23,230 14,271 5,525	55 86 76 54 35	
	do	"Sir James Douglas"	12,193	<b>4</b> 0	
		Total	97,904	05	

#### WM. SMITH, Deputy Minister of Marine and Fisheries

JOHN TILTON,
Accountant.

#### APPENDIX No. 16.

STATEMENT of Expenditure on account of Steamboat Inspection for the Fiscal Year ended 30th June, 1878.

		1	
		\$ ets.	S ct
Samuel Risley	. 12 months' salary as Chairman of Board		
•	and Inspector, Toronto \$1,764 00	]	
do	Superannuation tax	1,800 00	
Wm. M. Smith	12 months' salary as Deputy Chairman	1,800 00	_
	of Board and Inspector, St. John, N. B. 1,372 00		
do	Superannuation tax 28 00		
W 7 Manailla	10 1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1,400 00	
	12 months' salary as Inspector, Toronto 1,176 00   Superannuation tax	1 1	
40	Daperannuation tax	1,200 00	
John Burgess	12 months' salary as Inspector, Montreal. 1,176 00		
do	Superannuation tax	i	
N Dofont	10 marchal rates or Inspector (Disco	1,200 00	
. A. Delort	12 months' salary as Inspector, Three Rivers	) !	
do	Superannuation tax		
		1,000 00	
	112 months' salary as Inspector, Quebec 980 00		
do	Superannuation tax 20 00		
los Terlor	12 months' salary as Inspector, Kingston 980 00	1,000 00	
do	Superannuation tax		
		1,000 00	
hos. Westgarth	12 months' salary as Inspector, British Columbia	750 00	
E. R. Abell	Salary from 2nd February, 1877, to 30th June, 1878.	141 39	
Wm, M. Smith	Travelling and office expenses	1,042 45	
V. J. Meneilly		842 92   349 65	
ohn Burgess	do do	243 43	
. X. Befort		109 68	
os. Samson		42 80	
os Taylor		222 61	
hos. Westgarth R. Abell	do do	335 39	
ees Bros	do do	88 30   5 00	
Dougall & Son	Advertising notice of annual meeting of Inspectors.	4 50	
e National	do do do	4 00	
as. Gowans	Professional services in re owners Steamer "Cham-		
(	pion "	133 66	
Iontreal Harbour Com-	Rent of Inspector's Office, fifteen months, to 1st	1	
missioners	February, 1878	312 50 1	
	2 40.2 44.2 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	312 50	
	Total		13,228 28
	Receipts.		
	-	ļ	
	Tonnage dues collected by Customs Department	9,323 25	
	Fees from examination of Engineers	3,108 00	401 05
	· · · · · · · · · · · · · · · · · · ·		12,431 25

John Tilton,
Accountant.

WM. SMITH,
Deputy Mintster of Marine and Fisheries

#### APPENDIX No. 17.

STATEMENT of Expenditure in connection with Examination of Masters and Mates, for the Fiscal Year ended 30th June, 1878.

		<b>s</b>	cts.	\$	ct
R. S. Weatherbee.	Legal services in case vs. Capt. Nelson	25	00		
P. A. Scott	12 months' salary as Chairman of Board	1,764	00		
do	Disbursements account, St. John office	10	09		
	Travelling expenses				
D. M. Browne	12 months' salary as Clerk	888			
D. A. Beatson	Map	2	00 1		
Chamberlain Manufac-		i -			
		1 2	50		
A. & W. Mackinlay	Stamp	48	47		
J. Fraser	Box for papers and books	6	00		
D. Murray & Co	Office towels	ı	75		
Receiver-General	Superannuation tax on P. A. Scott's salary		00		
do	do D. M. Browne's salary	12	00		
	Examination fees	100	00		
David Hunter	do	100	00		
oseph Prichard	đo	88	00		
do	do Travelling expenses.	26	10		
Wm, Thomas	Examination fees	88	00		
R. Cameron	do	40	00		
E. D. Ashe	do		00		
E. Bumhain & Co	Tables, etc., St. John office		80		
Ouldfield	Washing towels	4	00		
3. E. Morton & Co	Bookbinding, stationery, etc	24	99		
. & H. Creighton	Tide tables, etc	20	75		
daritime Lithographic					
Company	Lithographing charts	25	00		
ordon & Keith	Book shelves, and repairing book case	7	00		
. Annand	Printing temporary certificates	18	50		
V. C. Secton	Manuels, marine, examination	4	00		
rennan Bros.	Paper rulers.	3	85		
. Stephen & Son	Bookcase and desk, St. John office	120	00		
lenry Lewis	Examination fees		00		
homas Killam	do	8	00		
	Chairs and window shades, St. John office			4 0 40	70
ļ	Fees received from candidates for examination			4,249 1,296	

WM. SMITH,
Deputy Minister of Marine and Fisheries.

OHN TILTON,
Accountant.

#### APPENDIX No. 18.

STATEMENT of Expenditure on account of Registry and Survey of Canadian Shipping, during the Fiscal Year ended 30th June, 1878.

	\$	ct
W. B. Weir On account of measurement of steamers	30 <b>225</b>	00
H. St. A. Ormond	13 59	78 75
do	$\frac{2}{14}$	50 70
Crown Agents of Colonies To pay for shipping forms W. Dawson & Sons Subscription to Shipping Gazette to 31st December, 1877	<b>8</b> 38	53 20
Thos. F. Sime	51 4	100
Total	447	56

WM SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant

#### APPENDIX No. 19.

EXPENDITURE on account of Investigations into Wrecks and Casualties, for the Fiscal Year ended 30th June, 1878.

Jas. M. Lent	<del></del>			
	1	!		!
			*	cts.
Н. А. Ноод.	Reporting wrecks.	Yarmouth, N.S., 28 at \$2.00	56	00
			40	00
		St. John, N.B., 99 at \$2.00	198	00
J. J. Fox		Magdalen Islands, 5 at \$2.00.	10	00
Jas. M. Lent		Tusket, 4 at \$2.00	8	00
D. Ferguson	do		24	00
E. D. Tremaine	do	Port Hood, 13 at \$2.00	26	00
Geo. Collins	do		14	00
Jas. Ross	do	Margaree, C.B., 2 at 2.00	4	00
Capt. P. A. Scott		nvestigation into the wreck of "Emilio"		i
-	* Barabino"		100	00
Jas. Gowans				{
	and "Cornet'		20	00
		-		
	Total		509	00
				1

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

#### APPENDIX No. 20.

STATEMENT of Expenditure on account of Rewards for Saving Life, purchase &c., of Lifeboats, for the Fiscal Year ended 30th June, 1878.

				\$	cts.	\$	cts
John Leslie M	edals, watches	. binocular	plasses. &c	998	83		
J. U. Gregory T	nav for life-c	ance. Rimo	nski	120	00		
do T	n naw for renai	rs to cance:	at L'Islet	25	00		
Seamen Steamer "Switz-	- I'mI'm						
erland"	rvices to Baro	ue "Leande	r," P.E.I	58	92		
J. Curry R	escuire crew o	ff Flint Isla:	nd	30	00		
J. Curry, jun	do	do	*************************	20	00		
L. Picard.			v"		co		
D. Poirier	do	do	*********************		00		
F. Boudrault	do	do	******	1 -	00		
C. Poirier	do	do			00		
A. Picard	do	do	********		00		
F. Boudrault, jun.	do	do	*********		00		
J. Boudrault	do	do			00		
J. Tinning A			Toronto Harbour		00		
P. RouleanB					00		
E. R. Kimpton					1		
A. M. Ingersoll M					36		
C. Smith					00		
H. Lawson.	do	do	***************************************		5 00		
John Smith.	do	do	* *** *******************		5 00		
O. Olsen	do	do	* *** *********************************		5 00		
Carl Chul and Augustus	uo	40	* * * * * * * * * * * * * * * * * * * *	'	, 00		
Kratch	do	Reigentin	e "Chilliarwallah"	1 4	1 00		
T. F. GwynneR		Dirgandin	ow Row C P	2/	00		
	do	do			90		
G. Cox E			ahaa				
R. DohertyR					3 00		
John Glover C	epairs to meou	lding lifaha	gwood	19	90		
					0 50		
E. CrowellS	ervices of Sch	ooner mar	eniess rescuing ci	ew a			
T Williams	or or Course	fucate	**************************************	31	00 0		
J. WilliamsR	do	do do	Ker		5 00		
H. Brown			** **********		5 00		
Reuben Perry	do	do	** ** ******* ******** **	15	5 00		
Judah, B. C. and U.	a_		PIF	1	- 00		
Crowell	do	ďο	\$15 each		5 00		
H. and P. Nickerson	do	фo	do		0 00		
Geo. Phillips	do	do			5 00		
Hingston Bros S	uri boat,	• • • • • • • • • • • • • • • • • • • •	••• ••••••• •• •• • • • • • • • • • • •	25	0 63		
		70 . 4 . 1		1			۸.
Ì	T D 4	Total				4,08	
	LESS-Kefut	ia to Receiv	er General			1	5 0
				1	}-		
				1	- 1	4,07	1 1

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

#### APPENDIX No. 21.

STATEMENT of Expenditure and Receipts on account of Water Police, Quebec and Harbour Police, Montreal, for the Fiscal Year ended 30th June, 1878.

	1		1
	Quality		
	Quebec.		
R. H. Russell	111 months' salary as Chief of Police and Shipping		1
	Master    1 do do do	1,078 00	}
Benj. Trudel	l do do do	98 00	1
W. Miller		97 <b>9</b> 9 <b>2</b>	1
I II Gramary	Pay-list of men	14,723 21	1
do	do for good conduct, 43 men, 8,657 days	14,120 21	i
40	at 10 cts	865 70	
Receiver-General	Superannuation on salaries of Chief R. H. Russell,		ļ
	\$22; and Clerk, \$20	42 00	
. M. Tardivei	Painting, glass, putty, &c	37 00	!
r. Routier	Pay-list of carpenters and smiths, repairing steamer,		}
a -	boiler and machinery of old steamer	177 8 <b>7</b>	j
do	Pay-list of carpenters and smiths, &c., fitting up	698 44	I
Fuchs	new steamer, boiler and machinery   Making clothing	130 75	1
Arol	Tallow and ice	111 16	1
Iullins & Stephens	14 cays' watching in November and December	14 00	1
O. Vallerand	Wicks and chimneys.	8 05	
ዩ. Blakiston	Flags and sails	19 00	1
'Asile du Bon Pasteur	Crowns and anchors	30,00	i
	Iron	3 90	i
	Stationery	57 35	1
	Hardware, paint, oil and turpentine	123 83 168 00	1
	Making and trimming pants and overcoats	469 00	!
fra Pitzeihbana	Making life preservers.	4 00	1
T. Phillips	Gun metal, brass and copper work to steamer	119 92	!
C. Chanteloup	Buttons, tube expander, &c	90 75	1
A. H. Murphy	Coals, 15 chaldrons, at \$7.50	112 50	-
dunt, Brock & Co	Corkwood.	4 32	i
Audet & Robitaille	Rope, canvas, bunting, oil, &c	199 93	1
Puquet & Co	Clock	5 00 4 88	)
P. Vaudry	Canvas	59 <b>4</b> 0	İ
Vm Watson	18 cords of wood, at \$3.30.	27 16	1
	Paid for bread and calash hire	143 23	1
do	Paid for uniform for self, \$55; 45 pairs of boots at		
	\$3, \$135	190 00	!
as. Cunningham	Making 156 shirts, \$39; cartage, \$4.90	<b>43 9</b> 0	1
	Repairing prison van, boats, and taking out steamers		
	boiler	183 80	
4. Grant	Groceries	<b>6</b> 65	ì
1. Quinn	Wintering steamer	12 45 3 00	1
. Ronwood	Spar	20 40	ļ
T Com	Olive and coal oil, waste, soap	20 30	1
	to 31st December, 1877	6 00	
D. L. Richardson.	Leather	2 15	1
N. Fitzhenry	'Lumber, coal and olive oil, paint, hardware, white,		1
	lead, waste, &c	243 90	i
	ł		-
	Carried forward	21,318 51	

STATEMENT of Expenditure and Receipts on account of Water Police, Quebec, and Harbour Police, Montreal, etc.—Continued.

		\$ cts.	\$ cts.
	Brought forward	21,318 51	********
	Quebec.—Continued.		
	Hardware	134 57	
M. Whalen.	Caps	93 50 1 <b>5</b> 40	
Mrs. Dovle	do	24 50	
Jno Taggart	Repairing water pipes.	4 50	
	Paid labour taking out old boiler from steamer	16 60 17 00	
H. S. Scott & Co	Iron plates and flanges for new steamer	187 70	
Achille Pouliot	Contract for building and painting bull of new	460.00	
Jno Battle	Steamer	460 00 15 40	
	Pine	13 00	
	Cartage	8 20	
	Ash oars, boat hook handles, &c	37 50	
A. Learmonth & Co	Boring boiler tube plates	6 00 1 14 00 1	1
Wm. Hackett	Towage	5 00	
Good Shepherd Asylum	Badges	42 00	
G Relenger	Plumbing and repairs	78 95 3 09	
Dr. Jennings	Medical attendance on three policemen	3 00	
Str. "Aurelia"	Towage of police landing pontoon from Blais		
C Riceat	Repairs to machinery of steamer	8 00 119 47	
C. H. E. Cherrier	Quebec Directory	3 00	
F. M. Dechene	Clothing	858 00	
B. Trudel	Paid for cleaning office, \$5.26; two pairs boots, \$6.	11 26	
•	Total	*********	23,498 06
	Montreal.		
H St A Owmand			
	12 months' salary as Inspect of Police, 365 days at \$2.50.	912 50	
John McLaughlin	6 months salary as Chief of Police, 184 days at \$3.	552 00	
Geo. Murphy	Salary as Chief from 10th April to 30th June, 1878, 82 days at \$3	<b>246</b> 00	
H. St. A. Ormond	Pay-list of men from 1st July, 1877, to 30th June,	210 00	
	1878	9,495 00	i
John McLaughlin	Paid for conveyance of prisoners, petty disburse- ments, &c., to 31st December, 1877	59 68	
do	Paid for meals furnished destitute men, cleaning	JJ 49	
	cells, &c., to 31st December, 1877	83 <b>9</b> 3	
H. St. A. Urmond	Paid for snow shovels, telegrams, postages, brooms, &c	21 94	1
	Cleaning station	14 75	
M. McGrath.	do cells, &c	12 00	
	Meals to destitute men, at 12½c   Paint, oil, turpentine, glass, brushes, &c	7 01 34 <b>4</b> 5	
J. G. Witt- & Bro	Spencer rifles, revolvers, cartridges, batons, &c	89 43	
Tod & Heritage	Lettering signs	7 00	
Jas. T. Nurse	Making carpet	27 43 2 62	
	Stationery.		
P. S. Ross & Bros	Hardware and bunting	2 45	
montreal Herald Co	12 months' subscription (2 copies), \$12; printing, \$9.40	21 40	l
G. Glassford	Three pairs nippers	4 50	
New York Maritime Reg-			!
1467	Half year's subscription	7 50	
	Carried forward	11,610 39	
	91₽		

## STATEMENT of Expenditure and Receipts on account of Water Police, Quebec, and Harbour Police, Montreal, etc.—Continued.

	Brought forward	\$ cts.	\$ cts.
	Brought forward	11,610 39	·····
	Montreal.—Continued.		
Robt. Irwin	Waist belts and pistol holsters, &c	14 00	
Teta & Covernton	Repairing stretcher	5 75	
M Reck	Earthenware	1 50 0 70	
G. & J. Esplin	Lumber	4 38	
McGibbon & Baird	Lumber Brushes, blacklead, &c Stationery and printing	2 95	
John Parslow	Stationery and printing	22 35	
Jas. Brown & Bros	Hardware	43 93	
Wm. Farguharson,	Summer clothing, \$828.30; winter clothing, \$499, Summer hats	1,327 30	
Thos. May & Co	Summer hats	16 25	
Fish Shaphard & Co	19 pairs boots, at \$3.50	<b>66 5</b> 0	
I D I. Ambrose	Chloride of lime.	10 84 8 15	
Major Pape	Ammunition and cartage	9 36	
New City Gas Co	Ammunition and cartage	96 24	
L. H. Heneault	1ce	5 00	
Prowse Bros	Repairing filter, &c	1 35	
J. Madden	Pants	4 00	
J. U. Gregory	To pay for flag Carpeting, \$15.20; gloves, \$16.56	42 30	
T. J. Claxton & Co	Carpeting, \$15.20; gloves, \$16.56	31 76	
A D Promis	Gas fixtures, piping and labour	46 40	
Montreal Harbour Com-	One ton eoal	6 50	
missioners	Nine months' rent of premises occupied by Mon-		;
missioners	treal Water Police, to 1st February, 1878	375 00	
J. L. Cassidv & Co	Forthenwere	4.95	
Warminton & Philbin	Plumber's repairs	33 30	
John Wilson	Boots for supernumeraries, ammunition, fire-		
	Plumber's repairs.  Boots for supernumeraries, ammunition, fire-	41 36	1
Geo. Carpenter	Instruction in ball practice to men	4 00	!
Chas. Marks	Marking at butts	1 50	
	Mitts	<b>29</b> 50	•
John McDonald	Lumber	21 72 2 85	
J. D. Anderson	Buttons	1 35	
B. Holbrook	Buttons	1 00	
	&C	17 41	
do	Paid for creton, covering arms, swords, &c	9 03	l
J. J. Foote	12 months' subscription, to 1st January, 1879, to		
	Quebec Morning Chronicle	6 00	:
Montreal Part Office	Stationery	1 40	
	Rent of box	3 00 12 00	
R. Miller	Blank books, &c.	3 55	
B. K. Deacons	Official signs.	1 80	!
E. Chanteloup	Official signs. Nickelplating, buttons, lanterns, &c	24 38	
N. Lefebvre	Repairing clock	1 50	
D. & J Sadler & Co	Repairing clock	1 25	,
J. R. Harper & Co	Badge 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards 100 postal cards	5 00	
R. Sandilands	100 postai cards	1 00	í
	Straw	2 70 1 88	
Morton & Co	Stationery	1 60	}
P. Ross.	Bunting	0 30	1
M. Bergen	Bunting	74 25	! !
Legroret & Johnston	Roots 2 noise at 44 C29 · 44 noise at C2 C129	164 00	
Lorge & Co	Caps	61 25	
Wm. Samuel.	Brazilian hats, 4 at \$1.25 and 21 at \$1	26 00	,
F. M. Dechene	Gaps Brazilian hats, 4 at \$1.25 and 21 at \$1	159 50	
II. St. A. Urmond	To pay for uniform supplied Chief of Police	117 50	14 500 00
			14,589 08
	Carried forward		

# STATEMENT of Expenditure and Receipts on account of Water Police, Quebec, and Harbour Police, Montreal, etc.— Concluded.

Brought forward \$		\$ 589	cts. 08
Montreal—Continued.	-		
Refund to Receiver General—Amount paid by Public Works Department for guarding flour stores, Lachine Canal		527	00
Total	14,	062	08
Total expenditure—Quebec	08		
Receipts at Port of Quebec	00 43	5 <b>6</b> 0 702 -	
Excess of expenditure over Receipts	—- <u>-</u>		

WM, SMITH,
Deputy Minister of Marine and Fisheries.

#### APPENDIX No. 22,

STATEMENT of Expenditure on account of Quebec Observatory, for the Fiscal Year ended 30th June, 1878.

		\$	c
E. D. Ashe	12 months' salary as Director \$1,374 72		1
	Superannuation tax		
	·	1,402	17
hos. Heatley	12 months' salary as Assistant Director	575	1 (
	Paid for labor, etc	17	1 8
awson & Co	Stationery	26	10
avid Kerr	Glass and glazing	15	ĺξ
atch Bros	Work and repairs at Observatory	51	17
hos. Andrews	Plumber's work at do	15	10
H. Clint	Lumber	4	1 8
anadian Express Co	Freight and charges	1	i (
. F. Lemesurier	Cord wood	30	1
Kane	Hardware	15	10
	Repairing road	8	i (
	Coal	10	1
	Coal oil, chimneys, wicks, burners, etc	42	1 1
	Advertising in Quebec Morning Chronicle	10	1
	12 months' water rate, to 1st May, 1878	40	i (
	Chronometer, clocks, etc	17	1
	Machinists repairs	25	1
o. Musson & Co	Olive oil, chloride of lime, etc	5	۱,
	Coal	10	i
D. Ashe	Postages, and sundry disbursements	77	, 2
	Total	2,400	1

WM. SMITH, Deputy Minister of Marine and Fisheries.

### APPENDIX No. 23.

STATEMENT of Expenditure on account of the Observatory, St. John, N.B., for the Fiscal Year ended 30th June, 1878.

		\$	cts
Hutchinson	On account of salary as Director	482	97
I. B. Longley	7 months' salary as Keeper of Time Ball	282	24
Receiver General	6 do superannuation tax on Director's salary	3	14
	Glazing	3	1 65
Allan Bros	Ball frame	3	1 80
Robt. Leonard	Making ball	8	00
D. Macnee & Sons	Code signals	29	10
Wm. Thompson	Freight on Code signals	8	00
H. Harding	Paid duty and cartage on Code signals	5	48
D. V. Roberts	Signal book	5	00
C. McAvity & Sons	Lantern	1	62
Wm. Lewis	Blacksmith's work	15	00
J. B. Longley	Paid for placing halyards	2	60
	Total	850	00

WM. SMITH,
Deputy Minister of Marine and Fisheries.

John Tilton,
Accountant.

### APPENDIX No. 24.

STATEMENT of Expenditure on account of McGill University Observatory, Montreal, for the Fiscal Year ended 30th June, 1878.

		\$	cts
W. C. Baynes, Secretary	Annual grant	500	00

WM. SMITH,
Deputy Minister of Marine and Fisheries

### APPENDIX No. 25.

STATEMENT of Expenditure on account of Magnetic Observatory, Toronto, for Fiscal Year ended 30th June, 1878.

	\$ ets.	\$	cts
G. T. Kingston 12 months' salary as Director	1,999 20		
Thos. Menzies do Observer	533 28		
W, A. Stewart do do	533 28		
	533 28		
Receiver-General Superannuation tax on above salari	es 61 05		
J. Merryfield	300 00		
A. Kleiser Repairing chronometer and anemom	eter 7 00		
R. H. Scott Magnet and fittings, (£5 6s. 11d.)	26 89		
E. Hooper & Co	37 88 [		
Consumers Gas Co Gas account from 28th June 1877. to 3	1st March. 1878 145 80		
Hugh Payne Assisting in photography	12 00		
C. Downey Lumber	27 19		
W. Menzies   Carpenter's work	8 00 1		
O. S. Keith & Co Plumbing work	2 00		
H. T. Smith Repairs to pump	2 40		
I. Tollis Water-tank	11 10		
. McLellan Removing night-soil	20 00		
Western Insurance Co Premium on insurance	40 00		
7. T. Kingston Petty cash disbursements	6 41		
AcComb & Walker Shingling Observer's residence	150 00		
. Myles Cordwood			
V. H. Hughes Repairs to chimney	4 42		
Frone, Patton & Co Ladder	4 50		
. Young Instruments	20 00		
- Davidson Binding register	4 50		
Bywater Repairs to Observer's houses	215 56		
	\		
Total		4,800	24

WM. SMITH,
Deputy Minister of Marine and Fisheries.

### APPENDIX No. 26.

STATEMENT of Expenditure on account of Kingston Observatory, for the Fiscal Year ended 30th June, 1878.

				_
		l		
		\$	c ·	ts.
Professor Williamson	Grant in Aid	5.0	0 O	w
110100001 11111111111111111111111111111			,0 (	,0

WM. SMITH,
Deputy Minister of Marine and Fisheries.

### APPENDIX No. 27.

STATEMENT of Expenditure in connection with the Meteorological Service for the Fiscal Year ended 30th June, 1878.

		ries.—(	Central Q	ffice.		\$	cts.	\$	ct
G. T. Kingston, M.A T. Menzies W. A. Stewart W. F. Davison	Twelve months' S	alary :	as Superi	intendent .		1,000	00		
T. Menzies	do	do		ant		300	00 j		
W. A. Stewart	do	do	do			300	00		
🕽 🗮 🕯 ( W. F. Davison		do	_ do			300	!		
U. Uarpmael, M.A		do		Superint		1,500			
A. Roberts		ďο		tor of Sta		800			
R. F. Stupart		do		ant		600 500			
Thos. H. Monk		do do		ponding C		458			
H. V. Payne	do	do	do	ыш (, , , , , , , , , , , , , , , , , , ,		450			
as. Young B. C. Webber	do	do	do			300	. 1		
C. E. Stewart	Salary as occasion	ıal Öle				200			
Davison	do	do		•••••		115	00		
I. P. Blackey		rv as (				74	10		
								6,897	35
	,	Chief &	Stations.		Į.				
Sydney, C.B	Then C Uil 19 v	nontha	oolory o	a Superint	andant		- 1		
sydney, C.B	1110s. O. miii, 121	поптив		d assistan		300	oo İ		
Julifor N S	F Allison W A		400 an	do	300	700			
Halifax, N.S St. John, N.B	G Murdoch C E		400	do	340	740	1		
redericton, N.B	Prof Harrison	,	<b>34</b> 0	do	260	600			
Intreal PO	C. H. McLeod. C.	E.,	300	do	200	500			
Woodstock. Ont	J. Montgomery.	,	240	do	160	400	00		
Winnipeg, Man	St. John's Colleg	e			,	800	00		
Woodstock, Ont Winnipeg, Man Spencer Bridge, D.C	J. Murray,		240 an	d assistan	ce 160	400	00	4,440	Λ
	Te.	legraph	i Stations	·.	-			4,440	Ů
					2100				
ydney, C.B	Thos. C. Hill,	Supt,		d assistan		432			
181118X, N.S	r. Allison, M.A.,		200	do	100 132	300			
hatham, N.B	G. A. Blair,		300 200	do do	60	432 260			
ather Point, P.Q	Contain Agha P	J				250			
nebec	W H McIntere	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		240	1		
ockliff.e	S Woods M A S	nnerin'	t. \$300 an	d assistan	ce \$132	432			
ort Dover	H. Morgan.	do	300	do	132	432			
ert Stanley		do	300	do	132	432			
augeen		do	300	do	100	400	00		
arry Sound	Rev. R. Mosley,	$d\mathbf{o}$	300	do	96	396	00		
ort Garry	J. Stewart,	do	300	do	132	432	00	4 400	Λ4
i	•			•	ļ			4,438	
	Reser	ve Teleg	graph Sta	tions.					
t. Andrews, N.B	Dr. S. T. Gove-12	months	s' salarv s	s Superint	tendent	300	00		
harlottetowni	H. J. Cundall, C.	E.,	do	do		300			
Brockville	W. R. Bigg,	•	do	ďο	•••	120			
tayner	R. J. Cole,		do	do		120	00	040	^^
•	•				I			840	w

# STATEMENT of Expenditure in crnnection with the Meteorological Service, etc.—Continued.

		Brought	forward			\$	cts.	\$ cts
		Drum St				******		10,015 50
St. John, N.B	J. B. Longley,	12 mor	ths' salary	as Agen	t	60	00	
Digby, N.SLiverpool, N.SLiverpool, N.SLiverpool, N.SLouishurg C.R.	W. H. Taylor,		do	do			00	
Halifay N S	Sergt Marshal	RE	do do	do			00	
Louisburg, C.B	W. H. Townsen	d.	do	do do			00	
Cow Bay, C.B	C. Archibald,	,	do	do			00	
Glace Bay, C.B	C. H. Rigby,		do	do			00	
Port Hastings, C.B	P. Grant,		ġο	do			00	
Pictou, N.S	M Campbell,	0	do	go	•••••		00	
Point du Chêne, N.B	Thos. E. Smith,	9	do	do			00	
Bathurst, N.B	H A Johnston	12	do do	do		100		
Dalhousie, N.B Percé	P Vibert.	9	do	do do	••••		00	
Gaspé	J. Eden.	9	do	do			00	
Quebec (Citadel)	Lieut, J. B. Done	ldson, 12	do	do		100		
Dobourg	F. Revnolds	9	do	do			00	
Port Hope		es, 9	do	do			00	
Foronto (Queen's Wharf)	Capt. A. Taylor	, 9	do	do			00	
Gibraltar Point	G. Durnan,	9	do	do		45	00	
Oakville	S. Bell, 21 days	9	do	фo		5	25	
damilton	G. Black	9	do	do			00	
HamiltonBurlington BeachPort Dalhousie	T. Campbell	9	do	do	•••••	_	00	
Port Calborns	D. Hugher	13	do	do	•••••		00	
Port Colborne			do do	do do	••••••		00 1	
Kincardine	Dr. DeWitt Mart	vn 12	do	do	!	100	00	
Saugeen	Thos. Davis	12	do	do			00	
resqu'Isle	J. Mackenzie	12	do	do			00	
Collingwood		12	дo	do	•••••		00	
		0	7				_	1,655 25
j		Spécial à	Station.		,		-	
Esquimalt, B.C	W. H. Bevis, 12	nonths' sa	lary as Su	perintend	ent.	···········		180 00
	Inst	ruments an	id Apparati	us.			1	
R. H. Scott, MA	Thermometers, &	c., from l	England			772	23	
J. Foster						0.40	!	
d. Turnbull	various instr					240		
Tagliabue	Self-recording in	gtruments		· · · · · · · · · · · · · · · · · · ·		224 211		
. Porter	Barometers			· · · · · · · · · · · · · · · · · · ·		165		
L. Hahl & Co	Anemographs					149		
Electric Hardware Co	Electrical suppli	es, &rc	•• •••••	· · · · · · · · · · · · · · · · · · ·		118		
V. H. Sparrow	Wind vanes and	drunis and	i rain recei	vers		81	30	
. Green.	Repairing barom	eters				78		
I. Pim	Castings, &c	3		••••		33		
I. A. Scadding	weather signs at	id stencii	plates		••••••	26		
Beckett	Wrenches for an	mometers	Are			11 11		
hos. Dean	Castings					8	1	
V. H. Rice.	Wire for thermor	neter shed	ls	•••••••••		5		
V. J. McGuire & Co	Anemometer tub					4		
		_			-		-	2,141 82
ļ	Fittings	and Repa	irs at Stati	ons.	İ			
. Peele	Fitting up instru	ments, &c	., at New	Westmins	ter,	50	00	
Valter Walker 1	B.C Fitting up anemo	meters, &	c., at Esqu	imalt, B.	j	45		
i			_	• • • • • • • • • • • • • • • • • • • •	-	95 (		20,592 42

# STATEMENT of Expenditure in connection with the Meteorological Service, etc.—Continued.

	Brought forward	\$ cts. 95 00	\$ ct 20,592 4
J. McWilliams F. B. Scofield G. A. Blair	Receptacle for records at Central Office	26 60 17 25 14 77 12 77 8 25 3 00	208 3
	Signal Masts, Drums, &c.		
J. McWilliams. J. Willet. Dr. DeWitt Martin Thos. C. Hill. C. H. Rigby. C. Archibald. P. Vibert. Pickford & Black F. Reynolds. R. Ross. J. L. Hemmeon. W. H. Townsend. Kerr & McKenzie W. Herrington. G. N. Davis. E. F. Dwyer J. Henderson. Wood & Legate. Capt. T. F. James. Dan. McDonald. G. N. Macdonald.	Fitting, rigging and painting at Point du Chêne Painting and repairing, &c., at Father Point Oiling and painting mast, &c., at Dalhousie, N.B Fixing mast at Kincardine. Repairs, &c., at Sydney, C.B. Rope and repairs at Little Glace Bay. Repairing drum, rope, &c., at Cow Bay Repairing drum and cost of messenger, &c., at Percé Lanterns and rope at Halifax. Sundry repairs, &c., at Cobourg Rope for halyards, &c., at St. Andrews Rope, &c., at Liverpool, N.S Oil and rope, &c., at Louisbourg Rope at Goderich Sundry repairs at Collingwood Oil, &c., at Goderich Sundries, oil, &c., at Port Dalhousie Rope at Collingwood do Hamilton Oil, &c., at Port Hope Reeving halyards at Sydney	24 25 15 00 13 25 10 97 10 95 9 00 6 92 6 92 6 30 5 88 4 69 3 44 3 00 2 96 2 80 2 50 2 47 2 45 1 80 1 15	175 87
Hunter & Co.  R. Wilkinson  Prout & Todd  Rowsell & Hutchison  F. Payne.  Fhos. H. Monk  Brown Bros  W. F. Davison  Globe Printing Co  Adam Miller & Co  J. Farthing  Hart & Rawlinson  L. M. More  G. M. Kingston  Rolph Smith & Co  R. Remington	Stationery, Books, &c.  Printing instructions, forms, tables, &c. Photographs of instructions.  Postage stamps, cards, &c.  Weather bulletins, reviews, &c  Printing forms, &c  do probabilities, forms, &c  Editing monthly weather review, &c  Envelopes, paper, pens, &c  Binding registers, &c.  Printing forms.  Binding books  Electric pen and appurtenances.  Nature and other books  Stamped and addressed U.S. envelopes, &c.  Drawing map.  Lithographing.  Type, &c  Subscription to Halifax Chronicle  do do Herald  do to City Directory	345 75 294 05 245 85 191 00 150 00 122 88 108 95 65 00	0.840.37
	Carried forward	-	2,740 17 23,716 81
•	324		43,110 02

# STATEMENT of Expenditure in connection with the Meteorological Service, etc.—Continued.

	Brought forward	\$ cts.	\$ cts. 23,716 81
	Telegraphy.		
Mantucal Talement Co	Messages, &c	4 470 94	
do	do from Parry Sound	4,478 84   175 91	
Dominion Telegraph Co. Western Union Telegraph	do	3,033 51	
H W Rurnett	do	772 75 480 00	
Thos. Hope	do do do	480 00	
L. M. More	do services as Agent at Buffalo	120 00	
W. S. Jewell	do do New York	118 09	
J. Fitzgerald	do do Messenger at Halifax		
Jas. Young.	Assistant Operator, Central Officedo do	96 00	
H. V. Payne		86 00	
F. Mosley.	12 months' salary as Messenger at Parry Sound	60 00	
Thos. C. Hill		60 00 1 30 00 1	
J. Fitzgerald	do Drum Messenger at Halifax	24 00	
	9 months salary as Drum Messenger, Port Stanley	15 00	
	Operator's services at Charlottetown	8 00	10,229 90
	Travelling Expenses.		10,420 00
S. A. Roberts	Inspecting stations	345 75	
G. T. Kingston	do &c	115 05	
Thos. H. Monk	To Washington and return from New York, &c,	29 64	
W F Devisor	Inspecting stations To Brampton and return	21 65 1 80	
	To brampton and return		513 89
	Freight, Cartage and Customs Dues.		ž
Canadian Express Co	Freight and dues on sundry parcels, to and from		
J Paraniasan	various parts	206 75 42 60	
G. T. Kingston	From Victoria to Quesnelle, B.C	54 31	
F. Kingston	Charges paid for freight, &c., from England	32 33	
B. Robinson	Customs dues, entries, &c	29 63 20 52	
Prof. J. E. Oram	Cases to Winnipeg Charges on cases to Windsor, N.S	7 50	
H. V. Frances	Freight on frames from Halifax	6 50	
N. Millov & Co	Cases from Montreal to Toronto	5 50 4 27	
L. B. Moodie	Sundries To Charlottetown,	4 08	
J. McWilliams	To Father Point	1 60	
T. S. Lindsay & Co	To Sydney, C.B	2 10	
Burchell, Mathison & Co.	To Charlottetown.  New Glasgow to Sydney	1 00	
J. L. Hemmeon	Charges at Liverpool, N.S	0 80	
F. Jones.	By Grand Trunk Railway To Parry Sound, etc	0 90 1 25	
Vicker's Express	To Parry Sound, etc		422 64
	Petty Expenses at Stations.		
Central Crice	G. T. Kingston	99 88	
Port Dover.	H. Morgan	30 00	
Uhatham	G A Blair	20 00	
Parry Bound	M. PayneRev. R. Mosley	20 00	
	Carried forward	180 68	34,883 24
1	Carried forward,	189 88	J21003 ME

STATEMENT of Expenditure in connection with the Meteorological Service, etc.—Concluded.

Petty Expenses at Stations.—Continued.	\$ cts	\$ cts.	D
Charlottetown	34,88 <b>3 24</b>	1 88	Brought forward
Kincardine			
Halifax			
Description		14 00	
Prof. Harrison		İ	lo W. Bowman 2 50
Prof. Harrison			io J. Fitzgerald 4 16
Esquimalt, B.C.   E. Marion.   \$2 00   do   do   P. Hunt.   2 00   do   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   5 00   G. Lange   1 00   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1 25   G. Lange   1			edericton Prof Harrison
Color		. 00	
Thos. C. Hill		1	do P. Hunt 2 00
Thos. C. Hill		~ oo	do G. Lange 1 00
Quebec Observatory         Capt. E. D. Ashe, R. N         1 25           Pictou         M. Campbell         4 05           Brockville         W. R. Bigg         0 50           Miscellaneous.           W. Menzies         Lumber         207 65           H. Downey         Lumber         207 65           W. J. Hughes         Digging drains, etc         173 83           H. J. Mathews & Bro         Probability frames, etc         140 80           B. C. Webber         Special night and Sunday service         110 00           J. Myles         Fuel         106 00           W. H. Sparrow         Oil and other sundries         98 73           Rice Lewis & Son         Hardware         78 09           W. Moor         Laborer         44 85           J. Wagner & Co         Window frames, etc         33 90           Abnsley & Barber         Rent of premises at Port Dover         30 00           Lyman Bros         Chemicals         29 07           T. Lockington         Shelves at Central Office         24 00           M. Payne         Rent of norm at Central Office         24 00           J. Armstrong         Stove         17 70           W. Gordon         Cappet         12			dner The C Hill
Quebec Observatory         Capt. E. D. Ashe, R. N.         1 25           Pictou         M. Campbell         4 05           Brockville         W. R. Bigg.         0 50           Miscellaneous.           W. Menzies         Carpentering (making thermometer sheds, etc)         364 23           H. Downey         Lumber.         207 65           W. M. Hughes         Pigging drains, etc         173 83           H. J. Mathews & Bro         Probability frames, etc.         140 80           B. C. Webber         Special night and Sunday service         110 00           J. Myles         Fuel         106 00           W. H. Sparrow         Oil and other sundries         98 73           Rice Lewis & Son.         Hardware         78 09           W. Moor         Laborer         44 85           J. Wagner & Co         Window frames, etc         36 10           Gas Consumers Co         Gas         33 90           Ansley & Barber         Rent of premises at Port Dover         30 00           Lyman Bros         Chemicals         29 07           T. Lockington         Shelves at Central Office         28 00           J. Armstrong         Steves at Central Office         24 00           G. Bingham<			ebec Lieut, J. B. Donaldson
Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Miscellaneous.   Misc		1 25	
Miscellaneous.			
W. Menzies         Carpentering (making thermometer sheds, etc)         364 23           H. Downey         Lumber         207 65           Wm. Milligan         Painting         196 85           W. J. Hughes         Digging drains, etc         173 83           H. J. Mathews & Bro         Probability frames, etc         140 80           B. C. Webber         Special night and Sunday service         110 00           J. Myles         Fuel         106 00           W. H. Sparrow         Oil and other sundries         98 73           Rice Lewis & Son         Hardware         78 09           W. Moor         Laborer         44 85           J. Wagner & Co         Window frames, etc         36 10           Gas Consumers Co         Gas         33 90           Ansley & Barber         Rent of premises at Port Dover         30 00           Lyman Bros         Chemicals         29 07           T. Lockington         Shelves at Central Office         28 00           J. Merryfield         Rent of norm at Central Office         24 00           M. Payne         Rent of anemometer ground at Port Stanley         24 00           G. Bingham         Guttering, etc         22 30           J. Armstrong         Stove <td< td=""><td>253 58</td><td>0 50</td><td>OCKVIIIe</td></td<>	253 58	0 50	OCKVIIIe
W. Menzies			Miscellaneous.
H. Downey			
Wm. Miligan         Painting         196 85           W. J. Hughes         Digging drains, etc         173 83           H. J. Mathews & Bro         Probability frames, etc         140 80           B. C. Webber         Special night and Sunday service         110 00           J. Myles         Fuel         106 00           W. H. Sparrow         Oil and other sundries         98 73           Rice Lewis & Son         Hardware         78 09           W. Moor         Laborer         44 85           J. Wagner & Co         Window frames, etc         36 10           Gas Consumers Co         Gas         33 90           Ansley & Barber         Rent of premises at Port Dover         30 00           Lyman Bros         Chemicals         29 07           T. Lockington         Shelves at Central Office         28 00           J. Merryfield         Rent of room at Central Office         24 00           M. Payne         Rent of anemometer ground at Port Stanley         24 00           G. Bingham         Guttering, etc         22 30           J. Armstrong         Stove         17 70           W. Gordon         Carpet         12 43           Phos. Carroll         Lumber         11 40			Menzies Carpentering (making thermometer sheds, etc)
W. J. Hughes.       Digging drains, etc.       173 83         H. J. Mathews & Bro.       Probability frames, etc.       140 80         B. C. Webber.       Special night and Sunday service.       110 00         J. Myles.       Fuel.       106 00         J. Walles.       Fuel.       98 73         Rice Lewis & Son.       Hardware.       78 09         W. Moor.       Laborer       44 85         J. Wagner & Co.       Window frames, etc.       36 10         Gas Consumers Co.       Gas.       33 90         Ansley & Barber.       Rent of premises at Port Dover       30 00         Lyman Bros.       Chemicals.       29 07         T. Lockington       Shelves at Central Office.       28 00         J. Merryfield       Rent of room at Central Office.       24 00         M. Payne.       Rent of anemometer ground at Port Stanley.       24 00         G. Bingham       Guttering, etc.       22 30         J. Armstrong.       Stave       17 70         W. Gordon.       Carpet.       12 43         Phos. Carroll.       Lumber.       11 90         W. Menton.       Labour.       11 40         R. Crawford.       do       9 90         Catto & Co.			Downey Lumber
H. J. Mathews & Bro			
B. C. Webber			
W. H. Sparrow       Oil and other sundries       98 73         Rice Lewis & Son       Hardware       78 09         W. Moor       Laborer       44 85         J. Wagner & Co.       Window frames, etc       36 10         Gas Consumers Co.       Gas       33 90         Ansley & Barber       Rent of premises at Port Dover       30 00         Lyman Bros       Chemicals       29 07         T. Lockington       Shelves at Central Office       28 00         J. Merryfield       Rent of room at Central Office       24 00         M. Payne       Rent of anemometer ground at Port Stanley       24 00         G. Bingham       Guttering, etc       22 30         J. Armstrong       Stove       17 70         W. Gordon       Carpet       12 43         Thos. Carroll       Lumber       11 90         W. Menton       Labour       11 40         R. Crawford       do       10 00         D. Henry       do       5 85         Thos. Dean       Sundries       5 85         Thos. Dean       Sundries       5 40         H. V. France       Sundries       9 58         Jas. Spence       Ice (two tons)       5 00			C. WebberSpecial night and Sunday service
Rice Lewis & Son.       Hardware       78 09         W. Moor.       Laborer       44 85         J. Wagner & Co.       Window frames, etc       36 10         Gas Consumers Co.       Gas.       33 90         Ansley & Barber.       Rent of premises at Port Dover       30 00         Lyman Bros       Chemicals.       29 07         T. Lockington       Shelves at Central Office       28 00         J. Merryfield       Rent of room at Central Office       24 00         M. Payne       Rent of anemometer ground at Port Stanley       24 00         G. Bingham       Guttering, etc.       22 30         J. Armstrong       Stove       17 70         W. Gordon       Carpet       12 43         Thos. Carroll       Lumber       11 90         W. Menton       Labour       11 40         R. Crawford       do       10 00         D. Henry       do       90         Catto & Co.       Sundries       8 12         J. Rennie       Repairing slate roof       5 85         Thos. Dean       Sundry cas'ings       5 40         H. V. France       Sundries       9 58         Jas. Spence       Ice (two tons)       5 00			
W. Moor       Laborer       44 85         J. Wagner & Co.       Window frames, etc       36 10         Gas Consumers Co.       Gas       33 90         Ansley & Barber       Rent of premises at Port Dover       30 00         Lyman Bros       Chemicals       29 07         T. Lockington       Shelves at Central Office       28 00         J. Merryfield       Rent of room at Central Office       24 00         M. Payne       Rent of anemometer ground at Port Stanley       24 00         G. Bingham       Guttering, etc       22 30         J. Armstrong       Stove       17 70         W. Gordon       Carpet       12 43         Thos. Carroll       Lumber       11 90         W. Menton       Labour       11 40         R. Crawford       do       9 90         Catto & Co       Sundries       8 12         J. Rennie       Repairing slate roof       5 85         Thos. Dean       Sundries       5 40         H. V. France       Sundries       9 58         Jas. Spence       Ice (two tons)       5 00         C. Thompson       Candles, soap, etc       3 70         J. Leslie       Photographic supplies       1 70 <td></td> <td></td> <td>ce Lewis &amp; Son Hardware</td>			ce Lewis & Son Hardware
Gas Consumers Co.         Gas			
Ansley & Barber. Rent of premises at Port Dover 30 06  Lyman Bros Chemicals 29 07  T. Lockington Shelves at Central Office 28 00  J. Merryfield Rent of room at Central Office 24 00  M. Payne Rent of anemometer ground at Port Stanley 24 00  G. Bingham Guttering, etc 22 30  J. Armstrong Stove 17 70  W. Gordon Carpet 12 43  Thos. Carroll Lumber 11 90  W. Menton Labour 11 40  R. Crawford do 10 00  D. Henry do 90  Catto & Co. Sundries 812  J. Rennie Repairing slate roof 585  Thos. Dean Sundry castings 540  Ly France Suudries 500  C. Thompson Candles, soap, etc 300  J. Leslie Rent of post-office box 517  Photographic supplies 170			Wagner & Co Window frames, etc
Lyman Bros         Chemicals         29 07           T. Lockington         Shelves at Central Office         28 00           J. Merryfield         Rent of room at Central Office         24 00           M. Payne         Rent of anemometer ground at Port Stanley         24 00           G. Bingham         Guttering, etc         22 30           J. Armstrong         Stove         17 70           W. Gordon         Carpet         12 43           Thos. Carroll         Lumber         11 90           W. Menton         Labour         11 40           R. Crawford         do         10 00           D. Henry         do         9 90           Catto & Uo         Sundries         8 12           J. Rennie         Repairing slate roof         5 85           Thos. Dean         Sundries         9 58           Jas. Spence         Ice (two tons)         5 00           C. Thompson         Candles, soap, etc         3 70           J. Leslie         Photographic supplies         1 70			S Consumers Co  Gas
T. Lockington       Shelves at Central Office       28 00         J. Merryfield       Rent of room at Central Office       24 00         M. Payne       Rent of anemometer ground at Port Stanley       24 00         G. Bingham       Guttering, etc       22 30         J. Armstrong       Stove       17 70         W. Gordon       Carpet       12 43         Thos. Carroll       Lumber       11 90         W. Menton       Labour       11 40         R. Crawford       do       10 00         D. Henry       do       900         Catto & Co       Sundries       8 12         J. Rennie       Repairing slate roof       5 85         Thos. Dean       Sundry castings       5 40         H. V. France       Sundries       9 58         Jas. Spence       Ice (two tons)       5 00         C. Thompson       Candles, soap, etc       3 70         J. Leslie       Rent of post-office box       3 00         J. Palmer       Photographic supplies       1 70			
J. Merryfield       Rent of room at Central Office.       24 00         M. Payne			Lockington Shelves at Central Office
G. Bingham       Guttering, etc.       22 30         J. Armstrong       Stove       17 70         W. Gordon.       Carpet.       12 43         Phos. Carroll       Lumber.       11 90         W. Menton       Labour       11 40         R. Crawford       do       10 00         D. Henry       do       9 00         Catto & Uo.       Sundries       8 12         J. Rennie       Repairing slate roof       5 85         Phos. Dean.       Sundry castings       5 40         H. V. France       Sundries       9 58         Jas. Spence.       Ice (two tons)       5 00         C. Thompson       Candles, soap, etc       3 70         J. Leslie.       Rent of post-office box       3 00         J. Palmer       Photographic supplies       1 70		24 00	Merryfield Rent of room at Central Office
J. Arnistrong			Payne Rent of anemometer ground at Port Stanley
W. Gordon       Carpet       12 43         Phos. Carroll       Lumber       11 90         W. Menton       11 40         R. Crawford       do       10 00         D. Henry       do       9 90         Catto & Co       Sundries       8 12         J. Rennie       Repairing slate roof       5 85         Phos. Dean       Sundry cas ings       5 40         H. V. France       Sundries       9 58         Jas. Spence       Ice (two tons)       5 00         C. Thompson       Candles, soap, etc       3 70         J. Leslie       Rent of post-office box       3 00         J. Palmer       Photographic supplies       1 70			
Thos. Carroll   Lumber   11 90   12 40   14 40   14 40   14 40   15 40   16 40   16 40   16 40   17 40   18 40   18 40   19 90   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19 40   19			
R. Crawford       do       10 00         D. Henry       do       9 00         Catto & Co       Sundries       8 12         J. Rennie       Repairing slate roof       5 85         Phos. Dean       Sundry cas ings       5 40         H. V. France       Sundries       9 58         Jas. Spence       Ice (two tons)       5 00         C. Thompson       Candles, soap, etc       3 70         J. Leslie       Rent of post-office box       3 00         J. Palmer       Photographic supplies       1 70			
D. Henry			
Catto & Co.       Sundries.       8 12         I. Rennie.       Repairing slate roof.       5 85         Phos. Dean.       Sundry casings.       5 40         H. V. France.       Sundries.       9 58         Jas. Spence.       Ice (two tons).       5 00         D. Thompson.       Candles, soap, etc.       3 70         J. Leslie.       Rent of post-office box.       3 00         J. Palmer.       Photographic supplies       1 70			
Rennie			tto & Co. Sundries.
Thos. Dean			Rennie Repairing slate roof
Jas. Spence		5 40	os. DeanSundry castings
C. Thompson			V. FranceSundries
J. Leslie			
J. Palmer Photographic supplies 170			Leslie
	1 000 10		Palmer Photographic supplies
	1,863 18		
37	7,000 00	-	

WM. SMITH,
Deputy Minister of Marine and Fisheries.

#### APPENDIX No. 28.

#### REPORT OF MARINE AND IMMIGRANT HOSPITAL AT QUEBEC FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

MARINE HOSPITAL, Quebec, 14th September, 1878.

Sin,—The Trustees of the Marine and Immigrant Hospital of Quebec have the honour to submit their Annual Report for the fiscal year 1877-78, as well as the annual report of the Resident Physician on the admissions, discharges and deaths

that have occurred in the hospital during the same period of time.

A detailed statement of the expenses incurred for the maintenance of the hospital accompanies this report. Although the amount of the expenses this year is nearly the same as it was last year, yet the Trustees have effected a relative reduction in the cost of the maintenance of the hospital, or they have been obliged to maintain a more numerous staff than usual on account of the great number of fever cases that were admitted, especially during the months of September and October.

The Trustees consider it their duty to again call your attention to the state of the flooring in the halls and corridors; in spite of the numerous repairs which in a little while it will be necessary to bestow on it, it is so much disjointed and is

devoid of paint that it will end in becoming a cause of insalubrity.

All which is respectfully submitted.

(Signed) P. WELLS, M.D.,

Secretary.

The Honourable

Minister of Marine and Fishries.

PATIENTS treated in the "Marine and Emigrant Hospital" at Quebec, from 1st July, 1877 to 30th June 1878:—

Immigrants "Residents"       6         Residents "       405         928         Number of Days in Hospital.         Seamen       7,291         Immigrants       58         Residents       15,805         23,154         Deaths during the same Period.         Seamen       13         Immigrants       0         Residents       26	Seamen treated	518
Number of Days in Hospital.   7,291	Immigrants "	. 6
Number of Days in Hospital.         Seamen       7,291         Immigrants       58         Residents       15,805         23,154         Deaths during the same Period.         Seamen       13         Immigrants       0         Residents       26	Residents "	405
Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Table   Tabl		928
Immigrants         58           Residents         15,805           23,154           Deaths during the same Period.           Seamen         13           Immigrants         0           Residents         26	Number of Days in Hospital.	
Immigrants         58           Residents         15,805           23,154           Deaths during the same Period.           Seamen         13           Immigrants         0           Residents         26	Seamen	$7,\!291$
Deaths during the same Period.	Immigrants	58
Deaths during the same Period.  Seamen	Residents	15,805
Seamen	•	23,154
Immigrants	Death's during the same Period.	10
Residents	Seamen	
Tuesta de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della	Immigrants	
39	Residents	20
		39

L. CATELLIER, M.D.,

Resident Physician.

STATEMENT of Expenditure on account of the Marine and Immigrant Hospital, Quebec, for Fiscal Year ended 30th June, 1878.

		\$ cts.	\$ cts
	12 months' salary as Chairman of Commissioners		400 00
O. Robitaille, M. D	do Commissioner		200 00
P. Wells, M.D	do Secretary-Treasurer		600 00
J. E. Laudry, M.D	do Visiting Physiciando do do		400 00 400 00
A. Rowand, M.D	do do		400 00
J. Lemieux, M.D			300 00
J. Catellier, M.D			
Samuel Hobbs	do Orderly		
Patrick Barry			
	Pay as Orderly	113 00	
Wm. Vaillancourt	do Porter	154 00	
Henry Hunt	do Outside Porter	168 00	
Matthew Sullivan		168 00	
John Flynn			
Marie Benning		50 00	
Ann McGrath		120 00	
Ann Jacobs		120 00	
Bridget Donnell		95 00	
Clementine Quellette		60 00	
Jane O'Neill		6 00	
Eliza Dunn	12 months' wages as Serving Maid	96 00	
Margaret Dunn	do Cook for officers	96 00	
Marie Matron	do Charwoman	, 60 99	
Marie Quinn	do for washing	55 83	
<b>A.</b> Doremend	Work as Nurse.	5 33	
Mary Ann Neill	12 months' wages as Housemaid	66 00	
C. Hobbs	, Washing	3 00	
	Pay as Fever Nurse	10 00	
Jane Ross		7 66	
Adéle Ouellette		13 60	
John Chainberlin	Night attendance	7 75	
Jane Ryan	Wages as Nurse	64 00	
Marie Dorion	do do	5 33	
Catharine Kyan	do do	40 00	
Jane Doyle	Unarwork	22 00	
Marie Ferrier		15 00	
Adéle Matron	do	16 50	
fatrick filelall.	Whitewashing cellars	12 50	
Madam Darrault	Cook	5 50	
John Deeren	House-cleaning		
Ann Decam	Night Watchman	3 00	3,171 64
C T Com	Advertising in Daily Mercury	7 80	3,111 0
WAY F. Bannat	Madicines	50 65	
I. I.aggard	Medicines	1,020 94	
Allene Reak Co	Freight on drugs	5 13	
Onehec Gas Company	Gas		
A. Mulhalland	Plumbing work and materials	455 20	
S Mosemen	Plumbing work and materials Vegetables, &c Coals	973 12	
C. Poston & Co	Coals	208 35	
T. Hudon	Flannel, cotton, ticking, bedding, &c.	663 01	
P. Valliere	Flannel, cotton, ticking, bedding, &c	96 00	
L. Catellier	Surgical instruments	75 30	
Rev J. P. Sexton	Allowance as Chaplain	144 00	
Rev. J. S. Sykes	do do	144 00	
Rev. J. P. Sexton	10 interments	20 00	
A. Laberge	Joiner work	.1 309 93 1	
M. Brophy	Milk	1.371 65	
Geo. Cook	'Smith's work	101 25	
F. Lemieux	Stationery	.   21.75	
N. Picard	Smith's work and tin	60 83	
Quebec Water Works	Water	600 00	
J. Drolet	Washing	533 54	
_ do	Water Washing Straw	11 30	
James McCorkell	Bread	1,004 50	
	1		5,571 6
	' Carried forward	8,507 69	

STATEMENT of Expenditure on account of the Marine and Immigrant Hospital, Quebec, etc.—Concluded.

		\$ cts.	\$ cts.
	Brought forward		5,571 64
	•	<b>!</b> '	i '
John Musson & Co	Drugs	136 99	i
Jas. McCone	Groceries	1,955 15	1
Thos. Delany	Pork and beef	2,439 20	l
O. Gravel	Cutting wood	150 60	1
J. E. Burke	Drugs	67 60	•
Dublin Apothecaries'		ì	1
Hall	do	367 07	ł
Thomas Norris	Crockery	93 91	1
Thomas Andrews	Gasfitting	65 24	i
do	Hardware	134 14	l
Royal Insurance Co	Premium on insurance	177 68	1
Lewis Gagnon	Ice	28 00	1
S. Marcotte	Ice Printing forms.	27 50	1
P. La Brie	Joiner's work	34 91	ł
A. Côté & Co.	Advertising	15 40	1
J. R. Boswell	Ale	21 00	ļ
	Bread		1
P. F. Renfret.	Drugs	10 00	}
F. Lemieux	Stationery	32 95	
	~ · · · · · · · · · · · · · · · · · · ·		14,415 86
j			
	Total	/*******	19,987 50
			,

WM. SMITH,
Deputy Minister of Murine and Fisheries.

### APPENDIX No. 29.

REPORT OF THE MARINE HOSPITAL, ST. JOHN, N.B. FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

St. John, N.B., 8th July, 1878.

SIR,—The Commissioners of the Marine Hospital at the Port of Saint John, New Brunswick, respectfully submit their Annual Report of the Hospitals under their charge for the year ending 30th June, 1878; and the Medical Officer's return of sick and disabled seamen admitted in the Hospital for the same period.

On the 1st day of July, 1877, there remained in the "Kent" Hospital ten (10) seamen under medical charge, and one hundred and forty-three (143) were subsequently admitted, making one hundred and fifty-three (153) sick and disabled seamen received for medical treatment during the year, of which number one hundred and forty (140) were duly discharged, one died and 12 remained under treatment on 1st July, 1878.

Dr. Botsford, the Medical Officer, in his Annual Report to the Commissioners states that "The rate of mortality is the lowest on record in the Institution, and "demonstrates the fact that your Hospital is not behind any other in the matter of "diet, care and treatment."

The quarterly account of expenditure for all Hospital requirements with vouchers and receipts for the Department are now forwarded, amounting to the sum of four thousand three hundred and eighty dollars and seventy-two cents (\$4,380.72) for the year ending 30th June, 1878, the amount required for our quarterly payments being duly received.

The duties required of the officers in charge of the sick wards continue to be performed in their approved and efficient order, and the Mcdical Officers report that all supplies required continue of approved quality and that the sick and disabled seamen have all comfort available in the old hospital building.

The general health of seamen arriving at our Port the past year was good and the Medical Officers in charge of the Pest House on Partridge Island reports the same free from any infectious disease during the past year.

All which is respectfully submitted.

CHARLES WARD, Secretary & Treasurer. JOHN WISHART, CHARLES McLAUCHLAN, Commissioners.

SIR ALBERT J. SMITH,
Minister of Marine and Fisheries,
Ottawa, Canada.

### APPENDIX No. 30.

STATEMENT of Expenditure on account of Marine Hospitals, Sick and Disabled Seamen and Shipwrecked and Distressed Seamen, for the Fiscal Year ended 30th June, 1878.

	PROVINCE OF ONTARIO.				
Thos. Burns, Treasurer	ST. CATHARINES HOSPITAL.  Annual Grant for support of sick seamen	1	cts.	\$ 500	eta 00
J. J. Burrowes, Honorary	KINGSTON HOSPITAL.  Annual Grant for support of sick seamen	•••••		500 1,000	
	PROVINCE OF QUEBEC.				
Andrew Robertson	MONTREAL GENERAL HOSPITAL.  Treasurer, maintenance of sick seamen for season ended 30th November, 1877, 2,239 days at 90c  SICK AND DISABLED SEAMEN.			2,015	10
Jr. Pidgeon	Boarding sick seamen at Percé	25 5 38 42 72 17 41 12 19 6 58	90 50 00 50 50 00 50 50 00 00 00 00 00 00		

STATEMENT of Expenditure on account of Marine Hospitals, Sick and Distressed Seamen, etc.—Continued.

•	PROVIN	CE OF Q	UEBEC.—Continued.			
	SHIPWRE	CKED AND	DISTRESSED SEAMEN.	\$	cts.	\$ ct
osenh Eden	Expenses of w	recked sesi	men ex "Maria Almida".	18	00	
. L. Gauvreau		do	"Minerva"		05	
oseph Eden		do	"Glenfarren"		20	
do		do	"Georgina"		20	
. J. Fox	·i do	do	"Glenfarren"	22	00	
on. D. E. Shea	. Expenses school	oner "Ida	"	60	90	
udson Bay Co	Expenses of w	recked sear	men from Natashquan to		- 1	
•	Mingan			93	80 ¦	
apt. Poirier	Expenses of cr	ew of "Da	y Spring"	U(	00	
apt. H. Bohn	Subsistence of	wrecked c	rew of "Chillianwallah."		45 !	
. McDonald	. Railway fares	and board	of 6 seamen, from Pictou			
	to Quebec.		************	68	40	
					<u> </u>	<b>579</b> 0
	i		i		[-	
		BOARD (	F TRADE.		1	
ecountant, Board o					i	
	To reimburse e	xpenses of	wrecked crew ex "Eliza-		!	
do			beth"		82	
do	· do	do	" J. W. Scott"		91	
do	. d0	фo	"Emma Pemberton."		82	
do	. do	do	" Willie "		88	
do		do	"Grecian Bend"		52	
do	1 77	do	"Sunny Region"		76	
do	do do	do	"Champion"		19	
do		do	"T. A. Frost"		92	
do	do	do	"Pampero"		87	
do		do	"Saxon".		42	
<u>ښ </u>	·j do	do	"Lillian Cameron"		58	
do	· do	do	"Ranger"		36	
do		do	" Peret "		01	
do	·  do	do	"Rockport"		64	
٠٠٠٠ do	do do	фo	"Foam"		49	
do	.) do	do	"Thetis"		04	
do	do	do	" Iris"	78	86	
do	do	do	"Hannah," "Che- viot," "Helen" and			
a.,	1 3.	<b>a</b> .	"Roderick Rose"	394	70	
do	· do	do	"Idalia," "Don Pe-			
a	<b>a</b> _	a .	dro" and "Quaro"		73	
do	· do	ďο	"Starlight"		00	
do	do	do	"John Harley"		89	
do	do	do	"Decori"		06	
do	. do	do	"Sabani" Beauty"		43	
do	. do	do	Geauty "	45	63	
do	do	сb	"R. J. F. Freeman," and		ı	
	ï		"Naomi" and	105	. 45	
	!		" Belle"	125	45	2,491 9

	PROVINCE OF NEW BRUNSWICK.		
	THOUSAGE OF MAN BROKEWICK.		
	SHIPWRECKED AND DISTRESSED STAMEN.	\$ cts	\$ cts.
	Expenses burying George Humphrey	9 50	
W. J. Keater Small & Hatheway	Passage of seamen to Digby	4 00 10 50	
D. Bridgeo	Boarding 5 seamen, schooner "Charlotte," 2 days		į
Small & Hatheway	Passage of seamen to Kentville	7 50 15 40	į
J. G. C. Blackhall	do Caraquet	5 00	
,	Boarding seamen, schooner "J. W. Dean" four days	10 50	
O. Blois	Passage of seamen "Ida May"	7 66	į
J. 17. NEUV	Clothing for do do	44 00 11 73	į
do do	do from Pictou to Arichat	23 00	
Mrs. McFadden	Passage of seamen, Richibucto to St. John	7 00 6 00	ļ
W. J. O'Brien	Relief of crew, schooner "John Nelson."	12 10	1
Intercolonial Railway	Passage of seamen, schooner "John Nelson," to Halifax	65 55	1
O, Blois	Passage of 2 seamen to Halifax	8 00	
H. A. Sormany	Board and expenses of crew, schooner "John Nelson."	78 79	i
R. D. Gilchrist	Passage of Albert Bennett	1 80	
James A Burns	Board of 5 seamen from "Big Confederate," 2 days Ulothing for 5 wrecked seamen, "Ex-Confederate"	10 00 48 00	İ
	Medical attendance on 1 seaman do	2 00	
			388 03
	MARINE HOSPITALS AND SICK SEAMEN.		! !
	St. John.		
Dr. L. B. Botsford	Salary as Physician, from 1st July, 1877, to 30th	<b>56</b> 0 00	
Dr. W. S. Harding	Salary as Inspecting Physician to Pesthouse, from		
Charles Ward	Salary as Secretary, from 1st July, 1877, to 30th	100 00	
Rev. Wm. Armstrong	June, 1878Salary as Chaplain, from 1st July, 1877, to 30th	400 00	İ
	June, 1878	100 00	
Milton Barnes	12 months' wages as Steward, from 1st July, 1877, to 30th June, 1878	300 00	1
Mrs. Barnes	12 months' wages as Matron, from 1st July, 1877, to 30th June, 1878	80 00	
Milton Barnes	12 months' allowance for board	73 00	
Mrs. Barnes	Paid 12 months' wages to cooks	. 73 00 48 00	
do	Beef, bread, barley, potatoes and sugar	29 48	
		1,763 48	-
	Less provisions consumed by Steward	48 00	-
0 + D	2 mandad manage Number of Vent Homital St	1,715 48	
U. A. Barnes	3 months' wages as Nurse at Kent Hospital, St.	36 00	l i
do	3 months' allowance for board	48 00	
D. Tennent	12 months' wages as Assistant Nurse at Kent Hos- pital, St. John	120 00	
do	12 months' allowance for board	192 00	
Thomas Nickerson	9 months' wages as Assistant Nurse at Kent Hos- pital, St. John	90 00	i
	Carried forward	2,201 48	
	333	2,201 20	

#### PROVINCE OF NEW BRUNSWICK .- Continued.

	Brought forward	\$ 2,201	cts.	\$ cts.
	MARINE HOSPITALS, &c.—Continued.			
	St. John.—Continued.	 		Ì
do9	months' allowance for board.	144	00	
Bryden Bros Br	read account		26	
M. Rvan   Br	utchers' account	163		ļ
Jordine & Co(G)	rocery do	287	32	1
M. Barnes Mi	ilk and potatoes		32	Ì
St. John Water Commis-	as and meter rent, coal, tar and fire-brick		45	•
Sioners12	months' supply, \$36; assessment, \$14	50	00	Í
Tohn Chalener Dr	ashing 111 doz, at 60 centsrugs and medicine		60	
Wm Cole	ardener, 40 days' labour	47	50 25	İ
Willis & Mott	dvertising tenders for supplies	12	00	1
Wm. Elder	do do	! 14	00	l
G. W. Day Pr	rinting blanks	2	00	İ
Troon & McLaughlin Er	nglish Ensign	$1\overline{2}$	50	ļ
C. E. Burnham & Co 1	oak chair	1	25	1
John F. Masters, Di	uty on mattresses, freight and cartage		45	
	umber			
G. F. Fisher	oofing, 732 feet	. 27	45	!
Beard & Venning	500 feet clapboards	17	80	!
W Ennia	days' carpenter workdo	12	00	İ
J. Smith			00 <b>5</b> 0	l
F. Grocker10			50	1
Clarke, Kerr & Thorne Hs	ard ware	91	70	i
T. Smith Pa	ainting fence, 10 daysabour at garden, 98 days, at \$1.25	10	00	1
Thos. Cole La	abour at garden, 98 days, at \$1.25	122		
Owan Nicholson 7 o	days' labour at drain and roof	7	00	:
John Burk   He	earse and coach hire	5	50	1
St. John Cemetery Co Bu	arial fees		20	l
McKarlane & Dunbrack So	older, labour and lead pipe	57	46	
r b Tonos & Co	loads gravel	4	80	l
W A Hamilton Me	aking cheets	30	47 90	1
Water Commissioners Pe	ermit to sewer	10	00	
Bowes, Campbell & Ellis Co	opper kettle	7	01	i
A. B. Street W	hiskey and wine	7	80	
Peter Ratchford La	abor on sewer		00	Ì
J. Donohue Co	oaching	9	00	1
North British & Mercan-	(1-)			}
	months' premium on policy to March, 1879		00	
Can DeForest Po	hitewashing and lime		50	ļ
	ankets, grey cottons, &c		95 40	•
L Oakes	loads manure	12	50	
C. H. Hall St	ationery	3	46	
P. Hanlan Fr	resh fish	Õ	66	
J. Lane W	heelbarrow	7	00	
R. Robertson Cl	hamberware	2	25	
Ellis & Armstrong Ac	dvertising tenders for supplies	5	00	
H. GaltOr	ne ton straw	11	10	ţ
K. P. McGivernICo	oal—9 chaldrons at \$6.30, \$56.70; 10½8 chaldrons		~~	
D Ostomoro	at \$6.00, \$65.55	122		1
Rarnas & Co	elastic felt pillowsationery		00 50	
J. Hamilton	bikes		00	1
	······································	4	00	l
	Carried forward	4,268	24	
	0.54	-,-00		

3:4

5,646 26

### STATEMENT of Expenditure on account of Marine Hospitals, Sick and Distressed Seamen, etc.—Continued.

#### PROVINCE OF NEW BRUNSWICK .- Continued. cts. \$ cts. Brought forward..... 4,268 24 MARINE HOSPITALS, &c .- Continued. St. John .-- Continued. James Harris & Co...... Furnace door, hooks, &c..... 7 47 5 43 23 88 4 50 J. McCutcheon.....Ladder and boards.... 6 60 D. W. Clark......Contract building fence ...... 490 00 C. E. Harding ......Lumber.... 26 65 John Doherty......Repairs to roof..... 18 00 J. Collins......Potatoes...... 13 50 Z. Davis......Firewood<sup>1</sup>...... 51 10 4,915 37 Dalhousie. W. Montgomery...... Paid Dr. Desbrow, medical attendance sick seamen 85 00 do. James Thompson, boarding seamen 28 days ... 24 60 do S. Shaw, for medicines 1 25 110 85 Buctouche. Dr. F. E. W. Pouliot..... Professional attendance and medicine ...... 25 75 Shediac. Dr. Charles Theal........Professional attendance and medicine for 1877..... 360 29 Hopewell. 25 00 J. Carnwaith ...... Board of seaman, James Nowlan, 1 year..... 15 00 ďΛ 40 00 Hillsborough. W. H. Robinson...... Boarding seamen 26 weeks at \$2.00, \$52.00; medi-58 50 64 00 Mrs. W. H. Robinson..... Boarding seaman 5 weeks at \$2.00, \$10.00; funeral expenses, \$12.00 ..... 22 00 144 50 Caraquet. Philip Rivé. ..... Boarding three seamen, two days each, at \$1 ....... 6 00 Richard Blackhall ...... 2 00 ďο ďΩ one do Passage of three seamen from Caraquet to Pas-Alex. Rive...... pebiac ..... 4 50 Samuel Paulin 13 days' board of seaman, at \$1. Louis Fossard, M.D. Professional attendance... 13 00 24 00 49 50

Carried forward.....

335

PROVIVOE	OF	NEW	BRUNSWICK	Continued

	Brought forward	\$ cts.	\$ c1 5,646 2
	MARINE HOSPITALS, &C Continued.		,
	Bathurst.		
S. L. Bishop	Half year's professional attendance, to [31st] Dec.,		
Fergusou, Rankin & Co.	Repairing stove, premium on insurance policy and	20 00	
Mrs. Miller	Nursing and attendance, 56 days at 50c		
	Half year's allowance for fuel, to 31st Dec., 1877	28 00 12 50	
đo	Paid John Miller, nursing S. Cunningham, 28 days.	28 00	
Hon J Ferguson	Paid for washing for S. Cunningham	1 50 11 99	
Hon. v. Perguson	to per cont. commission on dispursements	11 93	131 9
	Richibucto.		
M F Edger	Drugs	18 54	
Simon Graham	Drugs	13 70	
J. W. Doberty, M.D	Freight on drugs	1 13	
	30th September	25 00	
A. A. Davidson	12 months' insurance premium on policy Paid Matron, 115 weeks' board of seamen at \$3	10 00	
do	do 12 months' wages at \$6	344 98   72 00	
ao	r dei, cotton, oil, stovepipe, and repairs to pump	152 09	
do	5 per cent. commission on disbursements	28 44	665 8
	Sackville.		005 00
r 1 77 1	77		
saac Crocker	Factory cotton and ticking	10 23 225 00	
Alex. Fleming, M.D	9 do professional attendance \$187 50	225 00	
do	Telegrams, expenses digging grave and	1	
	medicine	200 15	
saac Crocker	Boarding seamen, 169 weeks and 1 day at \$4	676 52	
ohn Ford	Blankets	44 50	
B. Barker	Drugs	4 00 43 09	
has. Fawcet	Stove	9 41	
			1,212 90
	St. Andrews.		
S. T. Gove, M.D	12 months' salary as Medical Superintendent	200 00	
harlotte Coates	do Matron	208 00	
do	Boarding seamen, 76 weeks and 1 day at \$1.50 Paraffine, repairs to stove, carting and piling wood	114 28	
ì	and allowance for soan	24 16	
badiah Conley	Repairs to cupola and roof	9 21	
V. B. Morris	Repairs to cupols and roof	30 25	
eonard Unase	2 tods coal and cartage	2 00   13 75	
Vm. Whitlock	Lead and oil	10 58	
onn Brownrigg	Wood and truckage	21 75 6 55	
Annual of Print office		0 00	640 53
l l		<u> </u>	

	PROVINCE OF NEW BRUNSWICK.—Conclude	1	
	I		
	Brought forward	\$ cts.	\$ cts. 8,297 47
	MARINE HOSPITALS, &C Concluded.		
	Miramichi.		
do John Gallagher de	12 months' salary as Medical Superintendent	33 50 127 75 1,071 60 62 00 24 48	
H. A. Ormond	To pay for 6 iron bedsteads.  Drugs and medicines	27 00 138 41 28 00 62 95 4 05	
Defence	6 iron bedsteads	30 00 7 00	2,059 94
	] 	] 	10,357 41
	Less Refund—On account of expenditure at Port Dalhousie	 	7 00
	` Total		10,350 41
	PROVINCE OF NOVA SCOTIA.		
Provincial City Hospital, Halifax	MARINE HOSPITALS, AND SIOK AND DISABLED SEAMEN.  Board of seamen during fiscal year ending 30th June, 1878, equal to 464 weeks 3½ days, at \$5.00		<b>2,322</b> 37
Dr. H. C. Fixott C. Petitpas Victor Hureau do P. Gerroir B. Deroche Mrs. Bosdet Victor LeBlanc Dr. Laughlin J. LeVash Mary Langlois M. Benoit M. Bondrot	6 weeks and 2 days' board, at \$4.00	12 00 6 00 8 00 25 14 25 71 115 65 30 85 2 00 28 00 6 84 10 08	
l l	Carried forward	897 17	2,322 37

337

#### PROVINCE OF NOVA SCOTIA .- Continued.

	Brought forward	\$ cts.	\$ cts 2,322 37
	MARINE HOSPITALS, &c.—Continued.		2,022 01
	Arichat.—Continued.		
do         B           W. Forest         4           Chas. Boudrot         1		61 14 12 00 8 09 2 86 44 57 16 00	1,041 74
	Annapolis.		-,
Mrs. D. Lynch	Attendance and medicine	10 00 10 00 10 00 10 30	40 30
	Antigonish.	1	
Dr. W. D. Macdoneld A	Attendance and medicine		<b>56</b> 13
	Paidannatan	1	
E. Hurtle	Bridgewater.  Attendance and medicine	66 50 4 00 39 75 24 00 18 79 14 50 32 50 1 00 1 00 1 8 80 14 00	<b>250</b> 34
	Bear River.		
	ttendance and medicine	13 45 3 00	16 <b>45</b>
	Barrington.		
D. Nickenson	ttendance and medicine	97 00 11 00 5 00 3 50 0 75 10 09 12 09 9 50	150 35
	•		-

PROVINCE OF NOVA S	COTIA — Con'inued.
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	PROVINCE OF NOVA SCOTIA.—Con'inued.	-	1	
,	Brought forward	\$ cts.	\$ 3,877	ets.
	MARINE Hospitals, &c.—Continued.		0,011	00
	Bayfield.			
A. Dolanow				
A. Delaney	112 weeks' board, at \$3		4	50
	Canso.			
Dr. Robt. Eustace	Board and nursing, 5 days and 3 nights	24 45		
о. осисту	l weeks board.	5 00	37	45
	Clementsport.			
Dr. R. J. Ellison	Attendance and medicine		11	75
	Cornwallis.			
Dr. S. J. Miller Dr. Masters	Attendance and medicine			
B. Hagerty	Board and nursing, 10 weeks and 3 days, at \$2	20 85		
J. Bowlby	Burial expenses	11 50		
E. Rawling	Provisions	2 00		
W. Eaton	Waggon hire	2 00		
Dr. E. Rand	12 weeks board, at \$1.25	15 00 1		
U. Orr	Board, 3 weeks	9 00		
	Doutty 5 Hours	3 00	115	35
	Cow Bay, C.B.			
Dr. Lewis Johnston	Attendance and medicine	80 00		
S. E. Peters	Board, 15 days, at \$1	15 00	95	00
	Cheverie.		00	••
Dr F N Rungana		29 50		
T. A. Malcom	Attendance and medicine	17 50		
A Sandford	Medicines	1 80		
D. P. J. Masters	2 weeks board	10 00	~0	00
	***		<b>5</b> 8	80
D D	Digby.	-		
Dr. P. W. Smith	Attendance and medicine	26 00		
Dr. R. Stephen	do	9 75		
J. B. Baker	Board, 7 weeks, at \$3	21 00		
H. Handspiker	do 4 do \$2	8 00	81	25
1	French Cross.		01	50
Dr. P. M. Beckwith	Attendance and medicine	10 00		
timily Dodge	Board, attendance and washing, 44 weeks, at \$3 Medicines	132 00		
do	Medicines	6 82	148	82
	Carried forward	-	4,430	70
	339	,	,	

PROVINCE OF	NOVA	SCOTIA	.—Continued.
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Marine Hospitals, &c.—Continue.1.   Glace Bay, C.B.		Brought forward	\$ cts.	\$ cts.
Dr. D. G. McKay				2,222 .0
P. McNeil		Glace Bay, C.B.		
Dr. Sutherland.	Dr. D. G. McKay P. McNeil	Attendance and medicine	88 00 81 43	169 43
P. Webb.   Board, 17 weeks, at \$3.   51 00		Harbour au Bouche.		
J. Moffatt	P. Webb	Board, 17 weeks, at \$3	51 00 27 00	173 05
Burial expenses   16 00   C   Reid   Board   3 months   26 00   C   Reid   Board   3 months   26 00   C   Reid   Board   3 months   26 00   C   Reid   Board   3 months   26 00   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Reid   C   Rei		Jogyins.		110 00
Dr. Chas. Aitkin	Dr. Hewson	Attendance and medicine	16 00 16 00	<b>66 5</b> 2
Dr. S. Jacobs		Lunenburg.	,	
A weeks 2 days' board, at \$8.   34 00	Dr. S. Jacobs D. S. Macdonald Mary Thurlow Annie Tanner Ann Cruickshanks John Loyé A. Schwartz H. Moss Dr. Saunders	do   Conveyance to Halifax.   Board, 3 weeks, at \$3   do 4 do   do 5 do   do 1½ do   do 5 do   do 6 do   do 6 do   Attendance and medicine   Board, 1½ weeks.	6 00 5 00 9 00 12 00 15 00 4 50 15 00 18 00 60 50	<b>294</b> 75
Dr. Barnaby         Attendance and medicine         157 00           W. Himmelman         8 weeks' board, at \$3.75         30 00           Dr. Saunders         Attendance and medicine         37 75           Martha Getson         8 weeks' board, at \$3.75         30 00           Dr. McGregor         Attendance and medicine         22 50           P. Publicover         10 weeks' board, at \$3.75         37 50	do Dr. A. Robertson Dr. H. G. Farish Sarah Head do Adelaide Smith	4 weeks 2 days' board, at \$8.  Medical attendance and medicine.  do do 11 weeks 3 days' board, at \$4.  Clothing	34 00 57 50 77 00 46 86 1 50 33 00	344 36
W. Himmelman       8 weeks' board, at \$3.75       30 00         Dr. Saunders       Attendance and medicine       37 75         Martha Getson       8 weeks' board, at \$3.75       30 00         Dr. McGregor       Attendance and medicine       22 50         P. Publicover       10 weeks' board, at \$3.75       37 50		La Have,		
. 1 214 13	W. Himmelman Dr. Saunders Martha Getson Dr. McGregor	8 weeks' board, at \$3.75	30 00 37 75 30 00 22 50	314 75
		Carried forward		5,793 56

#### PROVINCE OF NOVA SCOTIA .- Continued. S cts. \$ cts. 5,793 56 Brought forward. ..... MARINE HOSPITALS, &c .- Continued. Little Bras D' Or. Dr. H. B. McPherson..... Attendance and medicine ...... 15 50 Lockeport. 22 25 16 50 5 00 43 75 Louisburg. Dr. J. N. Mack ....... Attendance and medicine..... 20 00 Dr. Forman ..... ďο 25 00 do Burial expenses . ..... 16 21 Attendance and nursing..... 14 50 John Killy..... 80 01 Lingan. Dr. M. Dodd.......Attendance and medicine..... 12 00 Mahone Bay. 38 00 30 00 68 00 Mainadieu. 25 93 35 00 30 00 90. 93 Margaree. Attendance and medicine..... 24 50 Dr. McLean ..... 22 00 James Ross ..... 46 50 Maitland. 30 00 54 00 84 00 North Sydney. 119 25 180 25 22 80 2 01 Carried forward..... 324 31 6,234 25

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#### PROVINCE OF NOVA SCOTIA .- Continued.

	Brought forward	\$ ets. 324 31	\$ et 6,234 25
	MARINE HOSPITALS, &C Continued.		
	North Sydney.—Continued.		
do	Passage of 9 seamen to Sydney	2 25 1 00 17 00	344 56
	Pictou.		344 00
do Intercolonial Railway J. J. Davis D. McDonald J. Munroe do Jas. Murroe Isabella Gillis		29 30 10 00 4 20 15 00 7 75 23 57 14 00 36 00 5 00 21 42	166 <b>2</b> -
Dr J. Clark Dr. Dakin J. H. Black	Pugwash.  Attendance and medicine	27 30 41 25 5 00	73 58
do Dr. W. S. Muir Dr. Brown	Princeport.  1 month's board	12 00 16 00 10 00 12 00 12 00	62 00
	Port La Tour.	İ	
Dr. J. J. Schrage Thos. Gregor	Medical attendance	46 00 8 00	54 00
	Port Mulgrave.	ľ	
D. Murray	Attendance and medicine Board for 1 week Board for 6 days, at \$1 per day Conveyance of sick seamen Attendance and nursing Sending waggon for Doctor Burial expenses Board and attendance for 1 week do do 3 weeks	85 00 5 00 6 00 17 00 40 66 10 00 21 00 5 00 12 00	201 <del>6</del> 6

·			···
	Brought forward	\$ cts.	\$ cts. 7,136 26
	MARINE HOSPITALS, &c Continued.		
	Port Medway.		•
,		10.10	
Wra Fency	Attendance and medicine Board for 2 weeks, at \$4 per week	10 10 8 00	
Dr. Farish	. Attendance and medicine	40 00 8 00	
Or. Robertson Thos Brown	Board and pursing for 8 weeks at \$3.50	28 00	
Dr. Burnaby	Attendance and medicine Board and nursing for 11 weeks at \$4 per week	15 00 44 00	
J. Crowley	Board for 5 weeks	14 50	
			167,160
	Port Hawkesbury.	•	
Dr. H. E. Bissett	Attendance and medicine	176 05	
M McDonald	Conveyance of sick seamen	14 00   28 00	
do	Board for 28 days, at \$1 per day	30 00	
Metherine Grant	Board for 33 days, at 75c, per day	24 75	
do	. 8 nights watching	6 00   2 00	
John Morrison	Conveyance to Sydney	9 55	
H A Archibeld.	. 43 days' board at 50c	7 00	
ďΔ	Kedding destroyed	3 00	
Dr. J. McDonald	Attendance and medicine	60 00	381 85
	Port Hood.	1	
Dr. Cameron	Attendance and medicine	67 50	
A Jacones	3 weeks' board at \$2.50	7 50 325 00	
Dr. Chisholm	do do	35 00	
			<b>435 0</b> 0
	Ratchford's River.		
Dr. A. J. Townsend	Attendance and medicine	21 00 18 00	
r. F. Hatheld	6 weeks' board at \$3	18 60	39 00
•			
	Shelburne.		
Dr. S. W. Burns	Attendance and medicine	26 25	
Julia Walls	12 days' board	7 12	1
Thos. Hennesy	'7 weeks' board at \$4	28 00 1 50	
Man. Goodlex	oon of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of		62 87
		}	
	Sherbrooke		
Dr. Campbell	Attendance and medicine		30 00
	Carried forward		8,252 58

	Brought forward	\$ cts.	\$,252
	MARINE HOSPITADS, &c.—Continued.		0,202
	Thames's Core.		
On Aug Pohingon	Attendance and medicine	4 00	
. Johnson	Board, 4 weeks at \$2.25	9 60	
A. Porter Dr. J. A. Coleman	Services going for Doctor	2 00 f 10 00 f	
	_		25
	Tusket.		
	Conveyance of seamen to Yarmouth Hospital	5 00	
do	Health officer, visit to ship	2 00	7
	Tidnish.	i	
n Chandlan	Attendance and medicine		30
r. Onangier	Attenuance and medicine		30
	Windsor.	i	
r B. D. Fraser	Attendance and medicine		1
	•		
	Weymouth.		
r H. D. Ruggles	Attendance and medicine	8 00	
. Wyman do	Board, 3 weeks at \$4	12 00 2 00	
	-		22
	Walton.	-	
r. Burgess	Attendance and medicine	22 25	
. Brown	Board, 8 weeks at \$2.50	20 00	42
	Yarmouth.		
u Franish			
. D. Archibald	Attendance and medicine	210 10 43 00	
. Smitch	Board, 22 days at 50c	11 00	
	Extra night nursing	2 00 14 10	
	Conveyance of seamen to steamer	1 00	
	Board and nursing, 4 weeks	11 75	
	Board, 17 weeks at \$3	51 00	
	Attendance	1 00   4 00	
			348
	Miscellaneous.	1	
J. S. Snow	Conveyance and board.		4
Dr. W. E. Cooke	Medical attendance	400 00	10
	Medicines	58 20	
i	· · · · · · · · · · · · · · · · · · ·		458

#### PROVINCE OF NOVA SCOTIA .- Continued.

40			
	Brought forward	\$ cts.	\$ cts. 9,201 98
			9,201 90
	MARINE Hospitals, &c.—Continued.	1	
	Miscellaneous.—Continued.		
Dr. W. N. Wickwire	Certificates to sick scamen for admission to hospital, at \$2		26 00
R. S. Black	do do do	1	32 00
E. Farrell			44 00
A. J. Cowie			40 00
J. F. Black A. P. Reid			34 00
A. H. Woodill			22 00 34 00
E. Jennings			28 00
Samuel Fleming	30 days' board, at 60 cents	18 00 1	20 00
	Conveyance to Yarmouth	4 00	
			22 00
F. W. Fishwick	do of sick seamen	ļ	18 50
	SYDNEY MARINE HOSPITAL.		9,502 48
	* SIDARI MERIKE HUSITIALI	1	
R. J. Ingraham	Furniture	424 18	
J. McKinnon	Painting	2 90	
Copeland & Co	Medicines. Salary as Superintendant	422 20	
A. D. McGillvray	Salary as Superintendant	400 00	
S. Muggah	do Keeper	250 00	
do	Board of patients	381 71	
9. D. WOOTH	Brandy	12 00	1,892 99
			11,395 47
	DISTRESSED AND SHIPWRECKED SEAMEN.	1	
J. Ritchie	Conveyance	3 65	
D. Sargent	do	8 76	
F. W. Fishwick	, do	41 95 1	
do	do orew of "Leader"do do "Belle"	33 00	
do	do do "Belle"	48 00	
Gilbert Shaw	1 00	1 10 92 1	
J. W. Brown	do crew of "The Star"do do "Mary"do do "Ida"	29 20 1 10 00	
J. W. Brown. Intercolonial Railway	do do "Mary" do do "Ida"	16 00 1	
M. McDonald	do do '' ida.''	9 00	
do	Subsistence	1 60	
do		5 00	
do	Conveyance and subsistence of crew of "G. J.	36 68	
do	Forest"	30 00	
•	Herbert "	148 20	
Sterns Jones	Conveyance	10 80	
wm. Robertson	Subsistence of crew of "Leader"	24 00	
T. S. Bown	do "Ella Voser Whisper"	14 25	
do	do "Sahine"	49 40	
w do	do "Tidal Wave" do "Mary" do "Morning Light"	23 50 52 00	
W. H. Mcalpine H. A. Hood	do "Mary"	58 75	
do			
_ do		61.50	
F. D. Corbett & Co.	l do do	1 20 00 1	
S. Fleming	do "Rebecca Ann"	5 40	
G			
i	Carried forward	805 56 ].	
	345		

PROVINCE	OF	NOVA	SCOTIA	-Continued.

		Brought for	ward		cts. 56	\$ cts
	DISTRESSED A	ND SHIPWRECE	KED SEAMEN Continued.			
do	Subsistence s	nd conveyance	e	11	40	
do					80	
do	do d	f crew of "S	. Hubert '	-	40	
			ce of 4 men of "Mary"		15	
C. W. Clements	Subgistance	auu bubsisten	be of 4 men of mary		11	ĺ
do	Convergnes	and subsistant	ee of crew of "Moera"		47	
do	do	do	l man of "Anna"		87	1
do	go go	<b>d</b> o	crew of "Belle"	_	47	!
					60	
W. Angrove			UC			) 
Jeffery		do	crew of "Antelope"		50	İ
O. Murray, jun		go	" Active"		84	1
C. Leonard		ďο	" W m. B "		20	!
A. P. McElhenny		do	"Nazarene"		14	Í
do	l do	do	"Pathfinder".		38	
Thompson	do	do	"Hawk"		00	
O. McDonald	do	$\mathbf{do}$	"Sarah"	56	57	!
do	do	do	"Sabrina"	51	50	·
do	do	do	"Maggie A."	12	25	
do	do	do	"St, Hubert"	3	00	
do	do	do	1 man of "Moselle"	1	50	
, Kavanagh	do	do	crew of "Tidal Wave"	382	10	
I. McPhie		do	"Idlewild"	182		
ames Hemlow		do	"Rebecca Ann"	134		ĺ
B. Cohoon		do	"Centennial"	250		ĺ
l. Ross	do	do	"Endeavour"		40	
W. A. Kenney		do	"Blanche"		36	
B. Victs	do	do	"Blanche"	402		
3. O. Crowell			"Peter Roberts"			1
	do	do			56	1
do	do	do	2 men of "St. Michel".	_	38	1
do	do	do	1 man of "Fortuna"		84	ı
do	do	do	crew of "Maud Potter"		62	
S. D. McKean	do	do	2 men of "Vesta"		90	ì
C. Archibald		do	do		90	
H. W. Johnston			crew of "John Nelson"		80	l
D. J. Stewart	do do	do	do	2	50	
P. Grant & Co	Clothing cre	w of "Chebuc	to"	206	<b>5</b> 0	į.
do	do	"St. Hul	bert ''	11	25	1

#### PRINCE EDWARD ISLAND.

	1		
	MARINE HOSPITALS.		
	Charlottetown.		
F. P. Taylor, M.D	12 months' as salary as Medical Attendant, to 31st		i
Margaret Darrach	December, 1877	300 00 180 00	
<b>d</b> o	Board of patients, at \$2.50 per week	327 84	
Apothecaries' Hall	Medicines	73 49	1
Hugh Perkins	12 months' rent of Hospital	120 00 55 60	
	Carried forward	1.074 66	
	346	-,	

#### PROVINCE OF PRINCE EDWARD ISLAND .- Continued.

		\$ cts.	\$ cts.
	Brought forward	1,074 66	******
	MARINE HOSPITALS.—Continued.		
	Charlottetown.—Continued.	!	
E. D. Stair	4 mattresses	10 00	
George Daly & Co	Rugs and blankets	26 25	
	Repairing boiler, hardware, &c	11 85	
Mrs. Shehan	Funeral expenses of deceased seamen	2 00	
Michael Henessey,	do do	10 00	
Thomas Mahar		10 00	
	Passage of sick seamen	3 20 1	
	Removing night-soil	5 40	
	Oil, wicks, groceries, &c	73 75	
Dearer & Sons	On, wicks, groceries, &c	13 13	1,227 11
			1,22. 11
	OUTPORTS, P.E.I.	!	
	COTPORTS, F.F.1.		
I D Domony	Boonding sight government Dringston	15 00	
H W Debesteen W.D.	Boarding sick seamen at Princeton	13 00	
n. w. Robertson, M.D	Professional services and medicines to sick seamen	65 75	
T 1	at Crapaud	55 75	
James Moynagn	Boarding sick seamen at Souris	82 50 1	
C. J. Seveeve	Professional attendance and medicine at Summer-	45 05	
T TT	side	45 25	
ira Hurst	Board and attendance on sick seamen at Summer-	20.40	
	side	26 00	
do	Brandy and limewater	16 55	
P. M. N. Bearsto	Professional attendance on sick seamen at Summer-		
	side	13 00	
E. B. Mulart, M.D	Professional attendance on sick scamen at Souris	26 00	
Dodd & Rogers	Supplies at Souris	49 04	
George Davies & Co	Blankets, quilts and rug at Souris	49 50	
McDonald & Walker	Cutlery, earthenware, &c	44 97	
David Kay, M.D	Protessional services on sick seamen at Georgetown	17 00 1	
D. C. Grant	Board of sick seamen at Georgetown	26 72	
	Professional services on sick seamen at Montague	14 00	
James Cameron	Board and attendance of sick seamen at Crapaud	13 00	
Charles Owen	Board and attendance of sick seamen at Charlotte-	!	
	town	63 <b>8</b> 8	
James Mexnegh	Board and attendance of sick seamen ex "Ellen		
	Frances	84 00 j	
Dr. Kaye	Medical attendance on sick seamen at Georgetown	50 00	
Dr. W. Keir	Medical attendance on sick seamen at Malpeque	13 35 '	#05 F3
			705_51
	1		

#### PROVINCE OF BRITISH COLUMBIA.

J. C. Davie, M.D	12 months' salary as Medical Officer	300	00	
Thomas Wood	do Keeper	499	92	
do	Maintenance of patients 225% weeks at \$5.00 a week	1,139		
do	Washing, ferriages, &c	101	75	
do	Painting window frame, &c	20	00	
W. W. Walkem, M.D	Professional attendance and medicine at Burrard	į		į
· · · · · · · · · · · · · · · · · · ·	Inlet	720	75	1
L. R. McInnes	Professional attendance and medicine at Nanaimo.	380		1
Royal Columbia Hospital	Board and treatment	204	00	
	Whiskey		<b>0</b> 0	!
	Uarried forward	3,374	20	********

#### PROVINCE OF BRITISH COLUMBIA .- Continued.

Brought forward		cts. 20	<b>\$</b>	cts.
E. Lawrence	29 17 46 22 30 23 107 75 5 11 2	00 30 00 00 25 50 12	3,837 10 3,827	το

#### SUMMARY.

Ontario	St. Catharines Hospital.	50 <b>0</b>			
	Kingston do	500	i	1,000	00
-Quebee	Marine and Immigrant Hospital, Quebec			19,987	50
do	Montreal General Hospital	2,015	10		
	Sick and Disabled Seamen				
do	Shipwrecked and Distressed Seamen	579	00	0.101	10
New Brunswick	Marine Hospitals and Sick Seamen.	10,350		3,121	40
do	Shipwrecked and Distressed do	388	03	10,738	4.4
Nova Scotia	Marine Hospitals and Sick Seamen	11,395		10,738	44
40	Shipwrecked and Distressed do	2,979	60	14,375	32
Prince Edward Island	Marine Hospital, Charlottetown	1,227 705		14,510	.02
	·		<u></u>	1,932	62
British Columbia	Marine Hospital and Sick Seaman			3,827	28
	To reimburse Imperial Government for expenditure in behalf of Canadian Wrecked Seamen			2,491	98
	Total Expenditure of Marine Hospitals, Sick and Disabled and Shipwrecked and Dis- tressed Seamen, for the fiscal year ended 30th June, 1878		-	57,474	60
	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			,	

WM. SMITH,
Deputy Minister of Marine and Fisheries.

### APPENDIX No. 31.

STATEMENT of Sick Mariners' Dues collected, for the Fiscal Year ended 30th June, 1878.

Quebec.	\$	cts.	Nova Scotia.	\$	cts
Gaspé	137	60	Amherst	411	40
Magdalen Islands		38	Annapolis		80
Montreal	2,480		Antigonish	-	<b>-7</b> 0
New Carlisle		64	Arichat	231	
Percé		60	Baddeck		58
Quebec	14,604		Barrington		56
Rimouski		52	Bridgetown	-	()8
St. Armand		3 72	Cornwallis		62
St. Johns	1,110		Digby	111	
Sorel		88	Guyscoro'		76
Stanstead		64	Halifax	4,122	
Three Rivers	60	3 88	Liverpool	283	-
			Lockeport		3 48
Total	18,901	l 84	Londonderry		55
1			Lunenburg	302	
			Margaretsville		76
New Brunswick.			North Sydney	1,023	
			Parrsboro'		26
Bathurst		l 70	Pictou	815	
Bay Verte		2 18	Port Hawkesbury		3 02
Campo Belloi		00	Port Hood		3 48
Caraquet		44	Port Medway		1/20
Chatham	2,870		Shelburne	594	
Oalhousie		7 32	Sydney	1,363	
Oorchester		88	Weymouth		3 22
Hillsboro'		42	Windsor	593	
Newcastle		12	Yarmouth	302	24
Richibucto		3 68			
Sackville		34	Total	10,923	47
Shediac		56	·		
Shippegan	_	96	70 111 1 1 1 1 1		
St. Andrews		18	British Columbia.		
St. George		64			
t. John	5,025		Victoria	2,612	25
St. Stephens		57			
West Isles	.10	44	70 77 777 7		
			Prince Edward Island.		
Total ,	11,407	35	Ob a alektokerm	808	14
1			Charlottetown		00
1		!	Summerside	12	UU
ì		ì	Total	820	-30

RECAPITULATION.	\$	cts.
Quebec	18,901	84
New Brunswick	11,407	35
Neva Scotia	10,923	47
British Columbia	2,612	25
Prince Edward Island	820	16
Total 349	44,665	07

### APPENDIX No. 32.

STATEMENT of Expenditure on account of Cape Race Lighthouse and Fog Whistle, Newfoundland.

Imperial Board of Trade, London	Dues on tonnage for the year ended 30th June, 1878, as follows:  133,456 tons at 12 penny sterling 158,445 do 6 do	\$ cts.
	1	

Wm. SMITH,
Deputy Minister of Marine and Fisheries.

### APPENDIX No. 33.

STATEMENT of Expenditure for the Removal of Obstructions in Navigable Rivers, for the Fiscal Year ended 30th June, 1878.

		\$	cts.
G. B. Burland	Advertising in L'Opinion Publique removal of wrecked Barque "Emigrant"	11	2 00

WM. SMITH,
Deputy Minister of Marine and Fisheries

### APPENDIX No. 34.

STATEMENT of Expenditure in connection with "Cost of Enquiry respecting disposal of Sawdust and Mill Rubbish in Navigable Waters," for the Fiscal Year ended 30th June, 1878.

	\$	cts.
John Mather On account of cost of enquiry.	450	00

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

# APPENDIX No. 35.

STATEMENT of Expenditure on account of the Winter Communication between Prince Edward Island and the Mainland, for the Fiscal Year ended 30th June, 1878.

				(	 
	Steamer "Northern Light."	\$	cts,		\$ cts
Capt. Finlayson	13 months' salary as Captain, from 13th May, 1877, to 13th June, 1878	975	00	Ì	
William Mitchell	Wages of officers and crew from 13th May, 1877, to				
Cont Einlamen	13th June, 1878	4,813		i	
	Repairs to the vessel	1,307		1	
H Mayiban	Plate and square iron	394	71	1	
Cont D A Soott	Iron plates, labour, bolts, steel chisels and tubes			1	
A. McDonald			79	İ	
D 1114 1	neer		00	1	
	Pilotage		00	ł	
J. & J. Yorston	Board of Engineer at Pictou, 184 weeks, at \$4 Wages of workmen, \$157.75; materials and slip	74	32	İ	
	dues, \$6,500	6,657	75	1	
Capt Finlayson	Boarding in Pictou 184 weeks at \$5	91	43		
Acadia Coal Co	$98\frac{3}{4}$ tons, \$221.54; $562\frac{1}{2}$ tons, \$1,268.76; 225 tons,		_	1	
	\$507.50	1,997		1	
W. H. Davis	Repairs to machinery	323	45	}	
Wm. Mitchell	Travelling expenses, boarding crew, washing and bedding	127	54		
G. Davis & Co	Olive oil		00	1	
	Washing and bedding		00	i	
E. D. Stair	Fitting up cabin	132		1	
Beer & Sons	Plush, rubber, cloth and wall paper	32	45	1	
J. & W. Beer.	Carpeting, oil cloth, wall paper and matting	143		1	
Joseph Wightman	Carpeting, oil cloth, wall paper and matting Freight of coal and stowing	186	25	ļ	
R Slogget.	Survey, fee and expenses at Georgetown	80	00	1	
John Scott	3 wheelbarrows and lettering	18	00	1	
J. B. Alchorn	Glass and crockeryware	47	34	i	
T. McAvity & Sons	3 improved steam guages, \$60; steam pump, \$426.25	486	25	•	
McDonald & Westaway	Truckage, shovelling, labour, groceries and pro-			l	
	visions	580	46	l	
Joseph Newson	4 straw mattrasses	9	00		
George Davies	Bedding	76	21	i	
Dodd & Rodgers	Iron plates, rubber, olive oil and cylinder	668	77	i	
Nova Scotia Forge Co	Materials and blacksmith's work whilst on slip	2,534	56	ļ	
Anglo-American Tele-				ļ .	
grann Co	Telegrams	24		l	
S. McDonald	Freight of coals from Pictou to Georgetown	101		)	
James Turner	Board of Engineer in Charlottetown, II week at 24	44		ł	
A A. Baldwin	Hardware	20		l	
James Burrows	Beef, vegetables and pork	320	5 <b>5</b>		
Macdonald & Co	Copper cylinder brazed and riveted; smith's labor			1	
Noonan & Davies	and travelling expenses	555	15	<u> </u> 	
	and freight	402	20	l	
W. B. Allin	Copper and blacksmith's repairs	49		ł	
John Gillis	Freight of coal, Picton to Georgetown	285	00	l	
Angus McPhail	Rope, blocks and smith's work	5	96	1	
Edward Morrisev	Iron and brass works	18		ł	
James Sullivan	Patent anchor	57	15		
	: (·				 
	Carried forward 353	23,807	57	******	 ••••
• ••	อูบอ				

STATEMENT of Expenditure on account of the Winter Communication between Prince Edward Island and the Mainland, etc.—Continued.

	Brought forward	\$ cts. 23,807 57	\$ cts.
	STEAMER "Northern Light."—Continued.		
Albert Fillmore J. D. McLeod Stairs Son & Morrow Prince Edward Island Railway Co Peake Bros. & Co F. G. Gabel W. McDonald J. Wightman Herhert Meagher	Cotton duck, boat cover, covering stern pipes Beef, provisions, milk and washing Groceries and provisions at Charlottetown One coil of rope Freight of pump, rope, etc Side and cabin lights, oakum, rope, etc Cork jackets Repairs to steam pump and joiner's work Hauling coal	652 06 710 90 49 29 8 82 53 35 19 80 28 66 16 08 315 00	
	App-Unadjusted account of Government		25,704 00
	Workshops-* Viae Note		3,229 63
	Total	, (a	28,933 63

<sup>\*</sup>Note—In addition to the above expenditure of \$25,704.00, accounts for material and repairs were incurred at the Government workshops at Charlottetown and Pictou, amounting to the sum of \$3,229.62, against which the Intercolonial Railway collected for passages and freight by the "Northern Light," \$2,832.85, which sum has been placed at credit the vessel's earnings.

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

### APPENDIX No. 36.

STATEMENT of Amount of Collections and Expenditure on account of Harbour Improvements, collected at the undermentioned Ports at which Tonnage Dues have been imposed by Proclamation, for the Fiscal Year ended 30th June, 1878.

				===
Quebec.	\$	cts.	\$	cts,
Gaspó	5	90		
Magdalen Islands	185	30		
			191	30
New Brunswick.		- 1		
Richibucto	1,331	20		
Bathurst	443	52		
			1,774	72
Nova Scotia.		ļ		
Sydney			3,931	45
Grand Total			5,897	37

### APPENDIX No. 37.

REPORT 'ON THE MARINE HOSPITAL, ST. ANDREWS, NEW BRUNS-WICK, FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

9th September, 1878.

SIR,—I have the honour of forwarding herewith the Annual Report and Account of this Hospital for the information of the Department of Marine and Fisheries.

Owing to the continual depres ion of the coasting trade with the United States and the consequent laying up of many vessels engaged therein, the employment of the usual tonnage has decreased, and therefore the admissions to the Hospital have as a result been less.

Seventy-six weeks and two days board and nursing seamen were paid the matron and keeper.

The decrease in the expenditure as compared with the previous year is seventy-eght dollars and twenty-seven cents.

#### Dr.

mx penarune	for quarter	ended September 30, 1877	<b>\$</b> 181	86
- 46	- "	December 31, 1877	174	41
"	• •	March 31, 1878	152	11
"	"	June 30, 1878	132	15
			\$640	53
		Cr.		
By receipts f	or above per pective sums	Cr. riods in quarterly payments for per J. H. Harding, Esq., Agent		

I have the honour to be, Sir,

Your obedient servant,

S. T. GOVE,

Medical Superintendent Marine Hospital.

WILLIAM SMITH, Esq.,
Deputy Minister of Marine and Fisheries.

### APPENDIX No. 38.

STATEMENT of Expenditure on account of Re-measurement of Steamers in Inland Waters, for the Fiscal Year ended 30th June, 1878.

To whom paid.	Service.	Amou	ut.	Tota	ı.
W. B. Weir	Surveying, &c. do	774 140 25 65 4 23 31	50 00 00 00 00 75 60 00	\$1,087	ots 1

Wm. SMITH, Deputy Minister of Marine and Fisheries

JOHN TILTON,
Accountant.

### APPENDIX No. 39.

Schedule of Fishery Officers in the Provinces of Ontario, Quebec, Nova Scotia, New Brunswick, Prince Edward Island, British Columbia, and Manitoba, appointed under the Fisheries Act (1868), with Districts, Post Office Address, Salary, &c., &c., distinguishing those who, being Fishery Overseers, are instructed to act ex officio as Magistrates, from those who act in the capacity of Fishery Wardens, and do not exercise magisterial powers.

Name.	District.	Address.	Overseer or Warden.	Salary.
Samuel Wilmot	***************************************		Super- intendent fish-breed- ing estab- lishments in the Do- minion.	\$ cta_

#### PROVINCE OF ONTARIO.

Heary Hunt	Larue's Island	Rocknort	Warden	20	00
John Wallace	Lindee Island	Lanadowne	do	50	90
	Lake St. Francis, from Cornwall to		u	•	
J. D. MUMILIAN	Côteau du Lae, en the north side,				
	and from St. Régis to Valleyfield,		Ī I		
	on the south side, including Lake		- 1		
	St. Francis and Salmon and La-			=0	00
	Guerre Rivers	Dangee, P.Q	Overseer		
	Brockville to Cornwall		do	200	w
Peter Kiel	Wolfe and Amherst Islands, and		}		
1	waters around down to Brockville,		1		
1	and inland waters, County of Fron-			1	
ì	tenac	Wolfe Island	do	260	
David Conger	tenac	Wellington	do	100	
Peter Huff, jun	West Point to Point Peter	Picton	do	50	00
Eli Ketchum	Point Peter to Petticoat Point	Cherry Valley	do	50	00
	Point Traverse to Black River Bluff,		-		
	Prince Edward Bay, including Tim-		1		
	ber Island	South Bay	do	75	00
Wasley Bioks	Petticoat Point to Point Traverse		40	•••	
Wesley Hicks	and all islands within such limits				
1				75	00
W. Di	excepting Timber Island		do	100	
	Black River to Bongard's Wharf		do	100	•
Unaries Gilchrist	Rice Lake and part of Lake Ontario,		1		
	fronting on the County of North-		! _ 1		^^
	umberland	Port Hope	do	400	
Jos. L. Thompson.	Cole's Ferry to Prescott	Brockville	Warden	50	•
			1		

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#### PROVINCE OF ONTARIO.—Continued.

Name.	District.	Address.	Overseer or Warden.	Salary.
	Brought forward			\$ cts 1,420 00
Hugh Thompson	Westerly limit, County South Leeds to Cole's Ferry, and Islands oppo- site in St. Lawrence River, including	1		
David Hamilton	Howe Island Charleston Lake, Gananoque Lake	Gananoque	. Overseer	50 00
A. J. Harrington .	Lake Scugog, including Lindsay or	Charleston Lake, P.O.	1_	50 00
John McAllister	Scugog River to its mouthdo do	Port Perry	. Overseer . Warden	50 0C 50 06
ū	Lake shore and island waters, Coun- ties of Lennox and Addington	Petworth	Overseer	200 00
	on County of Hastings, and from Carrying Place eastward to Mill Point in the Co. of Prince Edward	D. 11.		200.00
John W. Kerr James G. Wilcox	River Credit, from mouth of river up	namiton	αο	200 <b>00</b> 500 <b>00</b>
	That part of the Counties of Norfolk and Haldimand fronting on Lake	Port Credit	do	50 00
	Eric and extending from the divi- sion line between the Counties of Elgin and Norfolk to the division line between the Townships of			
Alex. McBride	That part of Lake Erie fronting on		;	250 00
John McMichael Andrew Hughson	the County of Elgin	Port Burwell Rond Eau	do	50 00 50 00
	Norval, together with the Town- ships of Mono, East Garapaxa, Albion, Amaranth, Luther and Caledon to Church's Mills Cataract (	Orangeville	do	50 0 <b>0</b>
Peter McCann	From London to Thamesville on the	London	do	200 00
_ }	Baptiste Creek on Lake St. Clair, to Point Pélée	Sandwich	_ do	200 00
	Point Pélée Island I Baby's Point, on River St. Clair, to	-	Warden	50 60
A. C. McKinnon	Kettle Point to Point Clarke, Lake	Sarnia	Overseer	200 <b>00</b> 100 <b>00</b>
James Muir	Huron	Fort Elgin	do	100 00
Geo. S. Miller	Owen Sound to Cape Hurd	)wen Sound	do	100 00
James Patton	Collingwood to Point Rich	Collingwood	do	250 00
Farquhar McRae	Sydenham River and Lake St. Clair.	fidland	·	100 00
Geo. B. Abrey	from Baptiste Creek to Baby's Point V Manitoulin Islands and adjacent	j	do	150 00
1	islands in Lake Huron L	1	do	100 00
Jos. Wilson	Georgian Bay Phessalon River to head of Lake	1	Warden.,	50 <b>00</b>
James Dickson	Superior S. Lake Superior, extending from Slate Island to mouth of Pigeon River P	1	do	100 00
	Carried forward	1	j-	4,770 00

#### PROVINCE OF ONTARIO .- Continued.

Name.	District.	Address.	Overseer or Warden.	Salary.
	Brought forward			\$ cts 4,770 00
Alex. McKenzie Wm. Hastings	Lake Simcoe and tributaries bake Simcoe from Cook's Bay to	Barrie	Overseer	50 00
_	Beaverton		do	50 00
Daniel Bowen	Upper Division or East Riding, Co. Peterboro', comprising waters of Gull and Burnt Rivers and tribu- taries, together with Drag, Eagle,	Lakefield	do	250 00
James McFadden	Moose, Redstone, Crooked and other lakes within such limits Mississippi River and Lake Madawaska River and Lake des Chats	Haliburton Carleton Place	do do	100 00 30 00 50 00
Andrew Telfer	Bonnerhère River and Lakes, Co. Renfrew	Sand Point	do	50 00
John McGregor	north of Sturgeon Lake and above Fenelon Falls Rideau Lakes Grand River from mouth of Caledonia and that part of Lake Eric extend-	Woodville Westport	do Warden	100 00 75 00
Robert Watt	ing from South Cayaga to Moulton Bay		Overseer	100 00
	Brantford upwards		do	100 00
Wellington Hull	of Bays and the Maganetawan River The Rivers Credit and Speed, with their tributaries, in the townships of Eramosa, Erin, Caledon and	Ü		125 00
John Morrow	Esquessing. Upper waters of the River Madawaska and tributaries in the County of			50 00
M. L. Russell	Upper waters of the River Bonne- chere, and tributaries in the County			25_00
W. D. Pollock	Twelve and Sixteen Mile Creeks in	Renfrew	do	25 00
John A. Cameron	the County of Halton			30 00
Hugh McFayden	of Addington		_	50]00
Timothy McQueen.	tributaries		do	40 00
Angus Brady	That part of the River Thames ex- tending from Lewisville to Cash-		do	<b>5</b> 0 00°
Thomas Cartier	mere	Tilbury West	do Guardian	40 00 20 00
	Total			6,180 00

#### PROVINCE OF QUEBEC.

Name.	District.	Address.	Overseer or Warden.	Salary.
Napoleon Lavoie	Lower St. Lawrence River and Gulf.	i mer). L'islet (in	1	\$ cts.
		winter)	Officer in charge of Gov. st'mer for protection of Fisheries	1,400 00
Clovis Caron Jules Gauvreau	Point Lévis to River Ouelle	, <del>]</del>	Overseer	200 00
H. Martin	Point à la Loupe, Green Island, to Rimouski River (same included)	oj	do	100 00
L. E. Grondin Vital Charest	Rimouski to River Blanche	do	do	100 00 100 00
George Gagnon Cvrille Dubé	River Blanche to Cape Chatte Inland waters, County Témiscouata Lake Témiscouata and neighboring	St. Epiphane	Warden	<b>30</b> 00
	waters, County Témiscouata  Lake Matapedia and River Matapedia	Notre Dame du Lac		30 00
	to Causapscal	Causapscal	1	100 00
P. Vibert, jun	York, Dartmouth and St. John Rivers.	Ste. Anne des Monts		100 00
* * * * * * * * * * * * * * * * * * * *	Gaspé Basin to Point Maquereau Point Maquereau to Paspebiac Point	Gaspé Basin	do	200 00
John Phelan	Point Maquereau to Paspebiac Point Paspebiac Point to Maguasha Point	Port Daniel	do	50 00 200 00
John Mowat	That part of the County of Bonaven- ture extending from Maguasha Point upwards, and including the Rivers Matapedia and Restigouche and		do	300 OO-
Daniel Rosa	Lakes Beauport, St. Charles and adjacent Lakes	Dee Side, Matapedia		50 00
	Lakes Philippe, Gagné and adjacent Lakes, and the inland of Orleans River du Gouffre to Canard River,	St. Roch, Quebec	1	100 00
	including inland Lakes adjacent to Murray Bay and St. Paul's Bay	Murray Bay	do	<b>5</b> 0 00
Etienne Tremblay.	)	Bay St. Paul	Warden	30 00
Jos. Simard	Dance in leas of Bullay Day and	₹ St. Agnes	ao	40 00
Antoine Filion	Bay St. Paul	(Bay St. Paul	do	30 00 -
_	Waters in Counties of Chicoutimi	Chicoutimi	Overseer	150 00°
	Lake St. John and tributaries, Upper Saguenay	Metabechouan	Warden	50 00 50 00
G. L. Duguay	Escoumains to Bersimis	Mille Vaches	do	
J. O. Belanger	Mistassini and Godbout Rivers North Shore River St. Lawrence, from Point des Monts to Baie des Rochers, including Trinity and Pentecost	Godbout	do	150 <b>00</b> -
G. Mathurin	Rivers		.	150 00
D. B. McGie	RiverEsquimaux Point to Sheldrake River	Natashquan Port Daniel	do	150 00 · 100 00 ·
	Carried forward	] 	}·	4,110 00.

#### PROVINCE OF QUEBEC .- Continued.

Name.	District,	Address.	Overseer or Warden.	Salaı	r <b>y.</b>
	Brought forward	ı		\$ 4,110	cts. 00
	Watsheeshoo District, from Ateepetal Bay West to Little Watsheeshoo River East	Natashquan	Warden	150	00
J. B. Couillard	Western Division Natashquan, includ- ing River Agwanus, Nabissippi and Natashquan			150	00
	St. Augustine Division, from Cape Whittle to Checatica	Pacachoo	! )	100	
	Bonne Espérance Division, from Che-	Bonne Espérance	do	100	00
J. J. Fox	Magdalen Islands Waters in District of St. Francis Richelieu River and tributaries from	Sherbrooke	do	50 <b>15</b> 0	00 00
	Sorel to St. John	Chambly	do	200	
	of Stanstead and Brome	Georgeville	!!	100	
Pierre Latraverse	Champlain That part of the River St. Lawrence bordering on the Counties of Riche-	<b>;</b>	do	100	00
:	lieu, Yamaska and Berthier, in the Province of Quebec, including Sorel and adjoining Islands	Sorel	Warden	100	00
	Mississquoi Bay in Lake Champlain	Phillipsburg	Overseer		00
Wm. Clyde Andrew Watt	Chateauguay River and tributaries River Chateauguay, from mouth to	Huntingdon	do		00
	The inland waters in rear of the County of Argenteuil	Chateanonay Basin	do	50	00
	The inland waters of the County of	rington	do	30	00
_	Terrebonne	St. Sauveur	do	100	00
Duncan Dewar	Isle and Township of Morin, in the County of Terrebonne	Lakefield			00
J. B. Gerin Lajoie.	Argenteuil	St. Andrews			00
Olivier Laflêche	ties of St. Maurice and Champlain That part of the River St. Lawrence fronting Counties of Berthier and	i	do	40	00
Wm. McLeod	Maskinonge Washeecoutai Division, comprising the Rivers Kegaskea, Musquarro, Wash- eecoutai, and Romaine or Olomo-	River du Loup(en haut)	do		00
Evariste Chaurette	Lake of Two Mountains, together with that part of River des Prairies	Port Daniel	do	100	
	fronting on the County of Jacques Cartier	Ste. Geneviéve	do	50	00
	Total	***************************************		5,880	00
	362				

#### PROVINCE OF NOVA SCOTIA.

Name.	District.	Address.	Overseer or Warden.	Salary.
W. H. Wylde	Nova Scotia	Port Mulgrave	of Fisher-	\$ cts
W. H. Rogers	do	Amherst	ies Fishery Officer	1,400 <b>00</b>
	Annapolis County.			
W. T. Carty Miner Clark	Laurencetown Bridge to Clarke's	Annapolis	i	120 00 25 00
James B. Dobson	Laurencetown Bridge to County	Bridgetown	!	
J. H. Pineo Thomas Devers A. F. Morton	Line, including Nictaux River	Round Hill	do do do	25 00 25 00 25 00 25 00 25 00 25 00
A. W. McConald	Antigonish County.  Antigonish County		Overseer	125 0 <del>0</del>
J. R. Aymer	Brook, including French Settle- ment Brook and Tarbitts From mouth of Harbor to Forks, from thence on the Pomquet River to V. Chisholm's Mills, and from Forks	Tracadie	Warden	25 00
	on the Black River to Falls	Pomquet Forks, Anti- gonish	do do	25 00 15 00
Lochlin Cameron.	From McWilliam's Bridge to Frazer's	Antigonish	do	25 00
	Bridge, including Big Brook	Antigonish	do	30 00
-	From Fraser's Bridge to County line at head of lake	Upper South River, Antigonish	do	20 00
	marsh), to Trotter's Mill Brook, thence up said Brook to Trotter's Mill, including both branches of West River and Bailey's Brook	Antigonish	do	30 00
Donald Chisholm	From Trotter's Mill Brook to W. Thompson's dam	Salt Springs, Antigo-	do	25 00
	Frem Thompson's Dam to Addington Forks' Bridge	West River, Addington Forks, Antigonish	do	25 00
Hugh Cameron	From Forks' Bridge to Pinkeytown Bridge, including Jones River and	Addington, W.O	do	25 00
Duncan Fraser	From Pinkeytown Bridge to Stewar: 8		do	20 90
	Carried forward 365	***************************************		2 885 00

Name.	District.	Address.	Overseer or Warden.	Salary.
	Brought forward			\$ cts. 2,885 00
	Antigonish County Continued.			
James Chisholm	From Campbell's Rock, on Pomquet River to V. Chisholm's Mill on the Eastern Branch, and to Alexander McDonald's Mill on the Western			
James McDougald.	From John McDonald (Bun's) Cove,		Warden'	25 00
	north side of Cape George, to Crebbing Head, St. George's Bay			25 00
	Cape Breton County.	l congo min		
	From Lew Point to South Head of Cow Bay, and north side of Mira Bay, including Salmon River and			
Anthony Spencer Wm. Burke	Sydney River	Sydney	Overseer Warden	120 00° 25 00°
	Salmon River	River	do	25 00 25 00
Thos. Moore	Balls and Leitche's Creeks	North Sydney	do	20 00
Donald McDonald	Sydney River and Forks	Lingan		20 00
<b>XOLK</b> Barrington	Sydney River and Forks	i		20 00
	River, including part of Boularderie IslandSouth of East Bay to Salmon River	Sydney Mines	Overseer	120 00
Alex. McDonald	South of East Bay to Salmon River	East Bay	Warden!	120 00
Angus Morrison	Eskasoni Marion Bridge, Mira	Eskasoni	do	25 00 25 00
Denis Murnhy	Ponds Sydney Mines	Ponda Sydney Mines	l do l	25 00°
D. McDonald	Salmon Holes, Sydney Forks	Sydney	do	25 00
M. McLeilan P. Keefe	Salmon Holes, Sydney Forks Rory Brack's Brook. North-West Brook, Grand Lake and	Rory Brack's Brook	do	25 00 25 00
Donald M'Cormack John McNeil	tributaries Leitche's Creek and George's River Benecadie River emptying into Bras	Leitche's Creek, W.O	do	25 0 <del>0</del>
	d'Or Lake	Benacadie, W.O	do	25 00
	Colchester County.			
	Salmon River			25 00
Samuel Frame	Shubenacadie River	Shubenacadie River	do	25 00
George Fulton	Stewiacke River (lower portion)	Stewiacke River, Brook-	Overseer	75 00
J. Bonyman	Northern Division, Co. Colchester, comprising Tatamagouche Bay,	field	)	25 00
T W Daminan	French and Wangh's Rivers	New Annan	Overseer	40 00
J. W. DAVISON	Colchester County, West Division Waugh's River De Bert River	Upper Economy	Worden	100 00 50 00
W. McElhenev	De Rert River	Londonderry	do	25 00
Henry Urquhart	Folly River	do	do	25 00
T. Davidson, 2nd	Folly River Portapique River	Portapique, W.O	do	25 00
George Moore	Economy River Salmon River Lower Stewiacke River	Economy	do	25 00
mat. G. Murrey	Salmon River	Trnro	do	25 00 25 00
Alfred Wright	Lower Stewiacke River do do	Lower Stewiack.e	do	25 00 25 00
"WITTEGT ALTIEN Process	uo uo	uv	αο	
	Carried forward		¹	4,145 00

Name.	District.	Address.	Overseer or Waiden.	Salary.
	Brought forward  Cumberland County.	 		\$ cts. 4,145 00
Oliver Fillmore John W. Moore Jer. Brownell Asa Fillmore James King  David Corbett Moses Harrison C. Pugsley Francis L. Jenks Henry Fountain	do downwards Shinimicas River	Oxford River Philip  do Shinimicas, Goose River River Philip  Amberst  do Maccan, W O River Hebert. Parrsboro' Wallace	do do do do Verseer	100 00 25 00 25 00 25 00 25 00 25 00 25 00 25 00 25 00 25 00
kiljan Fowler	Diligent, Ramshead and Fox Rivers, including fisheries from Partridge Island to Spencer Island		do	30 00
Abraham L. Gavil J. M. Devault Lochlin VcKay Robert Journey J. P. Thibodeau Holland E Payson	Digby County Joggins River Salmon River St. Mary's Bay Sissaboo River Metaghan River and Comeau's Brook Brier and Long Island West Division Digby County, below Sissiboo River	Digby Salmon River, W.O St. Mary's Bay, W.O Weymouth Metaghan River Brier Island	do do do do	120 00 25 00 25 00 25 00 25 00 25 00 50 00
James A. Tory James Cook	Guysborough County.  Guysborough County Salmon River from mouth to Graham's West Line		1	150 00 25 00
	From Graham's West Line to Foot of Neil's Lake, including North Branch	Salmon River, W.O		20 00
Donald Gunn	lakes through which it passes  From mouth of Scott's Place to Country Harbor Lake, including Gunn's Brook, from Main River to	Salmon River, West Branch, Guysboro'		15 00
	From mouth of St. Mary's River to Sinclair's Point, including stream from Wine Harbor to Lake From Forks to County Line, includ-	Cross Roads Sherbrooke, St. Mary's	do	30 0 <b>9</b> 30 0 <b>9</b>
	ing McQueen's Mill and Brook to Lake  Carried forward	Melrose	do	30 00 5,275 00

Name.	District.	Address.	Overseer or Warden.	Salary.
	Brought forward			\$ ct 5,275 00
	Guysborough County.—Continued.	1		0,210
10.1		i	1777	00.00
	From Forks to Indian Man's Brook From head of tide to head of Intervale on the North Branch, and to Cameron's Mill on the Valley			30 00
	Branch	Guysborough, Inter-	do	15 00
James R. Bruce	From mouth of Clam Harbor River to Upper Falls	Guysborough		10 00
James Nickerson	From Beach to Falls, including North West Brook		1	
Allan McQuarrie	St. Mary's River	St. Mary's River, Sher-	.	15 00
John McDaniel	District of St. Mary's	Sherbrooke	do Overseer	40 00 100 00
Adam Kirk	St. Mary's River extending from Alex. Ross' (above still waters) to	}		
Alex Degg	Hugh Halters' on the West River	Glenelo	Warden	30 00 25 00
D. McC. Sinclair	St. Mary's River From Sinclair's Mill to Headwater	Goshen	do	20 00
Luke Harpell	From mouth to head of Indian River	Indian River, St. Mary's District		15 00
D. Cameron, sen	West River St. Mary's from Wallace Bridge to head of River		do	20 00
Frederick Mattie	Tracadie River in Counties of Guys-		<b>!</b>	20 00
	boro' and Antigonish	Antigonish	do	15 00
ĺ	Hali x County.			
William Anderson	Halifax County, East Division, Dart-	,	1	
1	mouth to Ecum Secum From Snip Hurbor to Chezzetcook,	Musquodoboit Harbor	Overseer	150 00
- 1	inclusive	Ship Harbor	Warden	30 00
John Fitzgerald l	Sheet Harbor	3	do	40 00
Archibald Kidston	From Peggy's Cove to Terrance Bay,	Portuguese Cove	Overseer	150 00
,	Nine Mile and Prospect Rivers From Hubert's to Peggy's Cove,	Spryfield	Warden	40 00
Machanier Mason	Margaret Bay, Ingraham and Indian			
	Rivers	Margaret Bay, Peggy's Cove, W.O	do	40 00
Daniel Mosher (	Cow Bay Run	Cow Bay, Dartmouth	do	20 00
Donald McCleam	Ohezzetcook River	Chezzetcook River	do	30 00
menry Baicam b	Salmon River	Salmon Kiver	do	30 00
onn McCurdy	Middle Musquodoboit	Middle Musquodoboit	do	30 00
ames Miller	langier River	Tangier River	do	30 00
Neu McLean	ennant River	Hubbard's Cove	do	40 00
ohn Taylor	Tangier River Pennant River Musquodoboit Harbor	Musquoqopoli Harber	do	30 90
roum layiot	Trene madfocopore triver	Little Musquodoboit River	do	30 00
Geo. Parker	Opper Musquodoboit	Upper Musquodoboit	a	
		River	do	30 00
Daniel Cameron	toser's River and Ecum Secum and		i	
Daniel Cameron M Geo. Keiser L	foser's River and Ecum Secum and Smith's Brook	Moser's River	do	30 00

Name.	District.	Address.	Overseer or Warden.	Salary
	Brought forward			\$ c
	Halifax County.—Continued.		1	0,000
Wm Goo Wellzer	Little Salmon River	Little Salmon River		
	Big Salmon River or Lawrencetown	Preston Road	Warden	20 0
	River Sackville River	Lawrencetown		25 0 40 0
F. G. Tolson	Hants County.	Backville Kiver	αο	400
<b>-</b>				
P. S. Burnham	Hants County, Western Division, from Western County Line to Walton	Windsor	Overseer	100 0
John B. Colter James Mosher	Shubenacadie River		do	30 0
<b>T.</b> B. O'Brien	East Division, from Walton to Col-	Brooklyn	l. i	30 0
Joseph Mosher	Kennetcook River, from mouth to	Maitland	Overseer	100 0
James M. O'Brien	head of tide	Newport		50 0 30 0
i	Inverness County.			
Murdoch A. Ross	Inverness County, East Division do do	Forks Margaree N.E. Margaree	Overseer	100 0 100 0
Peter Coady,	From mouth of Margaree River to South-west Chapel	S.W. Margaree, W.O	1	25 0
Neil McKay	Upper Waters and tributaries, Mar-	S.W. Margaree River	!	25 0
John Cameron	Inverness County, Western Division  Mabou River	River Inhabitants		100 00 25 00
Michael McDonald	River Dennis	River Dennis, W.O	do	25 00
Donald McDonald.	River Inhabitants	River Inhabitants, W.O	do	25 0
A. McLellan		Broad Cove	do	25 00 25 00
Hugh Cameron		S.W. Mabou Margaree	do	25 00
nneth McKenzie	Ainslie Lake Crowdis Bridge to head of river	Big Intervale, Mar-		20 0
anem menenzie	Cion ale Briage to Roug of 111 of the	garee, W.O	do	25 00
Malcolm McLeod	do do	N.E. Margaree	do	25 00
Mark Crowdis	From Crowdis Bridge to Forks, North-	P: - T-4io	do	25 00
Coores In maken	east Margaree River do do	Big Intervale N.E. Margaree	do	25 00
George Ingraham  John Carroll	From Margaree Harbor to South-west		l ""	
1	Chapel	S.W. Margaree	do	25 00
Donald McDonald.	Whycocomegh Ray	Whycocomagh	do(	25 00
Malcolm McKay	Trout River	Lake Ainslie	do	20 00
	King's County.			
Adolphus Bishop	King's County	Kentville	Overseer	125 00
John E. Starr	dò	Port William	ao;	250 00
W. McIntyre	Annapolis River	Kentville	Warden	30 00 20 00
rad Benjamin	Gaspereaux	Gaspereaux	do	20 00
John Bachanan	do	do	do	20 00
Blias Bishop	wv	400010000 01490001		
				7,950 00

Name.	Name. District.		Overseer or Warden.	Salary.
	Brought forward		 	\$ ets 7,950 00
Oss Daddan				
Geo. Moland	Lunenburg County, East Division Middle, Gold, Martins and Musha- mush Rivers Eastern River	Chesterdo	Warden	100 00 25 00
			do	25 00
Wm. Mosher	Middle River Lower Gold River Middle Gold River Gold River, Upper Martin's River Lunenburg County, West Division From mouth of Lahave River to	Poseh Hill Charter	do	25 00
Fd-mand Panlan	Cold Piron Unnon	Now Ross	do	25 00 25 00
Jos Langilla	Martin'a River	Chester	do	25 00
Hy S. Jost	Lunenburg County, West Division	Lunenburg	Overseer	100 00
Chas. Pernette	From mouth of Lahave River to	J	1	
•	Wilkie's Cove	do	Warden	25 00
John Artz	Wilkie's Cove to Henry Koch's From Henry Koch's to Knock's	Bridgewater	do[	<b>25</b> 00
Jas. Mossman	From Henry Koch's to Knock's	Lunenburg	do	25 00
Edward Morgan	Knock's to source of Lahave River	Lahave River, New		05.00
	16 - 1 1 Di	Germany, W.O	do	25 00 25 00
John Andrews	Mushamush River Petite River, mouth to Wallace Brook	Patita River	do	25 00
Geo. A. Nesditt	Petite River, from Wallace Brook to	1 cuite luivei	αο	20 00
	Source	Hebb's Cross, West	i {	
William Croft	East Gold River, from Bongald's Point to Gold River Branch, thence	Conquerall	do	25 00
	to Clark's Clinton's and Henry's	Chester Basin	do	25 00
Taba WaDaaalii	Picton County.			
	Pictou County, East Division, in- cluding Sutherland's French and Barney's Rivers, Bailey's Brook and Shore Fishery from Pictou Harbor Eastward to County Line	' i	Overseer	170 00
J. McKay	Barney's River	Barney's River, W.U	Warden	25 00 25 00
				25 00 25 00
Den Maleen	French River	Bailey's Brook, W.O.	do	30 00
David Marshall	Picton County, West Division, in-		""	
	cluding Middle, East, West, Cariboo.	!	_	
	Toney and John Rivers	New Glasgow	Overseer	140 00
John Turner	French River	French River		25 00
Wm. Smith	East River	East River	do	25 00 25 00
Robert Archibald	Middle River	West Pirer	do	25 00 25 00
Wm. Evans	West River	River John	3 -	25 00
Capros McKensis	River John	Cariboo River	do	25 00
John McDonald	Barney's River, from McDonald's			
į.	Bridge to Head	Barney's River, W.O	do	25 00
l	Grant's Factory, from tide to Iron Bridge Coal Mine	Churchwille	do	25 00
William Passas	Grant's Factory to East Branch Lake	Bridgeville	do	25 00
Donald Frager	Fork and West Branch Lake	Hopewelli	do	25 00
Donald Miller	East River of St. Mary's	Garden of Eden	do	20 00
			i-	2 202 00
	Carried forward368			9,185 00

Name.	District.	Address. Overseer or Warden.		Salary.
	Brought forward		ļ	\$ cts 9,185
	Queen's County.			
Samuel T.N. Sellon	Queen's County	Liverpool	Overseer	190 00
	Fort Point to Salmon Rocks, Milton Bridge, on Liverpool River	do	Warden	25 00
	Milton Bridge up to Port Liverpool	Milton	do	50 00
Geo. Snadden	Salmon Rock to Puddingpan Island, around the Coast	1	1	20 00
Henry Hooker	Puddingpan Island to Toby's Island, up Port Medway River to Dog Cove	1	İ	30 00
John Fitzgerald	From Steam Mills to Salter's Falls on Port Medway River		İ	1
Barnabas Miles	Salter's Falls to Pawn Hook on Port		ĺ.	30 00
	Medway River Pawn Hook to Brookfield	Liverpool	do	20 00 20 00
	Fort Point to Western Head, Liver-	l do	do	15 00
James Farquhar	Western Head, Liverpool Harbor, to Broad River, Port Mouton and Port		f 1	
Solomon Lonas	Port Medway River	' do		30 00 30 00
	Richmond County.			
Duncan Cameron	Eastern Division, from River Bour-		i i	
Zanoun Cameron.	geoise to East Boundary of County, including said river		0 = 0 = 0 = 0	125 00
	Grand River	Grand River, W.O	Warden	
	Western Division, from River Bour- geoise to West Boundary of County	Arichat.	Overseer	125 00
P. W. Grouchy	Decousse River	_ do	Warden	30 00
John Proctor, sen	Inhabitants River	Port Hawkesbury	do	20 00
A oranam Sampson	Petit Degrat Inlet	Petit Degrat	do	30 00
Justinian Sampson	L'Ardoise	L'Ardoise	do	30 00
Unaries Grant	River Inhabitants	River Inhabitants	do	20 00
Alex. Smith	West Bay, Black River	West Bay	do	30 00
Edward Madden	West Bay, Black River	River Bourgeoise	do	30 00
Geo. Donahoe	River Moulin	River Moulin, Gran-	_	
		digue Ferry, W.O	do	30 00
Patrick Kyte	River Moulin	River Tier. St. Peters	do	<b>25</b> 00
Felix Gerroir	Grand Ruisseau	Grand Ruisseau, Ari-	_	
William Kehoe	False Bay and Breen's Brook	River Bourgeoise, W.O	do do	25 00 25 00
į		,		
	Shelburne County.	İ		
Samuel Mair	Shelburne County	Shelburne	Overseer	125 00
William McKay	Clyde River	do	Warden	20 00
M. Greenwood	Clyde River Round Bay River and Indian Brook	Clyde River, W.O.	do	20 00
George Archar	Birchtown River	Shelburne	do	15 00
Richard McCill	Roseway River	do		20 00
James Tranca	Landan Diman	do	do	30 00
Hanny Ashaman	Jordan River		uo	20 00
ACKETMAN	Green Harbor	Island W.O.	do l	20 00
P. Crowell	Barrington River	Island, W.O	do	20 00
OTOMOH "	DELITER TOR DIVEL	Darring Mar		
/ 1	Carried forward	######################################		10,490 00

#### PROVINCE OF NOVA SCOTIA .- Concluded.

Name.	District.	Address.	Overseer or Warden.	Sala	ry.
	Brought forward			\$ 10,490	cts.
	Victoria County.	į		: 1	
J. W. Burke	Victoria County, North Division, from		!		
	Smoky Head to Bay St. Lawrence	Ingonish	Overseer		00
Donald McRae, jun		Baddeck		120	00
John McLellan	Middle River				
		Baddeck			00
	Middle River, Upper Settlement		do		00
Donald McQuarrie.	do				00
	Baddeck River		a -		00
Donald McAuley	do		do		00
Description McKenzie	Badeck River and tributaries	Poddack	do		00
Francis Arnold	do North Branch	do			00
Angua McDonald	Washabuck River	Washahnel River	do		00
Kannath Campbell	Indian Rrook	Middle River	do		00
Rodrick Reaton	Indian Brook Hume's River.	McNaughton's, W.O.	do		00
William Foyle.	Peter's Brook	Baddeck River	do		00
John McCharles	Peter's Brook	Middle River	do		00
Donald Bochaman.	Barachois River.	Barachois River	do		00
Malcom McIvor	Indian Brook	Indian Brook	do	30	00
Jos. Guinn	North River	North River	do	30	00
Geo. Burton	Salmon River, Bay St. Lawrence	Bay St Lawrence, W.O.	do	30	00
Jos. Hellen	Cape North	Cape North	do	30	00
	Yarmouth County.				
Enos Gardner	Yarmouth County	Tusket	Overseer	150	00
J. A. Hatheld	From Reynard's Falls to Lower Nar-	do	177 3		00
W:114 W	rows, Tusket River	do			00·
William Prosser	Gurrill's Bridge to Coldstream Branches of River above Reynard's				
	Falls.		do		00
Bustace Nickerson	Salmon River.	Yarmouth,	₫o		00
Edward Perry	Little River	do	do		00
Jerome Doucet	Tusket River	Tusket			00 00
Toponh M. White	Tusket Forks	Falloka	do		00
Wm Thurston con	Chegoggin River	Chegoggin River	do		00
J. Ingraham Brand	Bel Lake Chegoggin River Pubnico and Argyle	W. Publico	do		00
		i		11 000	00
	Total			11,660	UU

#### PROVINCE OF NEW BRUNSWICK.

W. H. Venning	New Brunswick	St. John, N	т.в	Inspector	7 400 00
C. R. Venning		do	•••••	Fisheries Clerk	400 00
	Albert County.				
Winthrop Akerly Wallace Taylor	County of Albert	Harvey Coverdale .	••••	Overseer. Warden	100 00 40 00
•	Carried forward		• • • • • • • • • • • • • • • • • • • •		1,940 00

#### PROVINCE OF NEW BRUNSWICK .- Continued,

Name.	District.	Address.	Overseer or Warden.	Salary.
	Brought forward			\$ ct 1,940 00
	Albert County. Continued.		]	
C. Mc atchey	Mouth of Petitcodiac River and Dor- chester Bay	Hillsboro'	Warden	40 0
Jacob Beck	Pollet River	Elgin	do	<b>3</b> 0 00
J. B. Kinne	Germantown Lake and Shepody River	Hopewell Corner	do	40 00 40 00
Bartiet Oliver	Rocker Bay	Waserside	<b>do</b>	<b>40 0</b> 0
	Carleton County.			
Hugh Miller	Miramichi River (S.W.) from Head			20.0
Gaorge Burt	Waters to Forks	Upper Woodstock	Warden	30 00 30 00
J. W. Scott	St. John River, from Eel River to	ļ	: !	
387:11: M)	Woodstock		do	30 0
William Inompson	The Upper Waters of the South West Miramichi, in the Parish of Aberdeen	East Glassville.Smith's		
		W 0	do	<b>30</b> 00
	Charlotte County.			
B. L. Ounningham	Inner Bay of Passamaquoddy	Chamcook, W.O	Overseer	70 0
James Brown	Campo Bello and West Isles, with		1 1	100 0
Frank Todd	coast and streams in Charlotte Co. St. Croix River and tributaries			120 0
W. B. McLaughlin.	Grand Manan Island and spawning grounds	l =		
gamm 1 Diale	St. George to Beaver Harbour.	Grand Manan	Worden	*240 00 30 00
Robert Dixon	Seeley's Cove to Lepreaux	Lepreaux	do	30 0
Leonard Best	East District, from La Tête to	1	[	340.0
T.W. Land	Lepreaux	Beaver Harbour, W.U	do	1 <b>6</b> 0 00
James Russell	Deer Island	DCCI IBIAIIC	u	•••
	Croix River	St. Andrews	Warden	30 00 30 90
Andrew Gilmour	Northern Head, Grand Manan	do	do	30 0
John Thomson	West side, Deer Island	Deer Island	do	30 00
	Gloucester County.			
Tanana III ahaan	1	}	1	
James Hickson	River Nepissiguit and tributaries, with sea coast and streams from Belle-	!	i	
	dune River to Grindstone Point	Bathurst	Overseer	250 00
William Bateman.	Nepissiguit River		warden	50 00
Juste Haché	Oyster Beds in County, Caraquet and Shippegan	Caraquet	Overseer	100 00
Justinien Savoy	Shippegan Tracadie	Tracadie, W.O	Warden	30 00
John L. Veno	PokemouchePetit Rocher, from Belledune to Mill	Pokemouche	do	30 00
	Stream	Elm Tree, Madisco	do	40 00
Miles Dempsey	Solmon, Reach, from Bass River to	•	1 1	30 00
	Grindstone Point Grindstone Point to Grande Anse	Daimon Deach	do	30 00
Oonknium				0.020 00
	Carried forward			3,650 00

### PROVINCE OF NEW BRUNSWICK -Continued.

Name.	District.	Address.	Overseer or Warden.	Salar	. <b>y</b> .
	Brought forward			\$ 3,650	
A 1 1 1 TY - 3.5	Gloucester County.—Continued.	Shinnagan	Worden	30	00
W. Rogers John Calnan, jun	Shippegan Tête-à-gauche River That part of River Tête-à-gauche from a mile above the Mill Dam to the	Tête-à-gauche, Bathurst	do	25	
	source of said River	INTRIBUTE	1 uo	25 50	
Christ. Lanteigne	Carraquet Herring Banks	Caraquet	do	30	
	Kent County.				
F. B Légaré	Cocagne River	Little Buctouche River	warden	100 75 30	00 00
M. A. Girouard James Harnett	From the mouth of Nicholas River on the Richibucto upwards, including	i		30	
Lazare Guimoa	Nicholas River		1	<b>3</b> 0 7 <b>5</b>	
Nichelas Muzzeroll	River	do	do	50	
	Sapin Kings County.	<b>40</b>	40	30	00
0 10			İ		
	From mouth of Smith's Creek up- wards Mill Stream	Smith's Creek, W.O Studholm, Apohaqui		100 30	
N. H. DeVeber	St. John River and Belle Isle Bay and streams running thereinto	Westfield		50	
Samuel Gamblin	Washademoak Lake and its tributaries in Kings and Queens Counties			30	00
	Northumberland County.				
	Burnt Church River and tributaries, and Upper Tabusintac	Upper Neguac	Overseer	100	00
William Blake	Lower Tabusintac River	Tabusintac	warden	50 50	
	of Glenelg and Chatham	Chatham	do	100	00
	Miramichi River and tributaries from Beaubair's Island to Blackville	Upper Nelson	do	160	00
	From Lower line of Blackville to Blissfield.	Blackville	Overseer	160	00
	Miramichi River (N.W.) and tribu- taries from Chatham Ferry upwards	Newcastle	do	400	00
Aaron Hovey	Miramichi River (S.W.) and tribu- taries from Nelson's to Head of	Daiastama	Worden	30 (	00
George Bryanton	Hovey Island.  From Elm Tree Brook to Squire Under-	•	j	30	
Kenneth Cameron.	hill's, on the S.W. Miramichi River Miramichi River (S.W.) from line of Blissfield to the head waters and			100	
	tributaries.	DOICSIOWIT	· verseer	5,590	
ļ	Carried forward	P# 0 4 2 1 2 0 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		<b>=</b> ,050 \	

# Schedule of Fishery Officers in the several Provinces, etc.—Continued.

#### PROVINCE OF NEW BRUNSWICK .- Continued.

Name.	District.	Address.	Overseer or Warden.	Salary.
	Brought forward			\$ ets 5,590 00
	Northumberland County.—Continued		į	·
Datrick Parain	From Underhill's to Stephen Mit-	1		
1 actick beigin	chell's, on S W. Miramichi	Dumphey, W.O., Parish of Blackville, S.W.		
Thomas Smith	From lower end of Fingley's Island,	Miramichi	Warden	30 00
	on N.W. Miramichi, upwards, and the Big Sevogle	North Esk, Red Bank,		
J. A. Somers	From lower side of Ox Bow, on the	W.O	do	30 00
	Little South West, ur wards	do do	Overseer	30 00
Patrick Gillis	Little S.W. River and tributaries		Warden	30 00 30 00
	Renous River and tributaries			18 00
	From Dunbar's Point on N.W. Mira- michi to lower end of Fingley's Island; on Little South West to	_		10 00
	low er side of Ox Bow		do	30 00
	Big Sevogle to Square Forks Napan and Black Rivers and tribu-	do do	do	39 00
•	taries	Nappan, W.O., Chat-	do	30 00
John Williston	Bay du Vin River and Bay, with		1 40	30 00
	Parish of Hardwick, Fox and other			
	Islands and Stations on South side	Boy do Vin W ()	Owarsoan	100 00
James Russell	of Main Channel Miramichi River Miramichi Bay and Feeders	Lower Newcastle	do	150 00
	South West Miramichi, within Parish			
Samuel Freeze	of Blissfield From Doaktown to Hovey Islands, in		warden	50 00
	the Parish of Blissfield, on the South			
T.1 11 1	West Miramichi River	Doaktown, Miramichi	Overseer	100 00
John Holmes	From lower side Ox Bow, on Little South West Miramichi, upwards	Ox Bow. Miramichi	do	50 00
Nat. Morehouse	Arbo Settlem nt, Parish of Blackville,		i	
I To Claumblan	South West Miramichi	Arbo Settlement	Warden	30 00
J. I. Cougnian	Coughlan Settlement, Parish of Black- ville, South West Miramichi	Coughlan Settlement	do	<b>3</b> 0 00
John Doyle	Tabusintac and Bartibog Rivers Whitney Settlement, N.W. Miramichi		do!	<b>3</b> 0 00
Peter Russell	Whitney Settlement, N.W. Miramichi	Whitney Settlement	do	<b>3</b> 0 00
	Queen's County.			
Isaiah Langan	Salmon River	Chipman, W.O., Gas-	Wandan	20.00
John Rosand	Canaan Rivan	Longs' Creek, Johnston		30 00 30 00
I. T. Hetherington	From Cole's Island' to foot of Washa-	,	. 1	
_	demoak Lake	Jenkins, W.O. Johnston	Overseer	100 00 25 00
W. H. Clark	Headwaters, Washademoak Lake Narrows do	Cambridge	do	25 00
John J. Camp	Jemseg River and Grand Lake	do	do	30 00
Robert McMann	Newcastle River and Grand Lake Between Maguapit and Grand Lakes.	Canning.	do	25 00
U. Estabrook	Between Maguapit and Grand Lakes.	Maguapit Lake	do	30 00 30 00
Richard P Voomen	New Canaan River New Castle River	Newcastle River	do	30 00
Hiram Starkey	Salmon River	Salmon River, Chip-		
		man, P.O	do	30 00
	Carried forward	**************		6,803 00
	373		·	-

#### PROVINCE OF NEW BRUNSWICK .- Concluded.

Name.	District.	Address.	Overseer or Warden.	Salary.
	Brought forward	i :		\$ cts 6,803 00
	Restigouche County.			
E. Ferguson	Little Dune River to Morris Rock	Dalhousie	Overseer	100 00
A. McPherson, jun I. McMillan	Charlo River	Charlo, W.O	Warden	
Dugald Carmichael	do from mouth to Kettle Hole That part of Bay des Chaleurs front- ing on the County of Restigouche and extending from Belledune Point upwards to Campbellton; together with the Rivers Restigouche, Upsal-	do		
	quitch, Eel, Charlot, Jacquet and their tributaries		Overseer	salary
	Sunbury County.			
G. W. Hoben	St. John River, Indiantown, to County line of York	Burton, W.O	Overseer	100 00
× .	St. John County.		! !	
Joseph O'Brien	St. John County	Carleton, St. John	Overseer	150 00
Wm. E. Skillen	Eastern part of St. John County, from Quaco Head to Goose River	St. Martins	do	100 00
	Victoria County.			
Chas. Roberts	County of Victoria	Andover	Overseer Warden.,	100 00 30 00
	River	Rocky Brook, Parish of	do	30 00
G. Bedell	Salmon River	Andover	do	30 00
1700MIO F PARET	LODIQUE INIVEL	ACLUBERGE, W. U.	' (10)'	30 00
Edward Maloney	Middle Division, Tobique River Upper Division do	Tobique River, Parish	! !	30 00
-	Westmoreland County.	of Lorne	do	30 00
W R Deegen	Shediac Harbour and River	Shadiaa	Owenness	100 00
D. T. Cormier	Dorchester Bay. Bay Verte, Port Elgin and Tidnish	Gautreau Village	do	60 00
nugn Daviuson	Rivers	Bay Verte	do	100 00
	York County.			
J. Campbell	Grand Pass on St. John River up- wards from Crock's Point to Lower			
	Line of York County, including Nashwaak River	Kingsclear, W.O., Fred-		
Wm Brown	St. John River, from Upper Line of York County to Crock's Point, on	ericton	Warden	60 00
A Main	River St. John	Southampton	do	6C 00
A. BLUIF	From Price's Bend to Burnt Hill, S.W. Miramichi	Bloomfield	do	30 00
	Total			8,018 00

# Schedule of Fishery Officers in the several Provinces, etc.—Continued.

#### PROVINCE OF PRINCE EDWARD ISLAND.

Name.	District.	Address.	Overseer or Warden.	Salary.
Ewen Clark Michael Ready James Clow Lionel Garnam Wm: Whitehead Thomas Murphy Roderick Morrison Alex. McRae David Rattray		Dunk River  Winter River  do  do  South West River  Trout River  Pinette River  Huntley River	Warden do do do do do do do do	150 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00
Laurence Phee James T. Reid James Ramsay Hugh McIntosh Peter H. Perry Abraham Wall Patrick McBride Wm Burns	Tignish, Lots 1 and 2  Dunk River, Lot 25  do do	Nail Pond         Minimigash         Lot 13         Lot 14         Tignish         Lot 25         de         t do	do do do do do	150 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00
James MacInnis John MacGuire James MacAulay Patrick MacInnis Wm. R. Dingwell John Brien Thomas Clay Duncan D. Campbell Francis Cook Andrew Whelen	do Midgell River North Lake Bay Fortune River Saufrage River Grand River	do do Midgell River North Lake Bay Fortune River Raufrage River Grand River Montague Murray Harbour Souris River	do do do do do do	150 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00 30 00

### PROVINCE OF BRITISH COLUMBIA.

		1		1	
Alex. C. Anderson British	Columbia	Rosebank,	Victoria	Inspector Fisheries	600 00

#### PROVINCE OF MANITOBA.

Name.	District.	Address.	Overseér or Warden.	Salary.
Donald Gunn	Manitoba	LittleBritain,Winnipeg	Overseer	200 00

#### RECAPITULATION.

Samuel Wilmot, Superintendent Fish-Breeding Establishments in the	
Dominion	2,000 00
Ontario	6,180 00
Quebec	5,880 00
Nova Scotia	11,660 00
New Brunswick	8,018 00
Prince Edward Island	1,375 00
British Columbia	60 <del>0</del> 09
Manitoba	200 00
-	
Total	<b>35,9</b> 13 00

JAMES C. POPE, Minister of Marine and Fisheries.

(Certified.)

W. F. WHITCHER,

Commissioner of Fisheries.

### APPENDIX No. 40.

STATEMENT of Expenditure on account of Fisheries, for the Fiscal Year ended 30th June, 1878.

To whom paid.	Se	rvice.		Amount.	Total.
	QN	rario.		\$ cts.	\$
. W. Kerr	For 12 months' salary a		to 30th		
hos Cilebeira	June, 1878			500 00	
has. Gilchrist	do	do		400 00	
ames Patton Knight	do do	do do	•••	250 00   250 00	
eter Kiel		do		200 00	
. Boismier	do	do		200 00	
. McMaster	do	do		200 00	
harles Wilkins	άο	ďo		200 00	
eorge Cochrane		do		200 00	
. G. Bingham	do	do		200 00	
Mooney	do	do		200 00	
. McCann.	do	фo	•••••	175 00	
McRae	фo	₫ο		150 00	
V. E. Foot	ďo	do	•••••	125 00	
. C. McKinnon Wilson.	do	do		100 00	
m. Plews	do do	do do		100 00	
eo. S. Miller	do	do		100 00	
. B. Abrey	do	ďο		100 00	
mes Sutherland	do	do		100 00	
avid Conger	đo	do		100 00	
mes Muir	do	do		100 00	
enry Lawe	dо	<b>d</b> o		100 00	
amuel Fraser	do	do		100 00	
mes Dickson	₫ο	ďο	••••••	100 00	
aniel Bowen	ďο	ďo		100 00	
obert Watt	do	do		100 00   75 00	
hn McGregor Wallace	do	do do		50 00	
D. McMillan	do do	do	• • • • • • • • • • • • • • • • • • • •	50 00	
Huff	do	do		50 00	
A Palen	do	do		50 00	
L. Thompson	đo	do		50 00	
ugh Thompson	do	do		50 00	
avid Hamilton	do	do		50 00	
J. Harrington	do	₫o	*** **	50 00	
McAllister	₫o	do	•••••	50 00	
G Wilcox	do	do	*****	50 00	
lex. McBride	& <b>0</b>	do	•••••	50 00 b	
McMichael	do	do do	•••••	50 00	
Hugheon ex. McKenzie	ie	do	•••••	50 00	
hn Lyon	te do	do		50 00	
Telfer	do do	do	4	00 00	

377

To whom paid.	Service.		Amount.	Total.		
	,				\$ cts	. <b>\$</b> et
		rought forward	•••••••		5,425 00	
	C	NTARIO.—Con	tinued.			
ames Commins		alary as Fisher		to 30th	<b>E</b> 0.00	
Vm. McGown	June do	78	do		50 00 50 00	
V. Hull	do		do		37 50	i
ames McFadden	do		do		30 00	}
Vm. Prosser	do		фo		30 00	
lenry Hunt	do		do	•••••	20 00	
V. R. Young	9 do 6 do		do do		37 50 50 00	
lex Proulx	do		do		25 00	
Vm. Hastings	5 do		do		20 80	1
. Morrow	3 do		do		6 25	
I. L. Russell	do		ďο	•••••	6 25	
. Wellbanks	2 do		do		12 50 12 50	
V. Hicks	do		do do		8 33	i i
A. Cameron	do do		do		6 66	
W. O. Pollock	do		do		5 00	
ames S. Webster		pecial Fishery C			368 00	1
Vm. Besserer	do	do			10 00	
P. Morin	ďο	do	*******	• • • • • • • • • • • • • • • • • • • •	48 00	1
A. Eschembank	do	do	Themas Dis		20 00 40 00	
Thomas Cartier C. McQueen	do	pecial Guardian, do	do	·····	27 06	
A. Brady	do	do	do		26 23	
Wm. Fahey	do	do	Lake Const	tant	51 00	
. W. Kerr	12 months'	disburgements a		erseer	1. 1.	ì
		ı June, 1 <b>8</b> 78			870 20	
Chas. Gilchrist	do		do do		864 45 377 00	
J. Wilkins	do do		do		346 00	
C. L. Bingham	do		do		333 00	
ames Patton	do		do		323 19	
Frazer	do		₫o		313 90	
. Mooney	do		do	*****	278 20	
J. Cochrane	do do		do do		186 85 128 89	
A. C. McKinnon	do		do		128 25	
A. J. Harrington	do		đó		115 35	
W. E. Foot	do		do		106 33	
eter McCann	do		ġο	******	106 27	
eter Kiel	do		do	••••••	104 00 97 85	
. Boismier	do do		do do	*****	90 77	•
A. McKenzie	do		do		79 98	1
. Hamilton	do		do		69 82	
3. B. Abrey	do		do		63 50	
3. S Miller	do		₫o		54 25	
as. Muir	do		do		45 75	
A. Kn ght	do		do do	•••••	45 55 44 00	
L. Telfer	do do		do		38 40	
John McGregor	do		do		38 00	
Robt. Watt	do		do		36 64	
McAllister	do		ďο		27 00	
John Wallace	do		do		25 25	
f. L. Thompson	do		do		23 10	'

	Se	ervice.		Amount.	Total.
				\$ cts.	\$ cts
	Brought	forward		11,785 23	•••••
	ONTARIO.	-Continued.			
W. R. Young		ements as Fishery O	rerseer,	21 77	
Wm. Plews	do	do	•••••	20 00	
H. Griffiths	do do	do do		19 05 1 16 00 i	
J. Lyon		do		15 00	
J. G. Hicks		do	•••••	14 65	
D. Bowen		do	•••••	13 50	
H. Lawe		do do		11 00 8 00	
Peter Huff H. Hunt	do do	do		8 00 ,	
James S. Webster	Disbursements as Spec	cial Fishery Consta	ble, to		
John Grimes	30th June, 1878	do		144 20 189 28	
W. C. Besserer		do		<b>85 60</b>	
J. Connor		do		75 70	
C. Barbeau		do		110 00	
A. Dallaire	j do	do		25 00   20 00	
J. Hughes E. J. O'Neil	do do	do do		14 00	
Wm. Fahey	Dishursements as Speci-			11 00	
- Luzejiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	June, 1878			27 00	
Thomas Cartier	do	do		20 30	
T. McQueen	do	do		15 00 14 00	
J. C. Darke Department of Interior	Repairs to boat			51 50	
-			-		12,723 88
T.1. 34	•	EBEC.			
John Mowat	Hor I's months' salary a			1	
		s Fishery Overseer,	to 30th	300 00	
C. Caron	June, 1878	<b>d</b> o	to 30th	200 00	
C. Caron H. W. Austin	June, 1878 do do	do do	•••••	200 00 200 00	
R. W. Austin R. W. H. Dimock	June, 1878 do do do	do do do	•••••	200 00 200 00 200 00	
R. W. H. Dimock P. Vibert	June, 1878 do do do do	do do	•••••	200 00 200 00	
H. W. Austin R. W. H. Dimock P. Vibert W. C. Willis	June, 1878 do do do	do do do do	•••••	200 00   200 00   200 00   200 00   150 00	
H. W. Austin. R. W. H. Dimock. P. Vibert. W. C. Willis. G. L. Duguay. J. O. Belanger.	June, 1878 do do do do do do do	do do do do do do		200 00   200 00   200 00   150 00   150 00	
H. W. Austin. R. W. H. Dimock P. Vibert W. C. Willis G. L. Duguay J. O. Belanger P. C. Gobeil	June, 1878 do do do do do do do do	do do do do do do		200 00 200 00 200 00 200 00 150 00 150 00 150 00	
H. W. Austin. R. W. H. Dimock P. Vibert W. C. Willis G. L. Duguay J. O. Belanger P. C. Gobeil G. Mathurin	June, 1878 do do do do do do do do	do do do do do do do		200 00   200 00   200 00   150 00   150 00	
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Gauvreau	do do	do do		104 05   103 45	
. Beaton	do	do		90 85	
. B. Chevalier	do	do		87 90	

To whom paid.	Service			Amount.	Total.	
	Brought	forward		\$ cts.	\$ ct	
				10,612 75		
	QUEBEO.	-Continued.	}	1		
	For 12 months' disbursemento 30th June, 1878		verseer,	61 30		
R. W. H. Dimock	do do	do		59 58		
J. J. Letourneau H. W. Austin		do do	•••••	58 97 58 80		
Wm. McLeod		do	••••••	50 00		
J. J. Fox		do		42 50		
J. Boily		do	••••••	41 50		
J. E. Demeule J. Phelan		do do	•••••	41 50 35 50		
D. Dewar		do		25 00		
Thos. Evans		do		21 78		
Job Bilodeau		do	•	19 50		
L. P. Huot		do	••••••	18 95		
Wm. Clyde A. Watt		do do	*****	17 00		
J. Simard	do	do		4 00		
Jas. S. Webster	Disbursements as Special l	Fishery Constable,	to 30th	J		
O. Dambara	June, 1878	an Charlett Cirken	- 0	120 00		
o. Barbeau	Wages and disbursements stable, to 30th June,	as Special risher	y Con-	700 98		
A. Dalaire	do	do		148 50		
A. Eschemback	do	do		72 45		
	Salary as Fishery Guardia	n to 30th June, 1	878	118 61		
H. G. Patterson	Salary as Fishery Guard 30th June, 1878	ian, St. John Ki		172 00		
A. Malouin	Salary as Fishery Guard June, 1878	lian. Anticosti, 1	o 30th	60 00		
r. Gagne	l do	do		60 00		
Jerry Miller				75 00		
lonald Meleran	June, 1878 Guardie	an. Unner Sagne	new to	75 00		
Johang Modaren	Salary as Fishery Guardia 30th June, 1878	m, obber omere		100 00		
H. Bouchard	do	do		92 00		
A. Simard	do	do	•••••	92 00		
E. Bouchard E. Poitras	do do	do d <b>o</b>	•••••	40 00 20 00		
	Salary as Fishery Guardia		o 30th			
	June, 1878			80 00		
A. Fairbairn	Disbursements as Special l	fishery Guardian	to 30th	67 50		
P. Latraverse	June, 1878 do	do		<b>5</b> 0 00		
E. J. O'Neil.	do	do		35 00		
Ottawa River Navigation	1	_				
Co	Passages, Special Constab	les		130 80		
Steamer "Saguenay"		ns		1 50		
08. Fertier	Boatman			20 00		
C. V. H. Ferland	Professional services			10 00		
Mclonell	do			9 90		
. O. Laferrière				7 60   8 00 ;		
J. E. (Fauvin	Plans Disbursements as Fishery	Officer		67 00		
Charest	Taking prisoners to goal			49 00		
). Dianne	do do			28 10		
Learns & Ryan	Blankets for constables		·····	4 00   37 50		
л. п. nagray	Advance on account of sa	.1a.: y		31 50		
	m		1		13,662 55	

To whom paid.	Service.			Amount.	Total.
	i	VA SCOTIA.		\$ cts.	\$ cts
	1	RY OVERSEERS AND justy of Annapolis.	WARDENS.	1	
W. T. Carty	1	• •	278	120 00	
T. Devers Miner Clark J. H. Pineo	do do do	do do do		25 00 25 00 25 00	
J. B. Dobson A. F. Morton J. H. Parker		do do do do		25 00 25 00 25 00 25 00	
			· · · · · · · · · · · · · · · · · · ·		<b>29</b> 5 00
	Cour	ity of Antigonish.	i		
A. W. McDonald Lochlin Cameron	do	do	8	125 00 30 00	
John Dexter Angus McDonald	do do	do do		30 00 25 00	
J. R. Aymer Colin Chisholm	do do	do do		25 00 25 00	
Alex. McAdam Donald Chisholm	do do	do do		25 00   25 00	
John Cummings	do j do	do do		25 00 20 0	
Duncan Frazer Albert Randall	do do	do do		20 00 15 00	
James Chisholm James McDougald	11 do 4 do	do do		22 92 6 25	
	Count	u of Cama Buston	-		419 17
<b>.</b>	ĺ	y of Cape Breton.			
Francis Quinan	for 12 months' salai do	ry, to 30th June, 187 do	8	120 00 1 120 00 1	
Yorke Barrington	do do	<b>d</b> o		120 00	
Anthony Spencer	do do	do do		25 00 25 00	
Dennis Murphy	do	do		25 00	
D. McDonald	do	do		25 00	
M. McLellan	ďo	do		25 00	
Patrick Keefe Donald McCormack	do do	do do	••••	25 00	
John McNeil		do		25 00 25 00	
William Burke		do		25 00	
Allan McAdam	do	do		25 00	
J. McEachen	do	do		25 00	
Thomas Moore Donald McDonald	do	do do	•••••••••	20 00	
Alex. McLean	do do	do		20 00 20 00	40 F 10ft
	Coun	ty of Colchester.	-		695 00
William Blair	For 12 months' salan		78	100 00	
J. W. Davidson	do	do		100 00	
R. J. Pollock J. Urquhart	<b>do</b> do	do do		75 00 50 00	
-	~	-2-363	-	-	1 400 17
ì	Car	382	· ······ · · · · · · · · · · · · · · ·		1,409 17

STATEMENT of Expenditure on account Fisheries, etc.—Continued.

To whom paid.	Service.			Amount.	Total.
	Bro	ught forward		\$ cts.	\$ cts. 1,409 17
	NOVA SO	COTIA .— Continue	d.		
	SALARIES	s, etc.—Continued.			
	County of A	nnapolis.—Continu	ied.		
James Bonyman	For 12 months' salar	y, to 30th June, 18	78	40 00	
G. N. Christie	j do	₫o		25 00	
G. Fulton	l do do	do do		25 00   25 00	
Wm. McElheney	do	do		25 00	
Henry Urquhart	do	do		25 00	
Thomas Davidson	do	do		25 00	
George Moore	ļ do	ďo		25 00	
M. G. Murray Wm. Winton	do do	do do		25 00 25 00	
Alfred Wright	do	do		25 00	
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s		40			615 00-
	Count	y of Cumberland.	}	i	
Isaac J. Hingley	For 12 months' salar	r to 30th June 18	78	100 00	
James King	do	do		100 00	
Elijah Fowler	do	do	***********	30 00	
Oliver Fillmore	do	do		25 00	
J. W. Moore.	do	ďο	********	25 00 1 25 00 1	
J. Brownell	do do	do <b>do</b>		25 00 25 00	
David Corbett		do		25 00	
Moses Harrison	do	do	*******	25 00	
F. L. Jenks	do	do	}	25 00	
W. C. Rindress	8 do	ďο		20 00	
Collingwood Pugsley	6 do 4 do	do	••••••	12 50 10 00	
J. Canham	4 do do	do do		12 50	
	40	40			460 00
	Con	unty of Digby.			
J. H. Morehouse	For 12 months' salar	v. to 30th June, 18	78	120 00	
L. A. Melancon	do	do		75 00	
H. E. Payson.	do	ďo		50 00	
A. L. Gavil	do	do do		25 00   25 00	
J. M. Devault Lochlin McKay	do do	do		25 00	
Robert Journey	do	do		25 00	
J. P. Thibodeau	do	do		25 00	370 00
			1		310 00
_	•	y of Guysborough.	1		
Jas. A. Tory	For 12 months' salar	y, to 30th June, 18	78	150 00	
John McDaniel	do	do		100 00	
Allan McQuarrie Donald Gunn	do do	do do		40 00   30 00	
Wm. Pride	do do	do		30 00	,
Edward Jordan	do	do		30 00	
Adam Kirk	do	do		30 00	
Iomas (11 1	4.	do		25 00	
James Clark	do	40		1	

To whom paid.	Service  Brought forward			Amount.	Total.
				\$ cts.	\$ cts. 2,854 17
	NOVA SCO	IIA.—Continued		-	
	SALARIES, E	TG.—Continued.			
	County of Guyst	orough.—Contin	ued.		
Alex. Ross	For 12 months' salary t	o 30th June, 1878	3	25 00	
James Cabill	do	do		20 00	
D. Mc. C. Sinclair	do	do		20 00	
Robert McKay James Nickerson	do do	do do		15 00 15 00	
Charles Kenney	l do	do		15 00	
J. R. Bruce		do		10 00	
Thos. McKeen		фo	••••	15 00	
Luke Harpell		do		3 75	
Juncan Cameron Fred. Mattie		do do		3 <b>3</b> 3   2 50	
Thos. McKeen			ber, 1877	30 00	
			-		€09 58
	County	of Halifax.		ĺ	
William Anderson	For 12 months' salary,	to 30th June, 18	378	150 00	
John Fitzgerald	do	do		150 00	
William Hall	do do	do do	•••••	40 00   40 00	
Nathaniel Masson	do	do		40 00	
Neil McLean		do		40 00	
James Blakely	do	фo		30 00	
Donald McLean		ďο		30 00	
Henry Balcom John McCurdy		do do		30 00   30 00	
lames Gardner	do	do		30 00	
John Taylor	do	do	******	30 00	
George Parker		do		30 00	
George Keizer	do	do		30 00	
James Miller	do	do do		30 00 20 00	
Daniel Mosher Donald McDonald	do   11 do	do		27 50	
W. G. Walker	9 do	do		15 00	
f. G. Tolson	6 do	do		20 00	
ohn Frazer	6 do	do		15 00	
D. Mosher	6 do 2 do	de do		10 00 4 17	
F. G. Tolson	Salary from 1st Ap		nber, 1877	30 00	
oseph Hamilton	Salary from 1st Jul	y, to 31st March,	1877	30 00	901 67
	Counts	of Hants.			J01 01
202			) To	,,,,,,	
P. S. Burnham B. O'Brien	For 12 months' salary,			100 00 1	
Joseph Mosher	do do	do do	***********	100 00 50 00	
as. Mosher	do	do		30 00	
M. O'Brien	do	фo		30 00	
W. Dinsmore	11 do	ďο		27 50	
B. Colter	l do	dο		2 50	340 00

To whom paid.	Service			Amount.	Total.
	Brough	nt forward		\$ cts.	\$ cts. 4,705 42
	NOVA SCO	TIA.—Continued	<i>l</i> .	1	
	SALARIES, E	TC.—Continued.			
	County	of Inverness.			
M. A. Ross	For 12 months' salary,	to 30th June, 18	78	100 00	
Hugh Gillies	do	do		100 00	
John Cameron	do	do do		100 00 25 00	
Peter Coady	do do	do		25 00	
John Meagher	do	do		25 00	
Kenneth McKenzie	do	do		25 00	
Michael McDonald	do	do do	•••••	25 00 <sub>1</sub> 25 00 <sub>1</sub>	
A. McLellan Hugh Cameron	do do	do		25 00	
James McGarry	do	do		25 00	
Malcolm McLeod	do	ďο		25 00	
Mark Crowdis	do	do do		25 00   25 00	
George Ingraham	do do	do		25 00	
Donald McDonald	do	do		25 00	
Malcolm McKay	do	do		20 00	
Donald McDonald	do	do to 204h M	1075	25 00 10 42	
J. McRae	Salary from 1st Jan	duary to zoth m	ay, 1510		680 42
	Coun	ty of Kings.			
J. E. Starr	For 12 months' salary,	to 30th June, 18	78	250 00	
Adolphus Bishop	do	do		125 00 30 00	76.
W. McIntyre	do	do do		20 00	
John Bochaman	do do	00		20 00	
Elias Bishop	do	do		3 33	
1	• .				448 33
	County	of Lunenburg.		•	l
0		•	170	100 00	
George Redden	For 12 months' salary,	to 30th June, 18		100 00	
H. S. Jost	do do	go	*********	25 00	1
James Corkum	do	do		25 00	
William Mosher	do .	do		25 00 25 00	
Hohn Hutt	do	do do		25 00 25 00	
James Langille Charles Pernette	do do	do		25 00	
John Artz	do	do		25 00	
James Mossman	do	do		25 00 25 00	
Edward Morgan	do	do do		25 00 25 00	
G. A. Nesbitt		do		<b>25</b> 00	l
Eli Hebb	do	do		<b>25</b> 00	
Edward Boylan	do	do		25 00	
William Croft	đo	do	******	25 00	5 <b>5</b> 0 00
	! 		l		6,384 17
	, ,	ed forward			

To whom paid.	Servics.			Amount.	Total.
	Br	ought forward		\$ cts.	\$ cts. 6,384 17
	NOVA S	SCOTIA.—Continu	ed.		
	SALARIE	is, etc.—Continue	i.		
	Co	unty of Pictou.	į		
J. McDonald	For 12 months' sale	ary, to 30th June	1878	170 00	
David Marshall Daniel McLeau		do do		140 00   30 C0	
J. McKay	do	do		25 00	
Donald Rankin	do	do		25 00	
William Stewart	do	do	**********	25 00	
John Turner William Smith	l do do	do do		25 00 25 00	
William Evans	do	do		25 00	
Robert Archibald	do	do		25 00	
David Languille	do	do	••••••	25 00	
George McKenzie John McDomald	do do	do do		25 00   25 00	
P. Delaney	do	do		25 00	
Donald Fraser	do	do	•••••	25 00	
William Frazer	do	do	•••••	25 00	
A. McKenzie Donald Miller.	10 do 2 do	do do		22 92   3 33	
DOZUITU MIIICI.	2 00	40	į-		691 25
	Cor	inty o' Queens.			
S. T. N. Sellon	For 12 months' sala	ry, to 30th June,	1878	170 00	
Theo. Ford	do	do		50 00	
denry Hooker	do do	do do	• ••••	30 00	
ohn fitzgerald	do	do		30 00	
Solomon Lonas	do	do		30 00	
Barnabas Miles	do	đο		20 00 i	
Stephen Smith	do	do do		20 00	
Reorge Snadden	do do	do do .		20 00 25 00	
onathan Smith.	do	do		15 00	
			-		440 00
	Count	y of Richmond.		Ì	
uncan Cameron	For 12 months' salar	y, to 30th June, 18	378	125 00	
dward Ballam	do	do	•••••	125 00	
. W. Grouchy	do do	. do	•••••	30 00	
braham Sampsonlex. Smith	do do	do do		30 00	
ustinien Sampson	do	do		30 00	
dward Madden	do	<b>d</b> o		30 00 1	
eorge Donahoe	do	do		30 00 1	
Murchisonatrick Kyte	do do	go go		30 00 25 00	
'elix Gerrior	do	do		25 00	
Villiam Kehoe	do	do	••••	25 00	
Proctor, sen	do	do		20 00	
harles Grant	do	do		20 00	575 00

To whom paid.		Amount.	Total.	
		Brought forward	\$ cts.	\$ cts. 8,090 42
	NOV	A SCOTIA.—Continued.		
	SAI	LARIES, BTC.—Continued.		
		County of Shelburne.	1	
Samuel Muir	For 12 months'	salary, to 30th June, 1878	125 00	
James Turner	do	do	. 30 00 1	
Henry Ackerman	do	do	1 00 00	
P. Crowell William McKay	do do	dodo	1 00 00 1	
M. Greenwood		do	1 00 00 1	
Richard McGill	do	do	. 20 00	
George Archer	do	do		
L. Freeman	10 do	do	25 00	<b>305 0</b> 0
		County of Victoria.		
I W Danks	E 10		120 00	
J. W. Burke	for 12 months	salary, to 30th Juue, 1878do	120 00	
Donald McRae, jun Angus McDonald	do	do	1 00 00	
Kenneth Campbell	do	do	1 00 00 1	
Roderick Beaton	do	do		
William Foyle	do	do		
John McCharles		do	30 00	
Donald Bochaman	do do	do	30 00	
Malcolm McIver Joseph Guinn		do	20.00	
George Burton		do	20.00	
Joseph Hellen		do	. 30 00	
John McLeilan		do		
John McDonald		do	05.00	
Donald McQuarrie		do do	25 00	
Donald McMillan Donald McAuley		do	25 00	
Hector McKenzie		do	. 25 00	
Donald McRae	do	do		
Frs. Arnold	do	do	25 00	740 00
		,		140 00
	<u> </u>	County of Yarmouth.		
Enos Gardner	For 12 months	salary, to 30th June, 1878	150 00	
J. A. Hatfield	do	do	. 30 00 1	
Jerome Doucette	do	do	05.00	
Wm. Kavanagh Wm. Prosser	do do	do	0,00	
Eustace Nickerson		do	) 25 00	
Edward Perry	do	do		
Vital Muise		do	25.60	
Joseph M. White		<b>d</b> o	05.00	
Wm. Thurston John Ingraham Brand	do 2 do	do do	4 17	
- one referense bisne	do			409 17
	1		-	9,544 59
		Carried forward		

To whom paid.	Set	rvice.		Amount.	Total.
	Brough	t forward		•	9,544 59
1	NOVA SCOT	IA.—Continued.			
	DISBURSEMENTS OF	FISHERY OVERSEER	s. ]	İ	
	For 12 months' disburser		1877	145 95	
J. T. N. Sellon William Anderson	do do	do do		12 <b>6</b> 47 83 00	
Enos Gardner	do	go	:::	170 50	
J. E. Starr	do	do	i	131 00	
John Fitzgerall	ĝο	do	•••}	76 04	
John Cameron	do	do		71 98	
Francis Quinan	do do	do	•••}	66 25	
J. O'Brien	do	do do	•••}	63 00   57 70	
M. A. Ross	do	do	:::	54 00	
Donald McRae	do	do		50 65	
Alex. McDonald	do	do		50 00	
James A. Tory	фo	do		48 26	
James H. Morehouse	do	ďο		47 00	
E. H. BallamGeorge Redden	do do	do	•••	45 75	
James King	do	do do		45 00 44 00	
e'eter S Burnham	do	do	:::	42 50	
J. A. Hatfield	do	do		40 75	
David Marshall	do	do		41 30	
J. W. Burke	ďο	do	•••	40 50	
Henry S. Jost	do	do	•••	40 00	
John McDaniel Yorke Barrington	do do	do do	4	39 85 39 00	
J. W. Davidson	do	do		38 65	
Peter Coady	do	do	••• ]	38 50	
John McDonald	фo	do		37 50	
A. W. McDougald	₫ο	do	•••	37 12	
A. Bishop	do do	do	•••	34 55	
Duncan CameronL. A. Melançon	do	do do	•••	32 05 j 32 00 j	
Hugh Gillis	do	do		25 00	
James Bonyman	d●	do		20 00	
Isaac J. Hingley	ďο	do		16 75	
Wm Blair	фо	do	•••	8 75	
H. E. Payson	do	do	••••	6 75	
R. J. Pollock	do	do	··· /	5 75	1,993 82
			1	1	2,000
W. H. Wylde	13 months' salary as	Inspector of Fisheri	es	1,486 29	
Receiver-General	Superannuation tax	Di W. H. Wylde's s	alary	28 00	
W. H Rogers	13 months' salary as Superannuation tax	on W H Romer's se	lary	849 30	
Donald Miller	Night watchman on	River Philip	121 y	20 00 90 00	
W. H. Wylde	12 months' disbuisen	ients as Inspector of	Fish-		
W. H. Rogers W. F. Whitcher	12 months' disbursem Travelling expenses	as Commissioner of	cer Fish-	300 00   700 00	4
F Pomens	Poord of Caradia	Contest Diagram		100 00	
F. Romans	Board of Guardians,	Backville River		31 72	
J. W. DeWolf	Cases for papersdo	**************	*****	10 00 6 00	
R. Brauder	Mounting maps	******************		3 00 1	
Andrew King	Horse hire	***** 144001 004.07 004000	*******	87 50	
				1	

To whom puid.	Servi	ce.	Amount.	Total.
	Brought fo	orward	\$ cts.	\$ ets. 11,538 :1
	NOVA SCOTIA	.—Continued.	1	
	Disbursements, E	rc.—Continued.	i	
C. Neal	Building fish-pass at S	n Recorderpringville	5 10 2 50 20 00 15 00	
•				3,754 41
		; 1	1.	15,292 82
	NEW BRU!	NSWICK.	İ	
	SALARISS OF FISHERY OVI	ERSEERS AND WARDENS.	1	
	County of	Albert.		
Winthrop Akerley Wallace Taylor C. McLatchey J. C. Kinne B. Oliver	do do	30th June, 1878dododo dodo do do do do do do do dodo	100 00 40 00 40 00 40 00 40 00	
Jacob Beck		do	30 00	290 00
	a	a 1.		200 00
	County of (		100.00	
Hugh Harrison	do do	dodo do	100 00 30 00 30 00 30 00 30 00	220 00
	County of C	Tharlotte.		
W. B. McLaughlan Leonard Best. James Brown J. M. Lord B. L. Cunningham Samuel Dick Robert Dixon James Russell Andrew Gilmour. Edward Carroll J. Thompson J. Catharan Patrick Curran	do do do do do do 6 do	do	240 00 100 00 100 00 50 00 40 00 30 00 30 00 30 00 30 00 30 00 30 00 50 00 60 00	820 00
	County of G	loucester.		
James Hickson	For 12 months' salary, to 3 do do do do	dodo do do do do do do do do do do do do d	250 00 1 100 00   50 00   50 00   40 00	1.000.00
	Carried fo 389			<b>1,330</b> 00

To whom paid.	Se	ervice.	Amount.	Total.
	Broug	nt forward	\$ cts.	\$ cts 1,330 00
	NEW BRUNS	WICK.—Continued.		•
	Salaries, i	arc.—Continued.		
		cester.—Continued.		
Sustinien Savoy	•		30 00	
John L. Veno	do	do	30 00	
Miles Dempsey Timothy Coughlan	do do	do do	30 00	
William Rogers	do	do	25 00	
John Calnan, jun Adolphe Haché	do 9 do	do	00.50	
H. A. Sormany	3 do	do	1 7 70	
				690 00
	Count	y of Kent.		
Charles Cormier	For 12 months' salary,	to 30th June, 1878	100 00	
J. McD. Sutherland Lazare Guimon	do do	do	75 00	
Nicholas Muzzeroll		do	50 00	
F. B. Legaré		do	30 00	
James Harnett	do do	do do	30 00	
				<b>390 0</b> 0
*	•	of Kings.		
Samuel Gosline	For 12 months' salary		100 00	
N. H.·DeVeber S. F. Ryan	do do	do do	50 00	
S. Gamblain	do	do	30 00	210 00
	County of	Northumberland.		210 00
John Hogan	• -		400 00	
william wyse	do	do	200 00	
William Cushman N. B. T. Underhill	do do	do do	160 00	
James Russell	do	3	150 00	
Amos Perley	do do	do do	100 00	
John Williston	do	do	100 00	
Prudent Robichaux	do	do	100 00	
William Blake	do do	do do	100 00	
Thomas Taylor		do		
John Stymast John Holmes	do ૧૦	do	50 00	
Aaron Hovey	фo	<u>م</u> و	30 00	
George Bryenton Patrick Bergin	do do	do	30 00	
Thomas Smith	do	do	30 00	
Patrick Gillis Denis Hogan	do do	do	30 00	
Thomas McKenzie Henry Oldfield	do	do	30 00	•
	do	<b>d</b> o	30 00	

To whom paid.		Service.		Amount.	Total.
	:	Brought forward		\$ cts.	\$ cts 2,620 00
	NEW	BRUNSWICK.—Con	tinued.		·
	1	LARIES, ETC Continu	_		
	1	Northumberland.—C		İ	
Fig. 11 M.D. (am. 13	1			30 00	
Findlay McDairmaid N. Morehouse J. T. Coughlan J. A. Somers Michael Donavan John Doyle P. Russell	do do do do do 14 do	salary, to 30th June do do do do do		30 00 30 00 30 00 30 00 18 00 35 00 7 50	2,190 50
		County of Queens.			-,
Isaiah Langan	T 10		1070	30 00	
John Secord	do do do do do do do	do do do do do do do do do do do do do d		30 00 30 00 30 00 30 00 25 00 25 00 25 00 5 00	
R. P. Yeoman. Hiram Starkey	2 do	do do		5 00 5 00	240 00
		ounty of Restigouche.			240 00
W			į	100 00	
E. FergusonA. McPherson, junJ. McMillanDugald Carmichael	do do do	do do do do	*******	25 00 25 00 25 00	187 00
					175 00
		County of Sunbury.			
G. W. Hoben	For 12 months'	salary to 30th June, 1	1878		190 00
		County of St. John.		ļ	
Joseph O'Brien William Skillen		salary to 30th June, 1	.878	150 00 100 00	250 00
		County of Victoria.	ļ		
Charles McCluskey	For 12 months' do do do do do do do do	salary to 30th June, 1 do do do do do do do		109 00 30 00 30 00 30 00 30 00 30 00 30 00	280 00
			1		200 00

To whom paid.	s	ervice		Amount.	Total.
	Broug	ht forward		\$ cts	\$ cts 5,855 50
	NEW BRUNS	WICK Contin	ued.		i
	SALARIES,	ETC.—Continued.			
	į –	f Westmoreland.			
IF D Decem	1		70	100.00	
W. B. Deacon Hugh Davidson		to 30th June, 18	8	100 00 100 00	{
D. T. Cormier	do	do		60 00	260 00
	Coum	ty of York.			
. O 1 11		• •		** **	
Villiam Brown	For 12 months' salary	to 30th June, 187 do	78	60 00 60 00	
Alex. Moir	do	do		30 00	150.00
			1		150 00
	DISBURSEMENTS O		i		
ames Hickson	For 12 months' disbur	sements to 31st	December,	7.7.40	!
ohn Hogan	1877 do	do		157 46 134 42	
William Wyse	do	do	(****	82 37	1
Samuel Gosline	do	do	•••••	78 76	1.
B. L. Cunningham	do do	do do	**********	77 50 71 75	1
ames Russell	do	do		66 70	ţ
ohn Williston	do	ďο		59 00	i
Patrick Curran  McD. Sutherland	do do	do do	••••••	56 00 55 25	
oseph O'Brien		do		54 09	1
W. B. McLaughlin	do do	do	********	50 00	
homas Taylor		фо		48 45	i
W. Akerley Dharles McCluskey	do do	do do	•••••	47 19 43 75	
lugh Davidson	do	do	••••••	43 00	1
V. B. T. Underbill		do	******	39 75	1
samuel Freeze	do	do		38 95	}
ames Brown	do do	do do		37 50 34 00	1
3. W. Hoben	do	do	*****	33 66	t
ames M. Lord	do	ĝο		31 00	
Hugh Harrison		do		20 75	}
Charles Cormier	i do I do	do do	******	30 00 30 00	
Prudent Robichaux	do	đo		30 00	1
Arros Perley	ďο	do		80 00	
G. Ferguson	do	do	••• •••••	26 50 26 00	
saac T. Hetherington	do do	ao do		20 00 22 00	}
William Brown	do	do	*********	18 95	1.
Justinien Savoy		do	•••	18 00	<b>†</b>
William Blake W. E. Skillen	do do	do do	•••	15 00 14 00	1
Kenneth Cameron	do	do		14 00	1.
. McDairmaid	l do	do		13 50	i
John Stymast	do	do	••• ••••	12 25	1
Hugh Miller	l do	do		12 00	1

To whom paid.	Se	rvice.		Amount.	Total.
				\$ cts.	\$ cts.
		t forward	í	1,683 41	6,265 50
	_	VICK.—Continue	.		
Total Tracks		, ETC.—Continue		11 60	
Juste Haché	do do	do do	•	9 00 4 00	
J. W. Taylor	do	do		3 60	1,711 61
W. H. Venning	For 12 months' calary a	: Inchestor of Fig	heries	1,371 96	2, 02
Receiver General	Superannuation tax 12 months' salary	con W. H. Venni	ng's alary	28 00	
Receiver General	Fisheries Superannuation tax			394 92 5 00	
W. H. Venning	12 months' disbut Fisheries	sements as In	spector of	382 31	
C. R. Venning Lordly, Howe & Co	Arrears of salary to Office furniture to	30th June, 1877, replace that de	stroyed by	325 42	
G. F. Simonson	Rent of office			101 60 200 00	
C. G. Berryman Bowes, Campbell & Ellis	Hardware fittings f	or office		14 55 19 58	
R. P. & W. F. Starr J. L. McCoskery	Coal	······		30 99 19 75	
F. G. Loggie	Maps			3 25 20 00	
J. L. McCoskery F. Robidoux	do Advertising in Mon	iteur Acadien		10 00 15 66	
D. G. Smith	do St.	Lawrence Advance		1 60 2 00	
Thomas Mack	Freight		 1		2,949 00
		Total			10,926 11
	<b>1</b> <b>1</b>		Ì	ĺ	
	DDINGE ED	WARD ISLAND	,		
	SALARIES OF FISHERY		i		
		y of Kings.			
Martin MacInnis	f		] 3. <b></b>	150 00	
John Crane	do do	do do		30 00 30 00	
John McGuire	do	фo		30 00	
James McAuley	do	do		30 00 30 00 1	
Patrick McInnis	do do	ქა <b>ქი</b>		30 00	
Wm. R. Dingwell John Brien	do	do	•••	30 00	
Thomas Clay	do	do		30 00 30 00	
D. D. Campbell	do	do do		30 00	
Andrew Whelan		go		35 00	
John Fisher		do		4 17	489 17
	i	d forward	1		489 17

To whom paid.	Ser	vice.	!	Amount.	Total.
	Brought	forward	•	\$ cts	\$ ct
	PRINCE EDWARD	ISLAND.—Co	ontinued,		1
	Salaries, et	c.—Continued.			
	County	of Prince.	j		
John Clark	For 12 months' salary to	30th June, 187	8	150 00	ì
James T. Reid		do		30 00 30 00	į
James Ramsay Hugh McIntosh		do		30 00	1
Peter H. Perry		do		30 00	i
Abraham Wall	do	do		30 00	}
Patrick McBride		фo		30 00	ł
William Burns		do		30 00	1
Nathl. McArthur	do do	đo đo		30 00 30 00	!
Lawrence r nee	u u	uo			420 0
	County of	of Queen's.	ĺ		
saac Thompson	For 12 months' salary, t	o 30th June, 1	878	150 00	
Ewen Clark	18 do	do		45 00	1
Michael Ready	12 do	do	*****	30 00	}
James ClowLionel Garnim	do do	do do		30 00 30 00	ŀ
William Whitehead	do	do		30 00	i
Thomas Murphy	do	do		30 00	1
Roderick Morrison	do	do		30 00	İ
Alex. McRae	do	do		30 00	1
David Ruttray	do	ďο		30 00	
John McMillan	do	do		30 00	465 0
	DISBURSEMENTS OF	FISHERY OVER	SEERS.		
Martin MacInnis	For 12 months' disbursen	ents, to 31st I	ec., 1877	150 00	
John Clark	do	do		100 00	1
saac Thompson	do	do		78 55	1
Patrick McInnis	ďο	do	•••	30 00	!
Patrick McBride	do Disbursements in cor	do naction with n	nagaantiana	15 00	1
James Ramsay	for violation of F			84 82	1
William Mitchell	Postage			4 00	
			-		462 3
	To	otal		********	1,836 5
	<b>Bri</b> tish	Columbia.	İ		
A. C. Anderson	For 12 months' salary as	Inspector of F	isheries, to		
	30th June, 1877.	· · · · · · · · · · · · · · · · · · ·	····· ································	600 00	
do	Disbursements as Ins	spector of Fish	eries	90 00	690 9
	Man	itoba.	i		

To whom paid.	Service.	Amount	Total.
	FISH-BREEDING.	\$ cts.	\$ cts
Samuel Wilmot	For 12 months' salary as Fishery Officer in charge of the several Fish Breeding Establish-		
Receiver-General	ments in the Dominon, to 30th June, 1878  Superanguation tax on S. Wilmot's salary	1,960 00 40 00	
Samuel Wilmot		775 86	
	Newcastle Establishment, Onturio.		2,775 86
Wm. Parker	For 9 months' wages as Caretaker, to 31st December, 1877	375 00	
C. E Lowe	9 months' wages as Assistant Caretaker, to		
Wm Dankon	31st December, 1877	300 00 145 85	
Wm. Parker C. E. Lowe	Disbursements as Caretaker do Assistant Caretaker	59 92	
John Otten	Labour at Fish-Breeding Establishment	31 50	
John Kelsey	do do	23 00 9 00	
Patrick Nugent		15 00	
Thomas Goursoll	Labour at dam and raceway	63 12	
Richard Spencer	do do	55 32 1 115 00	
Alex. Parker	Fishing trap-nets, Lake Ontariodo do	15 00	
Alfred Bright	Picking ova	22 80	
D. J. Hinman	Collecting ova	24 25	
M. Begg	Guardian, Wilmot's Creek	30 00 49 50	
James Speen	Cedar posts, timber, etc	109 00	
D. Cornstock	Lumber	22 26	
W. McSpadden	do	3 81 1 73 20	
J. R. Barefeldt	Coal oil, hardware	. 38 35	
R. Fothergill	do	17 09	
S. Wilmot H. Soper.	Rental of premises, Fish-breeding, Establishment Rent of water privileges, Barber's Creek	250 00 5 00	
Thomas Douglas	Express charges on California salmon, etc	186 82	
Montreal Telegraph Co	Telegrams	48 02	
Dominion do	(I)	29 15   13 84	
A. F. Wallbridge Thomas Reno	Baskets	2 50	
S. Manning	Rarrela	1 60	
Wm. Alexander	Cotton batting	2 65 9 83	
James Wright	TinwareFish cans	24 50	
James Wright	Galvanized iron tank	25 69	
wm. Hooper	Masonry	10 49   7 70	
Bomanville Co Forest and Stream News-	Furniture		
paper	Subscription	5 00   4 70	
Professor Baird	Expenses on California salmon ova	23 85	
A. A. Grantly	Taxidermy	16 00	
Alex. Parker	Ina	16 00	
John Wilmot	Fish eyes	5 25 40 36	
J. H. Roffe Wm. Sands	Riockamith's Work	28 89	
Land and Water	Namonanar guhacrintian	18 25 6 25	
W.R. Clinnie	Printing California salmon ova	6 25 23 25	
L. Stone	Uaiifornia saimon ova		2,403 56

To whom paid.	Service.	Amount.	Total.
	Brought forward	\$ cts.	\$ ct 5,179 4
	FISH-BREFDING.—Continued.		-,
	Sandwich Establishment, Ontario.	į	
ames Nevin	For 15 months' wages as Caretaker, to 31st Decem-	i	
Lemonde	ber, 1877	700 00	
J. Lemonde		274 50   54 00	
ames Nevin		223 35	
Wm. Vandarame	Picking ova	6 40	
Vm. Shields		32 00	
Alfred Bondy Jouis Girds	do	6 00	
Albert Roberts		11 20	
red. Niel	do	12 00	
I. Johnstone	do	20 25	
Irsène Joli	do	24 80	
lbert Youngblood bharles Adams	do	10 50 21 20	
. Légaré	Collecting ova	13 00	
eorge Freeman	do	21 25	
Vm. Hill	Labour at Fish-Breeding Establishment	73 00	
. Masters	do do	28 00	
udèt & Werry	do do	45 00   78 47	
erreau & Ouellette	Lumber	34 70	
obert Adamson	do	5 00	
homas Fox	do	2 12	
askin & Son	Spawning fish	36 00 82 00	
homas C. Sutton	Sponges, &c	12 40	
. Hotte	Horse hire	14 50	
etroit Metal Co	Iron tubing.	27 89	
ames Nevin	Paraffine varnish	6 50	
ry Dock Co homas Wilson	Diver's work putting down pipes.	20 87 1	
. Lemonde	Water for engine	4 30	
eorge Geeksford	Repairs to machinery	3 50	
Boismier.	do do	13 00	
muel Bouffard m. Wright		96 25	
Purser & Son	Sawing wood	18 40   193 02	
equenot & Co	Hardware	29 20	
mes Nevin	Oil	20 94	
m. Hill	Carrying ova	15 50	
Moffat	Log for pipe	11 12	
iomas Dowe.	Varnish Freight	2 50 2 17	
aniel Lemonde	Boat hire	20 00	
uschesne & Co	Patent taps.	78 43	
Tuiser & Son	Oil clothes	21 22	
E. Edwards	Rubber tubing.	10 06	
elegraph Co	Telegrams	2 00	
obert Adamson	Stove fixtures	3 45   8 00	
T. McLeod	Postage stamps	9 75	
mes McKee	Rent of grounds	40 00	
. Petrimoulx	Boarding men	12 50	
	. <b> -</b>		2,546 2I

To whom paid.	Service.	Amount.	Total.
	Brought forward	\$ cts.	\$ cts. 7,725 63
	FISH-BREEDING.—Continued.	ļ	
	Tadoussac Establishment, Quebec.		
Pierre Plourde	For twelve months' wages as Caretaker, to 31st	Ì	
_	March, 1877	308 00   13 90	
do Faustin Boivin	Wages as Guardian, Anse St. Jean Reception		
Henry Plourde	House Labour at Fish-house	45 25 { 36 45 }	
D. McLaren.	1	25 00	
John Fortin	do do	6 00	
Florand Pauliana		1 40 0 50	
Flamand Bouliane Thomas Therrien	1	0 20	
Alex. Tremblay	1	0 20	
Mary Tremblay	do do	0 80	
Emma Plourde		1 20 6 00	
Denise Tremblay Emélie Lavoie	do do do do do	8 00	
Bell Manning		18 00	
Sophie Tremblay	do do	0 40	
A Fortier	do do	11 75   4 65	
Grégoire Boulliane Theo. Charron		1 35	
Frs. Boulliane	1 7 1	11 40	
David Therrien	do do	8 40	
Joseph Morin		6 30 12 94	
Luc Mallart Thos. Maltais	1 7 7	13 00	
Roger Therrien	do do	5 93	
L. Dufour	do distributing salmon fry	7 20 1	
L. D. Pednault	do dodo	13 86 10 50	
Thos. Therrien Philibert Ottis		6 00	
Joseph Boulliane	,	2 40	
Donald McLaren	do do	14 54	
L. Lévesque	do Caretakers' house Tending Petite Ile Fishery	2 00	
Narcisse Simard		2 10	
Jules Boulliane	do l'Anse aux Pilotes Fishery	1 13	
Richard Morin	do do	75 18 1 00	
Cosac Poitras	do Point Rouge Fishery	65 33	
Simon Godreau Bell Manning		36 00	
Alex. Tremblay	do	10 67	
Frs. Boulliane	do	1 80 1 75 00 1	
Maurice Dumesnil	Boat hire	3 00	
John Gauthier Fred. Dufour	Expenses transporting fry	32 00	
Joseph Radford	do	15 50	
Joseph Boucher	do	4 90   16 00	
Octave Trembiay	Towing boats with saimon iry	10 00	
St. Lawrence Steamboat	Dansa mag freight Arc	77 84	
Walter Rae	Freight and express charges on parreis	7 50	
Price Bros	Lumber, hardware, &c	376 45   17 25	
F. Bourgeoin	doShingles	10 40	
Joseph Radford	]		
	Carried forward	1,452 57	7,725 63

To whom paid.	Service.	Amount.	Total.
	Brought forward	\$ c <sup>†</sup> s. 1,452 57	\$ cts. 7,725 63
	FISH-BREEDING,—Continued.		
		!	
	Tadoussac Establishment, Quebec.—Continued.		
	For Shingles		
Nicholas Gauthier	do Carpenters' work		
Fabien Côté	do		
Eurelien Lavoie	do		
Jules Tremblay	Blacksmiths' workdo	7 48	
Joseph Bélanger	Wages and board as Special Guardian		
Joseph Dion	do do		
Laurent Lévesque		7 50	
E. Lacroix Flavien Tremblay	do do Flat for Petite Ile Fishery		
Wm. Parker	Travelling disbursements to Newcastle		
F. Seiffert	Thermomete:	1 75	
Joseph Perron	Repairs		
O. Boulliane	Supplies	4 80 1 80	
J. Jourdain	Seining trout, Ste. Marguerite	10 00	
Joseph Radford	Paid for labor.	5 37	
W. H. Laroche	Water casks and tubs		
Thomas Desbiens	Rent of house for Bergeronnes Guardian		
Pierre Marquis	Procuring trout ova	2 00	
Auguste Goudreau	Cartage		
Joseph Boivin	Hardware do		
Damien Tremblay	Cleaning Fish-House		
Cain Tremblay	Firewood for Bergeronnes Guardian	0 70	
Joseph Radford	Postages and telegrams		
John Brown John Wilmot	Survey and plan, Tadoussac Establishment		
Audet & Robitaille	Rope, &c	136 76	
Joseph Radford	Allowance for conducting Fish-breeding Es-		
	tablishment from 1st July, 1877, to 30th		
J. M. Tardivel	June, 1878 Glass	400 00	
T. Parent	Lime	2 60	
P. Stephens	Travelling expenses as Special Guardian		
N. Fitzhenry F. X. Belanger	Paints, oils, &cPreserving specimen of fish	61 92 1	
P. Gauvreau & Bros	Codlines		
D. E. Price	Supplying parent salmon for manipulation	271 50	07
	Gaspé Basin Establishment, Quebec.		3,060 93
P. Vibert	For 15 months' salary as Fishery Officer in charge	375 00	
do'	Disbursements in connection with Fish-breed-	3.3 00	
	ing Establishment	183 99	
John Davis		349 22	
F. R. Coffin	Setting and tending salmon-nets do do		
J. B. Coffin	do do		
Benjamin Annett	do do	22 10	
Stanislas Bond	do dodo	23 10 89 80	
S. Davis	do do		

F. Annett	Brought forward	\$ cts.	\$ cts 10,786 56
John Coffin	Gaspé Basin Establishment, Quebec.—Continued.		
John Coffin			
John Coffin	For supplying parent salmon.		
Robert Coffin	Distributing salmon-fry	8 75 32 25	
Joseph Cass	do do	47 25	
Peter Miller Alfred Davis	do	45 75	
Alfred Davis	do	34 00	
	do	34 00 63 00	
W. C. Davis	do	52 50	
James Coffin	do	6 00	
James Slaffin	Assistance	27 70	
Alfred Davis	do	18 00 1	
J. S. Davis	do	39 00   21 50	
J. E. Collas	Paint, oil, rope, hardware	82 34	
J. Leboutillier & Co	Salmon twine, hardware, &c.	44 67	
J. Eden & Son	Nets, rope, freight, &c	19 24	
James Beattie	Hardware.	2 30	
Wm. Carter	Grapnels	4 00 6 72	
Hall, Kaye & Co	Perforated zinc	18 07	
Wm. Shanley	Making and repairing nets	25 50	
John Ross	Salmon net	6 00	
J. S. Davis	Building dam	132 00	
M. A. Montgomery	Views of Fish-breeding Establishment	8 00	
Joseph N. Lavoie	Carting salmon ova.	1 45   27 50	
Wm. Howe	Horse-hire	4 40	
Joseph Cass	Carpenter's work	11 10	
Frs. LeBrun	Casks	0 85	
Joseph Eden	Coal	13 50	2,069 05
	Restigouche Establishment, Quebec.	İ	
	For 12 months' salary as Fishery Officer in charge.  Disbursements in connection with distribution	300 00	
do	of salmon fry. &c	262 40	
Joseph Beaulieu	Wages as Caretaker.	320 00	
James McMillan	Distributing fry	4 00   28 00	
Wm. Robertson	do	24 00	
Wm. Robertson	Catching salmon	65 00	
James Miles	do	39 00	
A. Mowat	do	20 00	
John Hearn	do	30 00   48 00	
John Mowat	Hire of horses and scow	34 50	
Thomas Copeland	do	25 00	
James Lee	Cons	16 00	
Smelds Connors	Sockets for nets	3 00	
D. Frazer	Horse hire	20 00   188 00	
Mowat	Building retaining dam at Indian house	109 97	
American Net&TwineCo. A. Asker	Store nines	4 00	
ohn Ferguson	Boat	15 00	1,555 87
1	i <sup>-</sup>		

To whom paid.	Service.	Amount.	Total.
	Brought forward	\$ cis.	\$ cts 14,411 48
			11,111 10
	FISH-BREEDING.—Continued.	i	
	Bedford Basin Establishment, Nova Scotia.		
A. B. Wilmot	For 13 months' salary as Officer in charge	866 58	
do F. G. Tolson		691 53 j	
	Establishment	345 00	
George Reeves	Labour at Bedford Fish-Breeding Establish-	45 00	
John Tolson	do do	16 00	
S. Hefler J. H. Anderson		5 00   36 85	
John Eastwood		14 00	
Alex. Patrick	. Catching and guarding salmon	80 00	
K. Fillmore		125 10	
Anderson & Bayers A. Tolson		190 00   145 31	
Wm. Moore.		20 50	
r. Walsh	Glassware, paint, oil, &c	38 14	
Smith & Co		70 04	
V. H. Smith V. Welsh		12 00 13 40	
Black Bros. & Co		3 75	
Theakston & Angevin		39 19	
. J. Hingley		8 38	
I. Hamilton		6 98   19 42	
ames Dempster		23 00	
W. Roche, jun		54 00	
. Mitchell		6 00	
R. Anderson		12 00	
xford Wooden Co		9 68	
3. W. Fultz	Making boxes	33 00	
V. L. Lowell & Co	Paraffine varnish	8 82	
A. B. Wilmot		1 83	
I. M. Customs V. Tolson		1 <b>8</b> 5 (	
F. Miller		6 00	
Mitchell	Hauling gravel	5 00	
. E. Wilson		11 15	
oseph Eastwood L. B. Wilmot	, g	10 00 1 28 00 1	
Vm. Moore		24 00	
Vood Thompson	Rent of land at River Philip	12 00	
leo. A. Kent & Co	Rubber boots	13 00	
homes Conrad L. H. Cogswell		25 00	
Vestern Union Tel. Co	Telegrams	1 50 \ 4 45	
. P. Connolly	Stationery	5 40	
Conaid & Co	Connection hose	3 55	
A. B. Wilmot	Nursing tanks, &c	50 00	
). R. Ingles . E. Wilson	Tubs and fittings	29 25 1 85	
B. Wilmot	Repairs and improvements to Establish-	1 65	
	ment	200 00	
	1	i	3,400 00
•	Carried forward	ŀ	17,811 48
	400	********	1.,011

To whom paid.	Service.	Amount.	Total.
	Brought forward	\$ ets.	\$ cts 17,811 48
	FISH-BREEDING.—Continued.		
	Miramichi Establishment, New Brunswick.		
do John Hogan D. T. Johnston John Hogan Michael Jordan,	do do do do do Catching salmon do Go Go Go Go Go Go Go Go Go Go Go Go Go	433 29 121 00 148 00 6 00 273 43 9 80 3 00 3 00 6 00 2 00 5 00 13 00 31 00 10 00 36 00 25 75 4 20 6 75 6 50 8 00 1 95	
	michi Fish-Breeding Establishment	226 55	1,468 22
G. B. Burland	For Printing description and views of Newcastle		
A. A. Campbell	Fish-Breeding Establishment Lease of fishing privileges, Campbell's Bay To pay guardians, à Mars River Labour and materials repairing fishway, Matane River Collecting salmon trout ova Freight expenses placing live bass in Campbell's Bay Building fishway, Saugeen River	140 00 60 00 198 58 42 39 30 00 52 00 75 00	
Edwin Turner  B. K. Claire  J. Fitzgerald  H. S. Jost  D. Rosa	do Credit River	40 00 1 13 100 00 50 00 20 00	809 10
	FISHERIES PROTECTION STEAMER "LADY HEAD."	ŀ	20,088 80
Napoleon Lavoiedo  do  Pay-list,	For 12 months' salary as Commander	1,400 00 1,448 43 4,353 11	

To whom paid.	Service.	Amount.	Total.
	Broughtiforward	\$ cts. 7,201 54	\$ cts.
	FISHERIES PROTECTION STEAMER "LADY HEAD."—Continued.	İ	
Louis Bourget	Provisions	1,902 21	
G. Bouchard	do	830 62	
P. Poitras F. X. Grenier	do	710 90   614 37	
Joseph Eden	do	256 35	
L. Arel	do	235 42	
E. D. Dion	do	54 50	
Toussaint & Frères	do Fish	2 80   17 80	
L. Marois	do Vegetables	111 65	
L. Arel	do Meat	533 38	
J. A. Eden.	do do	34 23	
John Davidson D. Langlois	do Breaddo Milk.	68 40 3 47	
Taché & Co	do Preserved meats,	58 56	
G. T. Philips		580 37	
J. M. Tardivel.	do	212 20	
J. Routier.	dodo	58 13 49 5 <b>5</b>	
Joseph Eden	do	15 85	
H. Robillard	do	2 00	
J. D. Marsan	do	68 13	
G. H. Gore	Cementing	2 50   112 97	
Intercolonial Coal Co	Coal	541 80	
F. W. Henshaw	do	366 00	
Wm. Neilson	do	277 20	
A. Fraser & Co	dodo	1,105 50	
Vale Coal Co	dodo	955 80 174 80	
Audet & Robitaille	Ship's stores	758 95	
A. J. Shaw & Co	Powder, rubber, &c	320 68	
S. Bédard	Kitchen utensils, pipes, &c	169 42	
J. Mulholland	Plugs Side-lights	2 26 8 00	
F. O. Vallerand	Lamps, chimneys	44 60	*
T. Parent	Barrels	13 50	
J. Boivin.	Paint, brushes, iron	30 50	
Archer & Co	do	7 62 6 25	
Whitehead & Turner	Tube cleaner	10 00	
Vien, Sorrell & Co	Towage	30 00	
T. Routhier	Tubs	10 75	
J. Boivin.	Blocks	9 90	
J. M. Dechène	Uniforms for crew	202 38	
do	Blankets, &c	243 95	
Wm. Tait.	Board	30 00	
Denning & Webster	Cotton wastedo	10 20 4 50	
F. J. Thomas.	Glassware	53 30	
Duquet & Co	Clock and barometer	25 50	
C. E. Holiwell	Stationery	102 20	
Pisher & Blouin	do	3 70	
John Baile	Moorage	3 00 18 00	
		-5 00	

To whom paid.	Service.	Amount.	Total.
	Brought forward  FISHERIES PROTECTION STEAMER "LADY HEAD."—Concluded.	\$ cts. 19,280 66	\$ cts.
Joseph Vandry V. Relanger & Co L. Bourget W. H. Laroque J. W. Marmen P. Rouillard	Olive oil do	43 25	
	Total		19,967 <b>1</b>

#### RECAPITULATION.

Fisheries	Ontario	\$12,723	88
do	Quebec	13,662	55
do	Nova Scotia	15,292	82
do	New Brunswick	10,926	11
do	Prince Edward Island	1,836	54
do	British Columbia	690	00
do	Manitoba	200	00
Fish-Bree	ding	20,088	80
	Protection Steamer.	19,967	11
	Total	\$95,387	81

#### APPENDIX No. 41.

STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, during the year 1878.

	\$ cts.	\$ ct
Percentage on contributions to Pilots.	7,644 07 7,558 89	
Fines	20 00	
Interest on investments	3,276 00	
Interest—Savings Bank	307 20	
		18,806_1
EXPENDITURES.		
Pensions	13,914 61	
Relief	159 99	
Salaries	600 00	
General expenses  Deposits at the Savings Bank	12 00   3,920 68	
Balance on hand.	198 88	
		18,806 1
	<u> </u>	
PILOTS RELIEVED BY THE FUND.	İ	
an Andat did Lanainta	45 22	
an Audet dit Lapointean Frs. Lamarree.	45 33 45 33	
m. Russell.	53 33	
ouard Antil	16 00	
[		159 9
PENSIONERS AT THE EXPENSE OF THE FUND.	i i	
OUNT PAID TO EACH DURING THE YEAR FROM 18T NOVEMBER, 1877, TO 18T NOVEMBER, 1878.		
		,
PILOTS.		
Ten Pilots at \$160 each.		
al Blouin	160 00	
Bte. Dion	160 00	
arles Chouinard	160 00	
eph Raymond	160 00	
toine Labrèque (died 12th February, 1878)	45 33 160 00	
Joseph Pouliot	160 00	
Bte. Bourget	160 00	
exis Delisle	160 00	
al Chamberland	160 00	1,485 3
× †		1,400 3

STATEMENT of Moneys received and disbursed by the Corporations of Pilots for the Decayed Pilot Fund of Quebec, etc.—Continued.

101 the Becayed That Fund of Quebec, etc.—C		
Brought forward	\$ cts.	\$ cts
PENSIONERS AT THE EXPENSE OF THE FUND.—Continued.		.,100 00
PILOTS.—Continued.		
Eleven Pilots at \$140 each.		
Féréol Bourget	35 00 140 00 140 00	
oseph St. Laurent.  F. K. Turgeon.  F. X. Lachance  Seorge Laplante (pension from 10th April, 1878)  Jlovis Antil (pension from 2nd April, 1878).  Jean Frs. Lamarre (pension from 8th August, 1878)	140 00 1 140 00 1 77 77   56 38	
		1,320 95
Three Pilots at \$120 each.		
Isaac Lapointe (died 19th April, 1878)	56 33 120 00 120 00	296 33
Twenty-nine Pilots at \$96 Each.		
Antoine Boucher (died 30th May, 1878)	56 00 14 12	
Alex, Chamberland (died 24th December, 1878)	96 00	
Vital Charest	96 00 96 00	
'rs. Côté'rs. Curodeau	96 00 96 00	
harles Dion	96 00	
uillaume Fournier (on account)	48 00 96 00	
ierre Gourdeau	96 00	
oseph Lapointeean Lavoie	96 00 1	
ouis Lemieux	96 00	
X. Menardichel Morin	96 00 96 00	
rs. Nadeau	96 00	
ierre Pâquetrs. Pelletier	96 00 1 96 00 1	
abriel Plante	96 00	
and Pouliotntoine Roussel	96 00 ) 96 00	
lexis Roy	96 00	
Leon Roy	96 00   96 00	
d. Vai lantcourt	96 00	
harles Vézinaichel Vézina	96 00 96 00	
livier Vezina	96 00	0 614 14
ames Forbes (one at \$80)os. Denis dit Lapierre (one at \$40) on account	80 00 30 00	2,614 12
		110 00
Carried forward 405		5,826 <b>73</b>

# STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, etc.—Continued.

	Brought forward	\$ cts.	\$ ct 5,826 7
PENS	IONERS AT THE EXPENSE OF THE FUND,—Continued.	1	ŕ
	WIDOWS OF PILOTS.		
	Seventy-eight Widows at \$80 Each.		! }
a c		50.00	ĺ
	C. J. Adam		
	L. (A. A.) Asselin (died 20th March, 1878)		i
	Antoine Labrèque (from 13th February, 1878)	56 77	
	L. (M.L.) Asselin.		ļ
do	Frs. Baquet	80 00	!
	Grég. Bernier		l
do	Mag. Bouchard	80 00	
	Felix. Caron (on account)		i
	Ed. Chevalier		
	Firmin Couillard	80 00	
do	David Cinq-Mars	80 00	
do	Paul Larochelle (pension from 26th Nov., 1877)	74 44	ĺ
	Thomas Dick	80 00	l
	Paschal Dick	80 00	
do do	Jean Dion	80 00 80 00	
	Chrys. Dumes (died 20th June, 1878)	51 33	
do	Isaac Lapointe (died 3rd December, 1878)	49 77	
do	Joseph Dumas (died 17th May, 1878)	43 77	
do	Pierre Gourdeau (A.N.) pension from 26th June, 1878	27 77	
do	Thos. Dunford	80 00	
	Joseph Dussil	80 CO	
do do	Jean Gobeil		
	Louis Crépault	80 00	
do	Jean Pelletier (pension from 30th September, 1877		
do	Joseph Genest (died 8th September, 1878)	68 44	į
do	Denis Glynn (arrears)	20 00	
ďο	do (on account)	60 00	
	Pierre Gourdeau (A.F.)		
do do	J. E. Adam	80 00 80 00	
do	C. F. Koenig		•
do	Ovide Lachance		•
do	Fab. Langelier		}
do	Julien Langlois	80 00	
do	L. (E.D.) Langlois	80 00	
do	Pierre Langlois		
do do	Frs. Lapointe	80 00 80 00	
do	A. (L. M.) Lavoie		ł
do	Henri Lavoie	80 00	
	L. M. Lavoie		
	Firmin Lévesque		
	Jean Marcoux	80 00	
do do	Joseph Mercier	80 00 80 00	
do	Henri Noël	80 00	) I
do	Pierre Normand	80 00	
do	Bénoni Normand	80 00	
do	Thos. Connell	80 00	
ďο	Chas. Brown		
do	Alexis Ouellet	80 00	1
do do	Ant. Boucher (pension from 30th May, 1878)	33 33	
do do	Max. Caron	80 00 80 00	
do	David Petitgrew	80 00	i
		1 55 50	!

406

# STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, etc.—Continued.

Brought forward	\$ cts. 4,342 94	\$ cf 5,826 7
PENSIONERS AT THE EXPENSE OF THE FUND Continued.		,
Widows of Pidots.—Continued.		
Seventy-eight Widows at \$80 each.	l Í	
Vidow of Benj. Pineau	80 00	į
do Paul Pouliotdo J. M. Plante	80 00	<b>}</b>
do Amable Genest	80 00 80 00	
do Frs. Rioux		
do Pierre Curodeau	80 00	ļ
do Eusèbe Thivierge		
do Fred. Simpson		]
do John Simpsondo Joseph Simpson	80 00 80 00	
do George St. Amant	80 00	
do R. E. Simard	80 00	
do Pierre Ross	80 00	
do Robert Demers	80 00	
do Isaac Gourdeau	80 00	
do Joseph Lévesque	80 00	
do J. Bte. Carondo Amable Fournier	80 00 80 00	
do Pierre Laprise	80 00	
do Thos. Thivièrge	80 00	
		5,942 9
Twelve Widows at \$64 each.		
idow of Wm. Amyot	64 00	
do Paul Blouin	64 00	
do Frs. Boissinot	64 00	
do Célestin Côté	64 00	
do Frs. Desnoyers (died 29th May, 1878)	37 15	
do F. X. Lachance	64 00 64 00	
do P. P. Lachance	64 00	
do F. Leclerc (arrears)	16 00	
do do	64 00	
do Michel Pellatier	64 00	
do J. O'Reilly	64 00	
do A. Royer	64 00	757 15
Seven Widows at \$48 each.		
idow of J. Dandurand	48 00	
do André Keable	48 00	
de Guil. Morency	48 00	
do Mag. Rioux (on account)	36 00	
do Pierre Rouleau	48 00	
do J. B. Servantdo H. Verrault	48 00 1 48 00 1	
QO YEFFBUIL	46 00	324 00
Sixteen Widows at \$40 each.		
idow of Zacharie Blanchet	40 00	
do Malcolm Cavenagh (on account)	20 00	
do Fabien Caron	40 00	
do Mag. Côté	40 00	
do R. Uôté	40 00	
do Ant. Fortier	40 00 10 00	
, , , ,	<del></del> j.	
Carried forward	230 00	12,850 82

# STATEMENT of Moneos received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, etc.—Continued.

Brought forward	\$ cts.	\$ cts 12,850 82
)F THE FUND.—Concluded.	ł	
	[	
	1	
\$40 each.	1	
May, 1878)	22 11 40 00 40 00 40 00	
	40 00	
	40 00	
	10 00	
	40 00	500 70
PIT OTTS		588 78
1	18 11	
1 (arrears)	12 00	
1 (arrears)	20 00	
1	23 00	
1	21 00	
3	48 15	
	30 75	
	30 00	
(on account)	10 00	
2 do	20 00	475 01
		13,914 61
F_PENSIONS.	1,485 33 1,320 95 296 33 2,614 12 80 00 5,942 94 757 15 324 00 588 78	
	PILOTS.  1 (arrears)  1 (on account)  2 (arrears)  1 (arrears)  1 (arrears)  1 (on account)  2 do  F. PENSIONS.	Strought forward   230 00     OF THE FUND.—Concluded

STATEMENT of Moneys received and disbursed by the Corporation of Pilots for the Decayed Pilot Fund of Quebec, etc.—Concluded.

CREDIT.	\$	cts.	\$	cts
Receipts—Detail.				
Receipts—Detail.  Syndics of the Quebec Roads: 1 year's interest on \$22,800 to the 1st July, 1878  The City of Quebec: 1 year's interest on \$9,000, to the 1st July, 1878  Dominion of Canada: 1 year's interest on \$19,300, to the 1st Oct., 1878.  Estate, P. Boisseau: 1 year's interest on \$2,000  Savings Bank—Interests to 25th May, 1878  Fines: from Quebec Harbour Commissioners  Amount received from the Corporation of Pilots	1,158 120 307	00 00 00 00 20 00 59	18,806	16
DEBIT.  Pensions and Relief, &c., paid during the Season of 1878.  Relief	159 187 3,536 3,440 3,399 3,351 600 12 3,920 198	78 00 30 40 13 00 00 68	18,806	16
Oneys loaned	53,350 3,920 198 57,470 433	68 88 24	57,037	24

F. X. DION, Treasurer.

E. E.

TRINITY HOUSE,

Quebec, 31st December, 1878.

We, the undersigned, certify to having closely examined the books and accounts of the Decayed Pilot Fund of Quebec, and to having found them correct.

(Signed)

P. COUSIN,

Accountant.

ELZEAR GODBOUT, J. F. X. BERNIER, Auditors.

#### APPENDIX No. 42.

REPORT ON THE DECAYED PILOT FUND OF MONTREAL FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1878.

HARBOUR COMMISSIONERS OF MONTREAL, SECRETARY'S OFFICE, MONTREAL, 6th January, 1879.

SIR,—I have the honour to transmit herewith, for the information of the Honourable the Minister of Marine and Fisheries, statements of the receipts and disbursements of the "Decayed Pilot Fund" of this District, for the year ended 31st December, 1878, together with a statement showing the condition of the Fund at that date.

The amount to the credit of the Fund shows an increase of \$1,286.55 as compared with last year, although there has been a falling off in the poundage received of about

\$64, and two new pensioners have been placed on the list.

The following changes have occurred during the year, viz.: Pilot Eusebe Toupin, aged 53, died on the 5th April, and Pilot Leandre Mayrand, aged 55, died on the 1st September. In accordance with the new scale of pensions adopted last year, the Fund has been charged with the pensions for their widows at a yearly rate of \$75 and \$90, respectively.

There are twenty-five pensioners on the list at present, viz.: twenty-two women

and three men, and the total amount paid them for the year was \$2,147.70.

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

H. D. WHITNEY,
Assistant Secretary.

WM. SMITH, Esq., Deputy Minister of Marine, &c., Ottawa.  $\mathbf{C}_{\mathbf{R}}$ 

Fund.
1 Pilot
Decayed
with
in account
in
Treasurer,
Acting
WHITNEY,
Ü,
H.

1878.   Septimina   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pension   Pens
19.  11.  12.  13.  14.  15.  16.  17.  17.  18.  18.  18.  19.  19.  19.  10.  10.  10.  10.  10
1 By Paid Widow Olivier Abelle, 3 months' pension to 1st February.  1 do Zépherin Boudreau do do Thomas Dubord do do Hubert Lemai do Jos. Lacoursière do do Pierre Pagé do Pierre Pagé do Jos. Bouez do Divier Raymond do Gonera do Divier Raymond do Harbert Early Hamelin do Jos. Bouez do Divier Raymond do Harbert Early do Ancise Beisle do Marcise Boullie do Moise Biron do Alex'r Prottier do Moise Biron do Alex'r Prottier do Dayl Mathieu do Alex'r Prottier do Jos. Mathieu do Jos. Mathieu do Jos. Mathieu do Jos. Mathieu do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Jos. L. Dussereau do Rella Hamelin do Zépherin Boulcau do August Mathon do Zépherin Boulcau do Jos. L. Dussereau do Rella Hamelin do Sévère Belleisle do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise do Marcise Bouillié do Marcise Bouillié do Marcise Bouillié do Marcise do Marcise
19.  1 By Paid Widow Olivier Abelle, 3 months' per Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of t
19.  1 By Paid Widow Olivier Abelle, 3 month to lat Fallow Divisor Abelle, 3 month to large do Thomas Dubord do Thomas Dubord do Hubert Lemai do Dos. Lacoursière do Jos. Bouez do Jos. Bouez do Divier Raymond do Pierre Page do Pierre Page do Pierre Page do Jos. Bouez do Divier Raymond do Jos. Bouez Divier Raymond do Jos. Bouez Boullie do Narcuses Bouillie do Narcuses Bouillie do Alex'r Trottier do Bouez do David Mathieu do Bouez Markieu do Bouez Douis D. Bouillie do Jos. Mathieu do Bouez Mathieu do Jos. Mathieu do Jos. Mathieu do Jos. Lo Dusserau do Jos. Lo Dusserau do Jos. Lo Dusserau do Jos. Lacoursière do Hubert Lemai do Hubert Lemai do August Mathon do Pierre Pagé do August Mathon do Pierre Pagé do August Mathon do Pierre Pagé do Pierre Pagé do Pierre Pagé do Pierre Pagé do August Mathon do Pierre Pagé do Pierre Pagé do Pierre Pagé do Pierre Pagé do Pierre Pagé do August Mathon do Pierre Pagé do Pierre Pagé do August Mathon Balle Balleisle follow Divier Boullié do August Balleisle follow Divier Boullié do August Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Sevère Belleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier Boullié do Balleisle follow Divier B
19.  1 By Paid Widow Olivier Abelle, 3 m  10 do Zepherin Bondreau  10 do Thomas Dubord  10 do Hubert Lemai  10 do Hubert Lemai  10 do Pierre Page  10 do Pierre Page  10 do Pierre Page  10 do Pierre Page  10 do Pierre Page  10 do Pierre Page  10 do Pierre Page  10 do Pierre Page  10 do Narcisse Bouillie  10 do Narcisse Bouillie  10 do Narcisse Bouillie  10 do Narcisse Bouillie  10 do Alax'r Protiter  10 do Bavid Mathieu  10 do Bavid Mathieu  10 do Alax'r Protiter  10 do Bavid Mathieu  10 do Bavid Mathieu  10 do Alax'r Protiter  10 do Bavid Mathieu  10 do Alax'r Protiter  10 do Alax'r Protiter  10 do Bavid Mathieu  10 do Alax'r Boules, 3 m  10 do Zépherin Mayren  10 do Thomas Dubord  10 do Thomas Dubord  10 do Alax'r Hamelin  10 do Alax'r Hamelin  10 do Alax'r Ramelin  10 do Felix Hamelin  10 do Felix Hamelin  10 do Felix Hamelin  10 do Felix Hamelin  10 do Felix Hamelin  10 do Sépherin Bavicour  10 do Sépherin Bavicour  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié  10 do Narcisse Bouillié
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CR.	\$ cts. 858 75	17 50 22 50 18 75	5 20	22 50 30 00 22 50	22 50		22 50 22 50	18 75 22 50	18 75 22 50	22 50 22 50	00 00 00 00 00 00 00 00 00 00 00 00 00	22 50 22 50	22 50 17 50	17 50	18 75	22 22 50 50	888 188	30 00 22 50	22 50 22 50	18 75 22 50 22 50
Acting Treasurer, in account with Decayed Pilot Fund.	Brought forward	do Moïse Biron do do Alex. Trottier do de David Mathieu do		Paid Old Pilot Olivier Boudreau do	Olivier Raymond A. Naud, allowance for dues o	Paid C. Brunet do schr. 'Maggie McRae'' Paid Widow Olivier Abelle, 3 months' pension	do Zéphirin Boudreau do	do Thomas Dubord do	Jos. Lacoursière do Angust Mathon do	Pierre Pagé Olirica Barmond	ld Pilot Zéphirin Mayrand		,,	Moïse Biron do	David Mathieu	do Edouard Boudreau do	Olivier Boudreau do	o Jos. L. Dussereau 7idow Sévère Belisle		do Busèbe Toupin do do Olivier Abelle, pension to 1st Nov. do Zéphiriu Boudreau do
n account v	1878.	May 7		do 99		July 17 August 1		do do	do do				do 5		do 5	do 5				do 20 Nov. 2 do 2
easurer, i	\$ cts. 6,005 91	0 80	105 72			- 112.74														<del></del>
H. D. WHITNEY Acting Tr	Brought forward	Received from C. Brunet, poundage on schooner. Received from Collector of Customs, poundage. Roof of December.	interest to date																-	
Dr.	1878.	Dec. 16 do 24																		

DECAYED	PILOT	FUND.	1878

STATEMENT OF FUNDS.	\$	cts.
Montreal Harbour Ronds, 6½ per cent. Interest	21,000	
do do 6 dodo Water Works Bond, 6 per cent. Interest.	3,000 2,000	
Dominion Stock, 6 do	1,620	
Cash deposited in City District Bank, 4 per cent. Interest		
Cash in Treasurer 8 hands	<b>3,99</b> 5	45
	\$31,615	45

(Signed)

H. D. WHITNEY,
Acting Treasurer.

Montreal, 31st December, 1878.

I hereby certify that I have examined the statements of receipts and disbursements of the Acting Treasurer of the "Decayed Pilot Fund" for the year ended 31st December, 1878; also the securities mentioned in the above statement belonging to this Fund, and the cash on hand, all of which I find to be correct.

(Signed) THOMAS CRAMP, Chairman.

## APPENDIX No. 43.

REVENUE derived from Wharves and Piers, paid to credit of Receiver-General, for Fiscal Year ended 30th June, 1878.

	\$	ets.
Maitland, N.S	57 117 2,051 561	70
Les Eboulements   \$40 00	901	UU
L'Islet	580 18	00 50
Total	3,386	79

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

#### APPENDIX No. 44.

REPORT ON THE MARINE HOSPITAL, CHARLOTTETOWN, PRINCE EDWARD ISLAND, FOR THE FISCAL YEAR ENDED 30th JUNE, 1878.

CHARLOTTETOWN, 1st July, 1878.

SIR,—I have the honour to forward my report as Medical Superintendent of the Marine Hospital for the fiscal year.

There were admitted 64 seamen, all of whom were sent away cured or relieved,

except those now remaining in the hospital.

I very much regret that my suggestion respecting the building of a new edifice has not been acted upon.

The building now used is altogether inadequate for the purpose, being a small

rented cottage.

I hope, before I shall have the opportunity of sending in my report for next year, the Department will see the way clear to erect a building suitable for our hospital purposes.

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

F. P. TAYLOR, F.R.C.S.

The Honourable

The Minister of Marine and Fisheries, Ottawa.

#### APPENDIX No. 45.

STATEMENT shewing the Names of the Members on the Establishment Staff of the Department of Marine and Fisheries, the Rank held by each, and the Salaries they severally received, during the Fiscai Year ended 30th June, 1878.

To whom paid.	Rank.	Salary.	Amou	nt.
The Hon. Sir Albert J.			\$	cts
Smith			.; 7,000	00 (
William Swith	Deputy Minister	do	. 3,200	00
W. F. Wie cher	Commissioner of Fisheries	do	2,400	00
	Chief Clerk.			
Joseph Tomlinson	General Superintendent of Lights	do	0'050	
	Accountant			
	1st Class Clerk		1	
W. L. Magee		do	1	
W & Pottomore	Senion and Class Class			
W. S. Pettegrew	Senior 2nd Class Clerk			
F. Gourdeau	do	do		
M. Graburn	do	do	. 1,100	) 00
W. P. Anderson	Junior 2nd Class Clerk and Assistant			
	Engineer	do	. ' 1,600	
W. H. Alexander	Junior 2nd Class Clerk	do	. 925	(00
R. N. Venning	do	do	. ( 900	00 (
G. Trudeau	do	do	. 850	00.
John Makinson	do	do	.1 800	00
Arthur Chisholm	3rd Class Clerk	do \$600 0	)!	
	Private Secretary			
	1			00
W R Corleton	3rd Class Clerk	do 650 00		
do		Arrears from 1st	7	
uo	do	Jan. to 30th June.	1	
			l,	
		1877 25 00		
T D TT 11	•			00
J. B. Halkett	do	12 months' salary		00
	Messenger	do	1	00
Jas. Robertson	do	do	1 270	00
		Total	32,682	50

WM. SMITH,
Deputy Minister of Marine and Fisheries.

JOHN TILTON,
Accountant.

#### APPENDIX No. 46.

EIGHTH ANNUAL REPORT OF THE METEOROLOGICAL SERVICE OF THE DOMINION OF CANADA FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1878.

(G. T. KINGSTON, M.A., Superintendent.)

To the Honorable

The Minister of Marine and Fisheries.

SIR.—The system on which this service is based, and the purpose for which it was called into existence, have been fully described in former Reports. It is proposed in this Report to give a general view of the working of the service in its various branches.

The branch of Meteorological work which first attracted public attention in Canada, and which was at the same time beginning to make some progress in other countries, was that connected with the issue of storm warnings. These in Canada are messages despatched to the various points on the coast and the lakes, warning persons connected with shipping, &c.,that a storm will probably pass over the place warned, or

within such a distance that ships leaving port might probably encounter it.

The data on which these warnings, as well as all our weather predictions are based, are the observations taken at a large number of places at 7.25 a.m., 4.25 p.m., and 10.50 p.m., Toronto meantime, and immediately telegraphed to Toronto. The reports from Canada alone would be insufficient for the purpose of accurate prediction; but through the courtesy of the Chief Signal Officer at Washington, D.C., we receive reports from a number of places in the United States, and in exchange forward the reports received from our stations in the Dominion. The information consists of the atmospheric pressure as shown by the readings of the barometer, the temperature of the air, the relative humidity, the velocity of the wind and the direction from which it is blowing, the state of the sky, whether cloudy or clear; if cloudy, the quantity and kind of cloud, and the direction of its motion, and the amount of rain or snow, if any, which has fallen since the last report. The lowest temperature during the night

is also forwarded with the morning report.

As soon as possible the information thus received is entered on a map of the continent prepared especially for the purpose. The map is then examined by the officer, whose duty it is to make out the probabilities for the day, and issue warnings when necessary, and whose provious training is such that he must be able to tell at a glance what kind of conditions are likely to prevail during the 24 hours following. For this it is necessary that he should not only know such laws as have been already established relative to the movements of the various kinds of atmospheric disturbances, but he must also be familiar with a long series of previous weather charts, so that he may be able to supplement the conclusions drawn from theory by a practical knowledge of what has followed similar conditions on previous occasions. In the early days of the system in Canada, owing partly to the want of accumulated data, and partly to the insufficiency of the information at that time received by telegraph, the Dominion was entirely dependent on the Washington Signal Office for warnings of storms. At the present time, however, although the Chief Signal Officer continues to have warnings forwarded to this office whenever it is considered probable that a storm will prevail in any part of the Dominion warnings are nevertheless forwarded direct from Toronto without waiting for notice from Washington, partly to avoid telegraphic delays, and partly because it is considered that, as far as possible, the ultimate responsibility of forwarding warnings to Canadian stations should rest with the Canadian service. Warnings accordingly are forwarded or not at the dis-

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cretion of the officer on duty, except at midnight, when, owing to the insufficiency of our information, those from Washington are exclusively relied on.

Some persons in the entire ignorance of the principles concerned in giving storm warnings have supposed that the sea coast could not be properly warned from an inland station such as Toronto. From what has been said above, it will be seen that the Central Office might be situated on the other side of the Atlantic, or even in China or Australia, were these places convenient as regards telegraphic communication, which is the only essential requirement. Both with respect to the rapidity and cost of transmission the telegraphic facilities of Toronto are unequalled by any point in Canada.

The efficiency of this branch of the service is shewn by the following tables, where it is stated that rather more than 78 per cent. of the warnings have been verified.

Table No. 1 gives the number of warnings issued in each quarter and to each district during the year.

TABLE I.

								<i>-</i>									
	Number Issued.						UMBE	R VE	RIFIE	D.	PERCENTAGE VERIFIED.						
District.	lst quarter.	2nd quarter.	3rd quarter.	4th quarter.	Year	lst quarter.	2nd quarter.	3rd quarter.	4th quarter.	Year.	lst quarter.	2nd quarter.	3rd quarter.	4th quarter.	Year.		
LakesSt. Lawrence River and Gulf		12	64	132	351 208 301	i (	54 3 11	48	110		0 0	68·4 25·0 78·6	90 8 75 0 70 0	80·7 83·3 77·7			
Total	95	105	169	491	860	75	68	135	395	673	78.9	61.8	79 9	80-4	78.3		

Out of the 673 warnings which are entered as verified, 28 were issued from Toronto too late to be of service in warning shipping of the approach of storms, although nine of these were received at their destination before the storm was at its worst. There were also 36 which arrived late owing to telegraphic delays, in 10 of which cases the storm continued to increase in violence after their receipt.

Table II is given in order to shew the direction from which storms usually approach our ports.

						4117	U13 .									
		Lakes.					WREN			Oc	EAN.		Total.			
DIRECTION.	No. issued.	No. verified.	No. not verified.	Percentage verified.	No. issued.	No. verified.	No, not verified.	Percentage verified.	No. issued.	No. verified,	No not verified.	Percentage verified.	No. issued.	No. verified.	No. not verified.	Percentage verified.
N	171 111 53 16	132 81 49 16	39 30 4	73.0	10 81 38 45 34	55 34 45	4	40.0 67.9 89.5 100.0 67.6	10 93 45 101 52	3 72 35 89 35	7 21 10 12 17	30·0 77·4 77 8 88·1 67·3	20 345 194 199 102	7 259 150 183 74	13 86 44 16 28	35·0 75·1 77·3 92·0 72·5
Total	351	278	73	79.2	208	161	47,	77.4	301	224	67	. 77 7	€60	673	187	78.3

The direction from which the storm approaches as given in Table II must not be confounded with the direction of the wind, although severe easterly gales are often felt, it will be seen that no storm had its general direction of motion from east to west. The direction of the wind is governed chiefly by the position of the storm centre relative to the station, the wind blowing in nearly opposite directions on opposite sides of the storm centre.

The amount of confidence placed on the predictions issued by this office is gradually increasing. This is evidenced by the frequent and favourable mention of the service by the press; as a sample of which we quote the following, as it shows that owners and masters of sea-going vessels will stay in port rather than venture out

when the storm signal is displayed.

The St. John "Sun" speaking of a warning received from Toronto, in its issue of the 23rd of December, has the following: "In the harbor, owing to the early warning, ample preparations had been made to meet the gale, so no damage of consequence resulted from it. The ships "State of Maine" and "Lizzie Troop" did not sail for Australia on Saturday as was intended, on account of the warning. The latter vessel partly broke from her moorings at Lawton's wharf yesterday morning, the bow spring parting. The stern line held fast, however, and with the assistance of the tug "Dirigo," she was got around into position again and secured."

#### Probabilities.

While in the first few years of the existence of this service the general public were receiving no immediate benefit from it, except through the storm warnings, as soon as a larger amount of information began to be received by telegraph, it was deemed advisable to make the usefulness of the service more widely felt by the issue of daily probabilities; that is, by publishing a statement each morning of the weather which is likely to prevail in the various districts during the 24 hours following. The success with which this was performed during the past year is shewn in the following table (Table III.), which gives the number of predictions issued, fully verified, partly verified, and not verified, for each month and for the year in each district. It will be seen from this table that the number of predictions fully verified exceeds 79 per cent.

Ξ	
H	
BL	
${ m TA}$	

						`		. 0.	<b>.</b>						
l		Per Centage Fully and Partly.	96.4	95.5	91.4	92.6	95.0	94.3	8.16	2.16	6.06	8 16	92.1	95 2	93.5
	ed.	Per Centage	83.3	81.3	9 08	6.91	81.8	8.08	80.7	ੂ≎.61	9.81	211.3	0.42	82.4	19.4
Total.	Verified	No. Not.	15.	15	32	12	13	14	23	23	26	26	27	19	245
I I		No. Partly.	55	47	40	51	34	33	31	31	35	65	62	51	535
		No. Fully.	350	270	300	210	211	198	225	202	224	226	253	327	3001
		No. Issued.	420	332	372	273	258	245	279	197	285	317	342	397	3781
		Per Centage Fully and Partly.	90.3	94.5	8.68	96.2	93.0	96.1	92.0	93.7	89.1	64.3	92.0	93.5	93.7
Maritime Provinces	ied.	Per Centage Fully.	88.2	80.0	78.1	75.6	76.5	81.6	82.8	12.88	73 9	73.3	8.02	80.2	15 5.63
Pro	Verified.	No. Not.		~ <sub>9</sub> .	<b>-</b> E	ന	9	<u> </u>	1-		10	-9	_o_		15
itime	[	No. Partly.	16	16	14	18	14	11	80	4	1	2.3	61	16	ΪĒ
Maı		No. Fully.	127	88	100	65	65	62	12	711	-89	13	68	- 66	97.1
		No. Issued.	144	110	127	98	. 38 _ 38	9,	81	80	33	105	113	123	1228
		Per Centage Fully and Partly.	94.4	96.1	8.06	93.3	8.86	8.86	87.4	₹.88	93.2	1.88	0.76	1.96	93.2
ce.	ed.	Per Gentage Fully.	83-2	9.24	82.2	9.94	1.98	1.98	6.22	6.04	19.5	f.19	74.3	84.6	79.1
Lаwence	Verified	No. Not.		4	11	-9			12	10	9	===	_ <sub>0</sub> _	4	32
St. L		No. Partly.	14	19	10	16	101	10	<sup>-</sup> ຄີ	15	12	20	20	15	170
		No. Fully.	104	19	-66	89	72	7.5	74	19	72	64	8	104	951
		No. Issued.	125	103	120	06	83	83	95	98	8	95	113	133	1203
		Per Centage Fully and Partly.	95.4	92.8	93.6	93.0	93.3	88.4	95 9	91.6	90.5	92.3	92.5	95 4	93 6
wer Lake Region	ed.	Per Centage Fully.	8.82	85.8	8.08	19.4	82.3	F.72	81.4	6.82	6.18	12.6	7.91	82.1	79 7
ake I	Verified	No. Not.	. r-	- <u>.</u>	<b>x</b>	ີຕີ	်ဗ	9	4	<del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del>	10	ີດີ			98
er L		No. Partly.	25	13	16	17	10	12	7	=======================================	ົດົ	23	18	20	188
Low		No. Fully.	119	103	101	11	4.	759		13	-98 -	88	68	124	1076
		No. Issued.	151	120	125	26	6	98	97	] SG	105	==	116	151	1350 107
	Months.		January	February.	March	A pril	May	June	July	Angust.	September	October	November	December	Year

In ascertaining whether the predictions have been verified or not, the reports of the Agents at the "Probability" Stations as well as the telegraphic reports, have been made use of. These probabilities have been telegraphed every morning as soon as possible after 10 o'clock to over 100 places, and are posted both in the telegraph office and the post office at each place. Permission to post these weather bulletins in the post offices was kindly granted by the Postmaster General. A list of the stations now receiving the probabilities is at pended.

The daily probabilities and storm warnings might be considerably improved were reports received from a few additional stations; for, as may be seen by reference to Table II, while the general percentage of fulfilment of the storm warnings was over 78 per cent, it was only 35 per cent in the case of those approaching from the north. This is due to the want of reports from stations to the north and northwest; while it has until recently been impossible to remedy this defect owing to the want of telegraphic communication. The want might now be in a great measure supplied were facilities afforded for transmission of reports from stations on the line of the Canadian Pacific Telegraph, by the telegrams being allowed to pass free over the Government lines, as is done in Russia, Austria, Portugal, &c. In connection with this subject it may be remarked that in the United States whole lines are built and operated entirely by the officers of the signal service. It was intended to have had reports sent from Prince Arthur's Landing, where a station has been for some time established; but owing to the heavy cost of transmitting the messages, it was found that the funds of the Service would not permit of it.

As was said in former reports an additional station is required in the south-west of Nova Scotia for the purpose of giving the earliest possible indication of storms

approaching from the Atlantic.

If the scheme of the Hon. Dr. Fortin for the extension of the telegraph system along the north shore of the St. Lawrence, and to the various lighthouses on our coast be carried out, it would prove valuable to this Service, as we should then be able to obtain reports from regions whence at present we have no information, and thus, as already suggested, improve our prognostication of storms, especially those approaching the Gulf from the north and north-west. However, warnings, as stated by Dr. Fortin, could then be transmitted to the lighthouses and communicated to passing

shipping by means of signals.

Although the weather predictions are immediately founded on the reports received by telegraph, it is nevertheless extremely important that the officer who utilizes this information in prognosticating the weather should be thoroughly acquainted with the climatic peculiarities of various localities in order that he may understand the influence that they are likely to exercise on the coming weather. But to obtain this knowledge it is necessary that observations should be taken at as large a number of places as is practicable. The work of collecting statistics for this purpose is for the most part carried on by volunteer observers, of whom we have 117, while there are only ten stations in the Dominion where any remuneration is given for such work. At these paid stations the observations are taken night and day at equal intervals, not exceeding three hours. The returns of these observations which have been published yearly with the report of this service are of great value in dispelling erroneous notions regarding the climate of certain districts, and in aiding farmers and others interested in agriculture to select the crops most suited to the climate, while they serve the intending settlers in selecting the localities best suited to them.

Statements published regarding the climate are often misleading on account of the information being obtained from persons using unreliable instruments, or who are unacquainted with the precautions which must be taken in order to insure accuracy. This is not surprising, as for a long time it was found impossible to obtain a supply of themometers which, at very low temperature were accurate within even 5 or 6 degrees, and it was not until the attention of the instrument makers was called to this subject in consequence of representations made by this office that the evil was remedied. While the thermometers ordinarily sold are rarely tested below the freezing

point of water, the instruments now in use in this service are tested at the freezing point of the mercury (37.9° degrees below zero) and unless the error is found to be within moderate limits the thermometer is rejected and in the care of those accepted the necessary corrections are supplied. As an instance of the large errors to which untested instruments are liable, it may be mentioned that sometimes temperatures have been recorded as low as 50 degrees below zero by persons using a mercurial thermometer, in which case the instrument must have had an error of at least 11 degrees, as the mercury will not continue to fall after it has become solid. Errors are not only introduced through defective instruments but are frequently owing to a badly selected exposure, thermometers being often placed either in proximity to substances differing widely from the temperature of the air or where the direct rays of the sun fall upon them.

In order that information relative to climate may be trustworthy, it is necessary that those who furnish it should be acquainted with the correct method of taking and recording meteorological observations, and it is also desirable that they should understand the principles on which these methods are founded.

With a view to supplying this want a book of instructions was issued early in the year, which not only teaches the practical work of the observer, but contains a tolerably full explanation of the elementary principals concerned in the construction and use of the meteorological instruments, and of certain phenomena of which a detailed description is also given. Under the head of vanes and anemometers considerable attention has been bestowed not only on the construction of the instruments, but also on a point which has generally not received sufficient attention, viz; the proper selection of a site for exposure and the methods by which the difficulties due to various circumstances may be overcome. The instructions are copiously illustrated by wood-cuts, lithographs and photographs. Later in the year three smaller books were issued and adapted for the use of stations where only a few elements are recorded.

The large number of volunteer observers enables the Meteorological service in Canada to be carried on at a comparatively small cost to the country, and our thanks are due to all those gentlemen who have performed these services gratuitously during the past year. Although it is desirable to extend the area over which observations are taken, it is not expedient to employ in this service any except those who have a taste for such pursuits, as others are likely to enter upon the work with the idea that at some future time they may obtain some remuneration for it. Payment for such services is entirely out of the question, the utmost that can be done being to supply persons desirous of taking observations with the loan of instruments, forms, &c., and to prepare and publish their returns. In many other countries observers not only purchase their own instruments, but pay an annual subscription as members of some Meteorological Society, to defray the cost of compiling and publishing their returns; a work which in Canada is performed by the Central Office without cost to the observer. The classes into which these ordinary stations are divided are as follows :--

Class I .—Stations at which observations of all the ordinary elements are made at least three times a day.

Class II.—Stations where records are kept of the temperature, the direction and velocity of the wind, the amount of rain and snow, and the general state of the weather, with notices of miscellaneous phenomena, the observations being made two or three times each day.

Class III.—Stations where records are kept of the amount of rain and snow, with notices of miscellaneous phenomena. In some cases are added a record of the temperature.

A complete list of the stations in connection with this service is appended to

this report. Among the ordinary stations will be found the names of the following which have been started during the year.

Newfoundland—Bett's Cove	D. Sutherland.
ville	R. C. Weldon.
Ontario-London	W. J. Macintosh.
do Owen Sound	J. McLean.
do Ottawa	
Keewatin—Fort Alexander	A. K. McKenzie.
do Gimli	W. Taylor, Icelandic Reserve
Manitoba—Ossowa	W. H. Surton, Q.C.
do Poplar Heights	A. Spiers.

Instruments have been also furnished to a few other places from which reports have not yet been received.

The total number of stations reporting to the Central Office at the 31st of Decem-

ber, exclusive of probability stations, was 179.

Volunteer observers are very much needed throughout the Province of Quebec, and in some parts of New Brunswick, and also in the North-West. The portion of country, however, about which we most need information, and from which no reports have yet been received, is that lying to the north of the rivers St. Lawrence and Ottawa, and east of James' Bay.

As in the previous year a Weather Review has been published every month, containing a brief description of the atmospheric conditions and movements in various parts of the country, including a short notice of every storm. A copy as published each month is appended herewith. It would increase the value of the statistics of storms on the ocean if captains of vessels would give the latitude and longitude in which storms were experienced, as well as the correct ship time of their occurrence and also the direction of the wind at the time.

A book of Hygrometric Tables, of which a large portion was calculated at the

Central Office, has been published for the use of Observers during the year.

With a view to the successful working of our meteorological system, and indeed to its very existance, it is most imperative that an efficient staff should be retained at the Central Office by offering a lequate salaries and fair prospects of advancement. To suppose that the loss of an experienced assistant, driven away to seek more remunerative employment elsewhere is one which can be easily repaired by a new appointment is a grave mistake. The apprentiseship needed even for the ordinary work of the office can rarely be acquired elsewhere, and to attain to skill in some of the branches of the work, such as weather prognostication, there is needed not only the preparation of long and continuous study, but also a peculiar mental constitution, in the absence of which no amount of study will ensure efficiency. I consider that to supply the necessary encouragement to the staff of the Central Office, they should be placed on the list of regular civil servants, regard being had, in determining their pay, to special qualification as well as to length of service.

I have already expressed my thanks for the valuable service and assistance rendered by the gentlemen in charge of the ordinary stations. My thanks are also due to such of the agents at the probability stations as furnish daily reports of the weather. Those so reporting are indicated on the list of probability stations. These reports aid very materially in ascertaining the extent of the verification of our predictions. I further beg to thank Mr. Brydges, Superintendent of Government Railways, for forwarding to this office the reports of the weather which he receives daily by telegraph from several points on the Intercolonial Railway. I have forwarded to him on various occasions, warnings of approaching snow storms, and of winds likely to cause serious drifts.

To the Chief Signal Officer at Washington, D.C., this office is under great obligations for the tri-daily telegraph reports from a considerable number of stations in the United States, and for transmitting to us warnings of approaching storms. These form an important share of the data on which the predictions of the weather are based, and in fact, it is by the aid of these supplementary reports supplied through the kindness of the Chief Signal Officer, which costs this office nothing more than the expense of transmission by telegraph, that it has been practicable to effect so much with the comparatively small appropriation for meteorological purposes in Canada.

with the comparatively small appropriation for meteorological purposes in Canada.

The collection of books in the Library in connection with this office has been considerably augmented during the year by presents and exchanges. A list of the donations, with the names of the persons by whom they were given, will be published

with the tables.

The above is respectfully submitted.

G. T. KINGSTON,,
Superintendent of Meteorological Service,
Dominion of Canada

METEOROLOGICAL Stations in correspondence with the Central Meteorological Office, Toronto.

#### CHIEF STATIONS.

Province.	Station.	Superintendent.
Nova Scotia	Sydney	T. C. Hill.
	Halifax St. John	Frederick Allison, M.A.
O	1	Professor Harrison, University of New Brunswick
	Montreal(3) Kingston	Lieut -Col. T. B. Strange, R.A.
Onditio	Woodstock	Professor J. Montgomery, Canadia
Manitoba	Winnipeg	Officers of St. John's College.
British Columbia	Spence's Bridge	John Murray.

#### REPORTING TELEGRAPH STATIONS.

Station.	Observer.	Station.	Observer.
(1) Halifaz, Nova Scotia Chatham, New Brunswick Father Point, Quebec	G. A. Blair J. McWilliams	Kingston, Ontario	H Morgan. M. Payne.

<sup>(1)</sup> viso Chief Station; (2) Also First Class Ordinary Stations; (3) Chief Stations in a partial sense only.

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#### RESERVE TELEGRAPH STATIONS.

Station.	Observer.	Station.	Observer.
St. Andrews, N.B	Dr. Gove.	Stayner, Ontario	R. J. Cole.
	H. J. Cundall, C.E.	Brockville do	W. R. Bigg.

<sup>(2)</sup> Also First-class Ordinary Station.

#### CAUTIONARY STORM-SIGNAL STATIONS.

Station.	Person in charge.	Station. Person in charge.
(b) St. Andrews, N.B. (1) St. John, N.B. (d) Digby, N.S. Liverpool, N.S. (1) (a) Halifax, N.S. (e) Cow Bay, N.S. (d) Little Glace Bay, N.S. (d) Little Glace Bay, N.S. (o) Port Hastings, N.S. (e) Picton, N.S. (f) (b) Charlottetown, P.E.I. Pointe du Chêne, N.B. (o) Bathurst, N.B. (c) Bathurst, N.B. (d) Dalhousie, N.B. Percé, Quebec. Gaspê do	G. Murdoch, C.E. W. H. Taylor. J. L. Hemmeon. F. Allison, M.A. C. Archibald. C. H. Rigby. T. C. Hill. W. H. Townsend. Peter Grant. M. Campbell. H. J. Cundall. H. H. Schaefer. G. A. Blair. Hon. J. Ferguson. P. Vibert.	Quebec, Quebec
(a) Father Point, Quebec		Collingwood do Arthur Bligh.

<sup>(1)</sup> Chief Station. (a) Reporting Telegraph Station. (b) Reserve Telegraph Station. (c) First-class Ordinary Station. (d) Second-class Ordinary Station. (e) Third-class Ordinary Station.

#### ORDINARY STATIONS.

Station	Observer.	Station.	Observer.
NOVA SCOTIA.		New Brunswick. — Concluded.	
Class 1.		Class II.	
Truro, Colchester King's College, Windsor (f) Port Hastings, C.B	Prof. J.E. Oram, M.A	(f) Dalhousie, Restigouche.	James Clark.
Class II.		Class III.	
Digby	J. Hanlon.	Dorchester,	E. V. Tait, M.A.
Dand I om Digitalouse	s. munden.	Class I.	
Class III.			D OIL W
Beaver Bank	James Grove. C. Archibald. J. Chailoner.	Huntington	P Cassidy.
Newfoundland.  Class I.  St. Johns	N. Smith.	Bird Rocks Anticosti, S.W.P. Belle Isle Chicoutimi St. Prime. Richmond  Class III.	E. Pope M. Colton. P. Godier. Rev. Abbe Huart. Rev. E St. Hillaire.
Class II.		Danville	G. F. Hall.
Bay St. George	E. Weedon. G. M. Carson.	Ontario.	
Prince Edward Island.		Little Current, Algoma Norwood, Peterborough	ingham M.A.
Class I.  (b) (f) Charlottetown	H. J. Cundall, C.E.		James Grant. Dr. Martyn. Rev. A. F. Kemp, LL.D.
Class II.		Windsor, Essex	A Sinclair, M.A.
GeorgetownSourisKilmanhuaig	D. Sutherland.	Simcoe, Norlolk Hamilton, Wentworth Stratford, Perth Goderich, Huron Belleville, Hastings Peterborough, Peterborough Barrie, Simcoe	G. Dawson, B.A. J. F. Jeffer, M.A. H. B. Spotton, M.A.
New Brunswick.  Class I.		Cornwall, Stormont	J. Smith, M.A. A. Thompson. W. P. Cooke.
(f) Bathurst	Hon. J. Ferguson.	London	W. J. Mackintosh.

#### ORDINARY STATIONS .- Concluded.

··			
Station.	Observer.	Station.	Observer.
4			
ONTARIO.—Concluded.		NORTH-WEST TERRITORIES.	
Class II.		Class I.	
Brampton, Peel	J. Reynolds.	York Factory	W. Wood.
Seelv do	A. G. Merser.	Battleford	Price.
Beatrice do Fitzroy Harbour, Carleton	J. Hollingworth.	Fort Walsh, Cypress Hills	T. R. Neate.
Welland, Welland	H. A. Willett.	Fort MacleodFort Rae	A. Flett.
Newmarket Port Perry	J.Morrison, M.A., M.D.	Moose Fort	J. R. Nason.
Galt	J. Gordon Mowat.		
Galt	John Young.	Class II.	
Point Pelee Nottawasaga Island	G. Collins.	Fort Calgary	Medical Officer.
Clapperton Island Owen Sound	B. Baker.	Fort CalgaryQu'Appelle	Thos Swanston.
Owen Sound	J. MCLean.	Shoal Lake	Sub-Insp. French.
Class III.		Swan River Barracks	Corp. Borrodaile.
v			
Georgina, York	Capt. Sibbald, R.N.	BRITISH COLUMBIA.	
(f) Port Dalhousie	E. F. Dwyre.	Class I.	
Lakefield	H. Lefebyre.	Esquimalt	W. H. Bevis.
(f) Goderich	John Mackenzie.	Esquimalt New Westminster	Capt. A. Peele.
KERWATIN.		Class II.	
Ingolf	D. Rodger, C.E.	Stuart's Lake	G. Hamilton.
Fort Alexander	Rev. B. Spence.		
		Class III.	
MANITOBA.	1 <b>1</b>		
Class 1.		Langley	James Mackie.
• • • • • • • • • • • • • • • • • • • •		Chilliwhack	John McCutcheon.
(a) Fort Garry	James Stewart.	Hope	John G. Wirth.
Manitoba Penitentiary	S. L. Bedson.	Caché Creek	J. Clemitson.
Emerson	Rev. M. Jukes.	(Clinton	M. U'Connor.
MATTELL Introduct concessors area ortangens	v. layioi.	Soda CreekLillooet	A. W. Smith.
Class III.		Quesnelle Kamloops	James Stone.
		Spalamichin	A. L. Forune.
Little Britain	Hon. D. Gunn.	O'Kanagan Lake Douglas Lake	A. Postell
Ossowa	A. Spiers.	Nicola Lake	E. Dailey.
	]	<u> </u>	<u> </u>

<sup>(</sup>a) Reporting Telegraph Stations.

<sup>(</sup>f) Cautionary Storm Signal Stations.

STATIONS from which Special Weekly Reports of Observation at 7:25 a.m., Teronto time, are received.

Station.	Observer.	Station.	Observer.
Nova Scotia.  (f) Glace Bay	Hon. J. Ferguson. H. A. Johnson. Prof. Harrison. G. Murdoch, C.E.	ONTARIO.  (c) Cornwall (l) Woodstock	Prof. Montgomery. J. Grant. *** J. Grant. *** C.J. Macgregor, M.A. J. F. Jeffers, M.A. G. Dickson. Rev. T. F. Fothering- ham, M.A.

<sup>(1)</sup> Also Chief Station; (c) also First Class Ordinary Station; (f) Second Class Ordinary Station; (f) Cautionary Storm Signal Station.

At Woodstock, Ont., Fredericton and St. John, N.B., observations are regularly made at the other hours for telegraphic observations.

Instruments and Books have also been supplied to the following Stations, but no Returns have as yet been received.

Station. Ob	server.	Station.	Observer,
ATHABASCA.  Three Stations Officer in	charge.	THABASCA.—Concluded.  Class II.—Concluded.  iiscamingue, Nipissing	Rev. J. W. Pian. Mr. Têtu.
Fort Resolution	on.  rlane, C.T. charge.  cKay.	ERITISH COLUMBIA.	Rev. A, Girard.

#### PROBABILITY STATIONS.

#### AGENTS OF THE DOMINION TELEGRAPH COMPANY.

ONTARIO. \*Orillia. Aurora. \*Oshawa. \*Barrie. Belleville. \*Ottawa. \*Owen Sound. \*Berlin. \*Paris. Bowmanville. \*Brampton. \*Pembroke. \*Peterboro'. \*Brantford. \*Perth. \*Brockville. \*Picton. \*Caledonia. Port Burwell. \*Chatham. Port Colborne. \*Clifton. \*Port Dalhousie. Port Dover. \*Cobourg. \*Collingwood.
\*Cornwall. Port Elgin. \*Port Hope. Dundas. \*Port Perry. \*Elora. \*Port Stanley. Fergus. \*Prescott. \*Galt. \*Sarnia. \*Gananoque. Seaforth. \*Goderich. Guelph. Simcoe. \*Smith's Falls. Hamilton. \*Southampton. Ingersoll. Kincardine. \*Stratford. \*Strathroy Kingston. \*Lindsay. \*St. Catherines. \*St. Marys. \*London. \*St. Thomas. Meaford. Toronto. Mount Forest. Uxbridge. Napanee. Waterloo. Newmarket. †Wellington. \*Niagara. Whitby. \*Oakville Woodstock. Orangeville. QUEBEC. Rivière du Loup \*Aylmer. \*St. John. \*Berthier (en haut). \*Terrebonne. \*Jolliette. Three Rivers. \*Montreal. \*Quebec. NEW BRUNSWICK. \*Salisbury. Andover. Sackville. \*Dorchester. \*St. John. Fredericton. Sussex. \*Memramcook. Woodstock. Moncton. Petitcodiac. NOVA SCOTIA. \*Pictou. \*Amherst. Pugwash. Cape Canso. River St. John. Dartmouth. Tatamagouche. (luysboro'. \*Tor Bay. \*Truro. Hampton. \*Wallace. New Glasgow.

<sup>\*</sup> These Stations report as to the verification of the predictions. † The probabilities were sent to this Station for portion of season only.

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# METEOROLOGICAL SERVICE OF THE DOMINION OF CANADA.

#### STORM WARNING.

ISSUED BY THE CENTRAL OFFICE, TORONTO, AT 7.10 P.M., 21st DECEMBER, 1878.

Received by Telegraph at St. John, at 9:05 p.m. local time. G. Murdoch, Agent.

#### CAUTIONARY STORM SIGNALS ARE ORDERED UP AT

Gaspé, Point du Chêne,
Percé, Charlottetown,
Dalhousie, Bathurst, Sydney,
Chatham, Glace Bay,

Cow Bay, Liverpool,
Louisbourg, Digby,
Port Hastings, St. John,
Halifax, St. Andrews.

G. T. KINGSTON,

Superintendent.

The ordering up of the Cautionary Storm Signals is intended to warn those connected with shipping that a storm will probably occur, either at the place at which the signal is displayed, or within such a distance that ships leaving port might be affected by it.

REPORT OF THE DIRECTOR OF THE MAGNETIC OBSERVATORY, TORONTO, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1878.

#### To the Honorable

The Minister of Marine and Fisheries.

SIR,—In the Report which I had the honour to make to the Department for the year 1874, I gave an outline of the origin and objects of this and other Colonial Observatories, which were set in operation by the Imperial Government in 1839. I also briefly described the various instruments and their uses, and gave a short summary of the facts connected with magnetism, which have been brought to light by the Toronto and other magnetic observatories.

It will be sufficient, therefore, in this Report to state in a very brief manner the various kinds of observations, as well as any changes that have been made in the

course of the year 1878.

#### MAGNETIC OBSERVATIONS.

The Direction of the magnetic force is defined by two angles, namely, the Declination (called by sailors the variation of the compass), and the Inclination or dip.

The numbers which express the intensity of the force, and the declination and dip which define its direction, are called the "Magnetic Elements." This term is applied also to denote the horizontal and vertical components of the force, named for brevity the "horizontal" and "vertical" forces, while the force, to distinguish

For determining the it from its components, is usually called the "total force." elements above named the following apparatus is employed:

1. Declinometer and Azimuth Circle for the declinations.

2. Dip Circle and Needles for the dip or inclination.

3. Vibration and Deflection Apparatus for the horizontal force.

The total force is commonly computed from the horizontal force and the dip,

but it may be found by an independent instrument.

As the observations taken with the above named instruments occupy a considerable time, they are not adapted for the detection of changes which takes place in a short time.

To observe the more minute and rapid changes, differential magnetomers are

employed, namely:-

1. Differential Declinometer, which shews the change that the declination has undergone between any two times of reading.

2. The Bifilar, for measuring changes of horizontal force.

3. The Balance Magnetometer, for measuring changes in the vertical force.

4. The Induction Inclinometer, for changes in the dip.

The changes in the dip, as well as changes in the total force, may also, be computed from those of the horizontal and vertical forces.

The above named differential instruments are ordinarily read seven times daily,

namely:—At 6 a.m., 8 a.m., 10 a.m., 2 p.m., 4 p.m., 10 p.m., and midnight.

Photographic Magnetographs.—In addition to the Differential Magnometers that are read by the eye, the Observatory is furnished with photographic self-recording magnetometers, the traces obtained from which, give a continuous record of the values of the several magnetic elements.

These instruments resemble, in their general character, those of the Observatory of the Royal Society at Kew. During several later years they were mounted in an underground room, where the changes of temperature were slow and minute, and were working in a most satisfactory manner until August, 1878, when, in consequence of a very heavy fall of rain on 4th August, the building which was of wood, and was constructed in 1865, partially gave way. An attempt was made to repair the damage and arrest further collapse, when another heavy rain in September completed the ruin: although, fortunately, without injury to the apparatus.

As the building proved to be throughout in a state of decay, notwithstanding the precautions taken when it was originally built, it was determined to employ no wood in its reconstruction, excepting for the roof. The wooden walls were accordingly replaced by a circular stone wall 18 inches thick, and extending about 5 feet above the general level of the ground outside; the earth being banked up so as to have about 1 foot of the wall exposed. The roof is a steep pyramid of eight sides, and the ceiting is double, so as to diminish as much as possible, the range of the internal temperature. The room is 18 feet in diameter, and the height of the ceiling above the floor is 9 feet. It is hoped that the stone walls will soon be sufficiently dry to allow the magnetographs to be again set in working order.

Meteorological Observations.—The ordinary meteorological instruments for observation by the eye, are read six times daily. In addition to these we have had in successful operation, since the early parts of 1876, a barograph and thermograph. It is designed to transfer the barograph to the new underground room, in order to protect it from the changes of temperature to which in its present position it is subject.

In the spring of 1875, an anemograph constructed by Beck, of London,

superseded the old one which had been in operation for many years.

All the self-recording instruments are similar to those used at the seven

observatories in connection with the British Meteorological office.

The top of the Observatory Tower, where the anemometers had for many years been mounted, became, in the autumn of 1877, a far less suitable position for exposure, tnan it had been in consequence of the erection of the School of Practical Science, immediately east of the Observatory inclosure. Through the kindness of the Honourable the Minister of Education for Ontario, a platform, for the support of the anemometer was erected above the deck roof of the new building; by which a vastly better position for exposure was secured. The instrument commenced working in its new position on 16th October, 1878. The height of the cups above the ground is 925 feet

Astronomical Observations.—The only astronomical observations for which this Observatory possesses appliances, are those for the determination of correct time; which is necessary for the Magnetical and Meteorological Observations. The time as determined by this Observatory is also the standard by which all the clocks and watches in Ontario have been regulated for nearly forty years: and for more than seven years the Observatory has given time, daily, to the city, by striking all the firealarm bells at a fixed instant, 11.55 a.m.

Buildings and Premises — As no special fund is provided for keeping the residences of the staff in repair, it has been found necessary, in order to secure the buildings

from ruin, to draw rather heavily on the annual grant.

The expenses of the establishment in the fiscal year ended 30th June, 1878, amounted in all to \$4,800.15.

The above is respectfully sel mitted.

G. T. KINGSTON,
Director.

REPORT ON THE MONTREAL OBSERVATORY FOR THE CALENDAR YEAR ENDING 31ST DECEMBER, 1878.

McGill College, Montreal, 31st December, 1878.

To the Honorable

The Minister of Marine and Fisheries.

. Sir,-I beg to transmit to you my Annual Report on the McGill College Obser-

vatory, at Montreal, for the year just closed.

The work of collecting a series of tri-hourly meteorological observations has progressed without interruption during the year. The object had in view in making such a series of observations is fully set forth in my Reports for the years 1874 and 1877.

The duties of the Observatory as a telegraphic reporting station, in connection

with the Canadian system, have also been sustained without interruption.

Extraneous work, such as supplying information to the public through the press, attending to the inquiries of persons seeking special information, etc., which it is

found increases from year to year, has been cheerfully attended to.

I regret that the hope expressed in my Report for last year, with reference to the erection of a barograph and thermograph at this Observatory, has not been fulfilled. The want of a complete equipment of self-recording instruments is seriously felt, and detracts materially from the value of our work.

The distribution of the yearly Government grant continues as heretofore.

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

> C. H. McLEOD, Director.

# REPORT ON THE QUEBEC OBSERVATORY FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1878.

Quebec, 25th January, 1879.

SIR,—I beg to submit the following report of the Quebec Observatory for the

year ended 31st ultimo.

During the past season of navigation the "Ball" has been daily dropped, and the time daily given for the firing of the "noon gun," as well as to the Montreal Telegraph Office in Quebec, where it has been distributed to their many offices and

to a section of the Intercolonial Railway.

The Observatory was also engaged in the determination of the longitude of Trois Pistoles, by electric telegraph (at the expense of the Local Government,) and a very accurate result obtained; it is to be hoped that in the future advantage will be taken of this Observatory's position and capital instruments to determine that of all the principal places in the Dominion.

I have the honor to be, Sir,

Your obedient servant,

E. D. ASHE,

Director Quebec Observatory.

W. SMITH, Esq.,

Deputy Minister of Marine and Fisheries, Ottawa.

# REPORT OF KINGSTON OBSERVATORY FOR THE CALENDAR YEAR ENDED SIST DECEMBER, 1878.

KINGSTON, 30th January, 1879.

Sir,—During my absence last summer in Britain and at Paris the usual observations were made by the Observer.

In the fall repairs costing \$29 were made on the dome over the equatorial,

which is now in good working order.

It has been found that the position of the Observatory is too low, more especially as the trees are shooting up around it and beginning to obstruct the view. It is also inconvenient in another respect. In winter it is difficult of access and in summer the thoroughfare through the Park in which the Observatory is situated passes just in front of it, while the Park being public property and in the heart of the City, i itself of course a place of general resort, where astronomical observations can seldom be carried on with the quietness which is desirable. The Observatory Board therefore are endeavouring, with the consent of the City Council, to provide for the erection of a new Observatory Building, and for the establishment of the instruments in a more elevated position, more free from the noises and other interruptions of a public park, and more easily accessible to the Observers at all seasons. It is confidently hoped that this will be accomplished in the spring.

I have the honour to be, Sir,

Your most obedient servant,

JAS. WILLIAMSON,

Director, Kingston Observatory.

The Honourable

The Minister of Marine and Fisheries.

# APPENDIX No. 47.

REPORT ON THE RICHIBUCTO MARINE HOSPITAL FOR THE FISCAL YEAR ENDED 30th JUNE, 1878.

RICHIBUCTO, 22nd January, 1879.

Sir,—I have the honour to submit my Annual Report for the fiscal year ended June 30th, 1878.

In my last I reported five seamen remaining in hospital. Those remained in the aggregate 32 days, when 4 were discharged cured and one improved.

During the fiscal year just closed 21 patients were admitted, 21 discharge

while 5 remained under treatment.

The aggregate number of days in hospital of those admitted during the year being 730. This, with the number of days for the five first mentioned, being 762 days in all.

I am happy to say that I have no deaths to report.

I have the honour to be, Sir,

Your obedient servant,

J. W. DOHERTY, M. D.

Hon. J. C. Pope,

Minister of Marine, &c.,

Ottawa.

# APPENDIX No. 48.

REPORT ON THE MARINE HOSPITAL AT SYDNEY, CAPE BRETON, FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

SYDNEY, CAPE BRETON,

SIR,—I have the honour to submit the Annual Report of the Marine Hospital

for the fiscal year ending 30th June, 1878.

The number of patients admitted during the year was twenty (20), of whom two died, viz.: John Perry, schooner "Boadicea," of Yarmouth, received 25th October, 1877, and died 3rd November, of "cerebritis," and Captain James McLean, schooner "John Tilton," of Charlottetown, P.E.I., received 22nd May, 1878, suffering from "croupous diphtheria," and died on 30th May, of paralysis of the heart.

The hospital has been occupied the entire year with the exception of 14 days,

from 6th May to 20th May.

I would respectfully, but very earnestly, urge upon the Department the necessity of supplying the hospital with a number of surgical appliances, which are absolutely necessary for the proper treatment of patients.

All of which is respectfully submitted.

A. D. MacGILLVARY, M.D.,

Medical Superintendent.

The Honorable
The Minister of Marine and Fisheries,
Ottawa.

# APPENDIX No. 49.

REPORT ON THE MARINE HOSPITAL AT VICTORIA, B.C., FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

VICTORIA, B. C., 12th August, 1878.

Sir,—I have the honour to submit the following Report of the Marine Hospital

for the year ending 30th June, 1878.

During the year 45 patients have been admitted into the hospital. There have been two deaths, one from malignant disease (cancer) of the stomach, and one from phthisis (consumption); with these exceptions, those admitted have either been cured or relieved, as far as the nature of the cases respectively admitted, and discharged.

The average stay of the patients in the hospital has been a fraction over 35 days. When it is borne in mind that it is only the severe cases that are sent into the hospital, the more ordinary classes being treated at Nanaimo and Burrard's Inlet, from whence the majority of the patients come, it will be seen that this average is

not unduly high.

The hospital is in first-rate condition; the cleanliness and order maintained reflect great credit on the keeper and his wife, Mr. and Mrs. Wood.

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

> JNO. C. DAVIE, M.D., Medical Superintendent of Marine Hospital.

William Smith, Esq.,
Deputy-Minister of Marine and Fisheries,
Ottawa.

# APPENDIX No 50.

GENERAL SUMMARY of Expenditure of the Department of Marine and Fisheries, for the Fiscal Year ended 30th June, 1878.

	Service. \$ ct	s. <b>\$</b>	cts
		-	
Maintenance of Lights.	&c., Above Montreal 73,175 11		
đo	Between Quebec and Montreal 15,996 09		
do	Below Quebec 96,904 58		
do	New Branswick 58,989 20	· 1	
<b>d</b> o	Nova Scotia, including Sable Island Humane	ł	
	Establishment 132,261 82		
фо	Prince Edward Island 16,686 66		
đo	British Columbia 18,948 78		
	# 00F 00	-412,962	24
	&c., Above Montreal		
do	Below Quebec 12,776 47		
ďο	New Brunswick 12,028 13		
đo	Nova Scotia		
do	Prince Edward Island 2,504 47		077
D		- 48,016	
	and Mates.		
Examination of Masters	of Canadian Shipping	. 4,249	
tegistration and Survey	cks and Casualties, &c	. 447	
nvestigations into wre	purchase of Life-boats, &c	. 500 . 4,071	
Tetas Dalla Anabas	purchase of line-totals, &c	1 22,011	
do Montreal.	**************************************	. 23,498	
habaa Obsannatany	**************************************	2,400	
t Tohn N R Cheerre	tory	. 2,400	
AcGill University do		. 500	
Magnetic do	Toronto	4,800	
Kingston do			
Meteorological do	1111-7-1111-1-1111-1-1111-1-1111-1-1111-1-1111		
Merine and Immigrant I	Iosnital, Quebec	., 0.,000	••
Marine Hospitals, Sick s	19,987 50		
241140 2200p. 3210, 2210 -		- 57,474	60
Jane Race dues		627	
Removal of Obstruction	s in navigable riversing disposal of saw-dust and mill rubbish in navi-	. 12	00
lost of enquiry respect	ing disposal of saw-dust and mill rubbish in navi-	·]	
gable waters		. 450	00
Remeasurement of Steam	ners in inland waters	. 1,087	
To aid in the construction	on of a telegraph line from Matane to Fox River	. 15,000	
	n Prince Edward Island and main land, Steamer	1	
"Northern Light".	**** **	.i 28,933	63
		. 32,682	
isheries	55,331 90	1	
Fish-breeding, &c	20,088 80	1	
Fisheries Protection Ste	amer 19,967 11	1	
	<u> </u>	- 95,387	81
Ialifax Fishery Commis	sion	. 87,000	
	Total expenditure	. 983,645	

John Tilton, Accountant.

Wm. SMITH,
Deputy Minister of Marine and Fisheries.

## SUPPLEMENT No. 1.

TO THE ELEVENTH ANNUAL REPORT OF THE

#### DEPARTMENT OF MARINE AND FISHERIES,

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1878.

# LIST OF LIGHTS

AND

# FOG SIGNALS

ON THE

# COASTS, RIVERS AND LAKES

OF THE

# DOMINION OF CANADA

ON THE

31st DAY OF DECEMBER, 1878.



OTTAWA:
PRINTED BY MACLEAN, ROGER & CO., WELLINGTON STREET.
1879.

# LIST OF LIGHTS AND FOG SIGNALS

ON THE

# COASTS, RIVERS AND LAKES

OF THE

## DOMINION OF CANADA,

UNDER THE CHARGE OF THE DEPARTMENT OF MARINE AND FISHERIES.

All the Lights below Quebec, on the River St. Lawrence, including Pointe de Monts, Cape Chatte and Egg Island, are extinguished on the 10th December, and those in the Gulf of St. Lawrence, Straits of Belle Isle, Northumberland Straits, Prince Edward Island and Gut of Canso, are extinguished on the 20th December, (with the exception of the Light on Bird Rock, which is kept burning till the 31st December,) and lighted on the 1st April of each year.

The Lights in the Bay of Fundy, and on the Southern and Eastern Coasts of Nova Scotia, and the Light on the South-West point of St. Paul's Island, are exhibited all the year round. Also all the British Columbia Lights.

The Lights above Quebec, and on the Lakes, are shown during the season of navigation.

WM. SMITH,

Deputy Minister of Marine.

Ottawa, 1st January, 1879. 3a—1½

#### Abbreviations and Explanations.

#### LIGHTS.

- F. Fixed, or Steady.
- FL. Flashing. Showing five or more flashes or eclipses alternately in a minute.
- F. & FL. Fixed light with a white or red flash in addition (preceded and followed by a short eclipse) at intervals of two, three, or four minutes.
- Rav. Revolving. Light gradually increasing to full effect and gradually decreasing to eclipse, at equal intervals of one, two, or three minutes, but occasionally as often as three times in a minute.
- Int. Intermittent. Suddenly appearing in view, remaining visible for a certain time and then as suddenly eclipsed for a shorter time.
- ALT. Alternating. Red and white light alternately at equal intervals, without any intervening eclipse.

#### ILLUMINATING APPARATUS.

- C. Catoptric, or by metallic reflectors.
- D. Dioptric, or by refracting lenses.
- Ord. Order or class of apparatus, numbered from the first to the sixth Order.

The Bearings are Magnetic, and are given from seaward.

The given distances from which the lights are visible are calculated from a height of fifteen feet above the sea, the elevation of the lights being in all cases taken as above high water.

The Geographical Positions of the Lights are approximate.

# LABRA

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
1	Belle [sle	Straits of Belle Isle, extreme S. point of Island.	<b>51</b> 5 <b>3</b> 0	55 22 15	One	F	White	
2	Anour Point	S.E. side of Forteau Bay.	<b>5</b> 1 27 35	56 50 55	One	F	White	•••••
3	Greenly Island.	On S.W.part of Island, Straits of Belle Isle.	<b>51 22</b> 35	57 10 50	One	Rev	and white	White min. Red i " White i " Eclipse 11 " Revolution 3 min.

## NEWFOUND

4	CAPE NORMAN	Straits o	of Belle	Isle	51	38	o¦.	55	53	<b>4</b> 0	One	Rev	White	Every 2 min
5	POINT RICH	Straits o	of Belle	Isle	50	41	50	57	27	<b>4</b> 0	One	Fl	White	Every 15 sec
6	CAPE RAY	On W. s	ide of c	аре	47	37	0	59	18	0	One	FI	White	Every 10 sec
							1							
					<u> </u>									
							1							

# GULF OF

7	St. Paul's I	s-On rock off N.E. point of Island.	47	13_50	60	8 20	One	F	White	
8	ST. PAUL'S IS	S.W. point of Island	47	11 20	60	9 40	One	Rev	White	Every minute.
•	BIRD ROCK	Magdalen Islands	47	<b>50 4</b> 0	61	8 20	One	F	White	.40000 040004

## DOR.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks,	No.
28	White, circular, clap- boarded.	470	62	1858	D, First order.	Visible from about N.W. by N., round by S. to E. A gun fires hourly during fog and snow storms. Depôt of provisions for shipwrecked mariners.	 
18_	White, circular	155	109	1855	D, Second order.	Fog whistle sounds for 10 seconds in each minute.	2
15	Fawn, octagonal wooden tower, with dwelling attached.	100	78	1878	C	Fog gun fired every half hour	3

## LAND.

20	White, hexagonal	138	40	1871	C	Visible from all points of approach seaward.	4
18	White, hexagonal	130	40	1871	c	Visible from all points of approach seaward.	5
20	White, hexagonal	;	41	1871	1	At a long distance flashes not observed.  A fog whistle is blown 10 sec. in each minute, leaving an interval of 50 sec. between each blast. Heard from 3 to 10 miles, according to the state of the atmosphere and wind.	6

# ST. LAWRENCE.

20	White, octagonal, wood.	140	40	1839	D, Third order.	Obscured between N. by E. ½ E. 7 and E.N.E.
<b>20</b>	White, octagonal, wood.	140	40	1831	D, Third order.	Obscured when bearing from S.S.E. to W. ½ N. A fog whistle on the S. side of the island, S.W. of Atlantic Cove, about ½ mile from the Humane, Establishment, sounds once for 5 sec. in each minute.
.21	White, hexagonal	140	50	1870	D, Second order.	Dwelling-house also white, 6 yds. from tower. A gun fires half-hourly during fogs and snow storms.

# GULF OF

No.	Name of Light.	Place.	Latitude N.			Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Mash.
10	Entry Island	On S.E. side of Island, Magdalen Islands.	47 16	30	61	41	<b>2</b> 0	One	F	Red	
11	AMHERST ISLAND.	S. point of Island, Magdalen Islands.	47 13	0	61	58	0	One	Alt	Red and white	Every 30 sec
12	ETANG DU NORD	W. side of Grindstone Island, Magdalen Islands.	47 23	30	61	57	0	One	Rev	White	Every 1½ min
	i	Bay of Chaleur		- 1					F	Red	
	ĺ	Near extremity of Spit Bay of Chaleur		- 1				j	F Alt		Every minute
16	CAPE DESPAIR	Bay of Chaleur	48 25	40	64	18	<b>2</b> 0	One	Rev	White	Every ½ min
17	Percé	On Whitehead Cape	48 30	30	64	13	0	One	F	White	• • • • • • • • • • • • • • • • • • • •
18	Gaspé	O'Hara Point Wharf, Basin.	48 49	53	64	31	41	One	F	Red	
19	Gasp <b>é</b> Bay Light ship.	At Sandy Beach Point, moored off extreme of Spit.	48 50	45	64	24	30	Two, red29 feet, and white 35 feet from deck.		Redon fore- m'st & white on main- mast.	
20	Gaspé Cape	· · · · · · · · · · · · · · · · · · ·	48 45	15	64	9	15	One	F	Red	······································
21	Cape Rosier	On Cape	48 51	57	64	12	0	One	F	White	:
22	Heath Point	East end, Anticosti Island.	49 5	20	61	<b>4</b> 2	30	One	F	White	***************************************
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## ST. LAWRENCE.—Continued.

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Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
12	White, square, wood, with dwelling attached.	90	28	1874	c	Light seen from all points, except from E.S.E. round to N., where it is intercepted by the high lands of the Island.	1
20	White, hexagonal			1871	C.,		11
20	White, square	200	28	1874	C	A steam fog whistle sounds two blasts of eight seconds' dura- tion in each minute, with an internal of 22 seconds between each blast. Heard from 3 to 12 miles, according to the state of the atmosphere and wind.	
12	White, wood	32	28	1872	C		13
13	White, square, wood	55	54	1870	c		14
12	White, square	56	27	1874	C		15
15	White, square, wood, with red roof.	90	18				
13	White, square, wood	138	20	1874		Fog horn here	
7		30 '		••••••	C		18
<b></b> .	Painted red, with "Light Vesself" on her side.			1871	C	1	19-
12	Square, wood, with dwelling attached.	350	30	1873	C	A steam fog whistle sounds for 10 seconds in each minute, leaving an interval of 50 seconds between each blast. Heard from 3 to 13 miles, according to the state of the atmosphere and wind.	20
16	White, circular, clap- boarded.	136	112	1858	D, First order.	A gun fires hourly during fog and snow storms.	21
15	White, circular, faced and ciapboarded.	110	90	1835	C	The lighthouse is always kept open to the southward of Cor, morant Point. Visible between bearings S.W. by W. to E. Depôt of provisions here for shipwrecked mariners.	22
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# GULF AND RIVER

		1	!	1	1 00 1	1	l	
No.	Name of Light.	Place.	Latifude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
23	BAGOT'S BLUFF	mile W. from S. Point, Anticosti Is-	49 4	62 15 1	One	Fl	W hite	Every 20 sec
24	South W. Point.	Anticosti Island	49 23 4	63 35 4	6 One	Rev	White	Every minute
25	WEST POINT	Extreme W. Point, Anticosti Island.	49 52 30	64 31 4	One	F	White	
26	Cape Magdalen	On Cape	49 15 40	65 19 30	One	Alt	Red and white	Every 2 min
27	MARTIN RIVEB	On S. shore, Gaspé County.	49 13 25	66 9 (	Оле	F	White	
28	Seven Islands	On Carousel Island	50 5 40	66 22 44	One	F	White	*****
:29	Cape Chatte	N.E. point of Cape	49 5 55	66 45 29	One	Rev	White	Every 30 sec
30	Egg Island	200 yards from S. end of Island.	49 38 0	67 10 (	One	Rev	<b>W</b> hite	Every 1½ min
.31	Point de Monts	About 1½ mile N.E. of Point.	49 19 35	67 21 55	One	F-	White	••••••
32	Matane	County of Rimeuski	48 52 0	67 33 (	One	F	White	*********
.33	LITTLE METIS POINT.		<b>48 41</b> 10	68 2 30	One	Alt	Red and white	Every minute
34	Manicouagan Lightship.	4 miles from land, the E. peninsula bear- ing N.E., and the W. peninsula bear- ing W.N.W.,moored in 25 fathoms water.		68 15	Two, one 27ft., and the other 24ft.from deck.	F	White	
35	FATHER POINT	Rimouski	48 31 25	68 27 40	One	F	White	**********
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## ST. LAWRENCE.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from is base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
14	White, hexagonal	75	54	1871	C	A fog whistle 100 yds. E. of light- house sounds for 10 seconds in every minute, thus making an interval of 50 seconds between each blast.	23
15	White, circular, faced and clapboarded.	100	75	1831	c	Visible between bearings of N.N.W., round by southward to S.E. by E.	24
	White, circular, clap- boarded.	112	109	1858	D, Second order.	A gun fires hourly during fogs and snow storms. Depôt of provisions for ship- wrecked mariners.	25
Red 15, White 20.	White, hexagonal.	147	54	1871	c		26
17	White, square, wood, with dwelling attached.		54	1876	c		27
20	White, square, wood, with dwelling attached.	200	39	1870 re- er'c'd 1875			28
18	White, square, wood,	120	26	1871 re- er'c'd 1875	i	Visible from all points of approach seaward.	29
15	Octagonal, surmount- ing dwelling.	70	35	1871	c		30
15	White, circular, clap- boarded.	100	75	1830	C	Depôt of provisions for ship- wrecked mariners.  A gun fires hourly during fogs and snow storms.	31
10	White, square, wood, with dwelling attached.	65	28	1873	o		32
15	White, square, with red roof and dwel- ling attached.	56	40	1874	c		33
12 <b>sa</b> 'h	Painted black, with "Manicouagan, Quebec," on stern.		.,	1872	D	A fog whistle sounds a blast of eight seconds' duration, with an interval of eight seconds, and then a blast of eight seconds, with an interval of two minutes twenty seconds.	34
10	White, square	43		1859	C	Pilots stationed here	35
. 1	1	ļ	i	11		•	

# GULF AND RIVER

No.	Name of Light.	Place.		Latitude N.			Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
36	PORT NEUF	Saguenay County	  48	37	0	69	6	0	One	F	White	
37	BIQUET ISLAND	Near centre of Island.	48	25	18	68	<b>5</b> 3	<b>2</b> 0	One	Rev	White	Every 2 min
38	RED ISLAND LIGHTSHIP.	N.E. from Island	48	6	30	69	30	20	Two, one on fore and other on main- mast.	F	White	
		On centre of Islet Entrance to Saguenay	1			İ				F F	Red White	

## SAGUENAY

41	TADOUSAC	Point Noir, entrance to Saguenay River.	48 7 35	69 43 0	One	F	Waite
42		608 yards N.W. ½ N. from light on point.			One	F	White
43	lst range	On S. side of river, entrance to Chicou- timi Harbour.		70 58 9	Two, 303 yds apart	F	White
44	2nd range	On N. side of river	48 <b>27 5</b> 6	70 58 38	Two, 255 yds apart	F	White
45	3rd range	On N. side of river	48 27 57	70 59 58	Two, 208 yds apart	F	White
46.	4TH RANGE	On N. side of river	48 27 41	71 0 39	Two, 238 yds apart	F	W hite
47	5TH RANGE	On S. side of river	48 26 27	71 1 32	Two, 128 yds apart	F	White
48	CHICOUTIMI WHARF.		**********		One	F	White
i	1	1	12	I	i •	, 1	

#### ST. LAWR NCE .- Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus,	Remarks.	No.
15	White, square, wood.	40	27	1873	C		36
17	White, circular, clap- boarded.	112	65	1844	C	A gun fires half-hourly during fogs and snow storms.	37
12	Red, with words "Red Island Light Ship" on each side	22	}	1871	{ C}	Moored in 10 fathoms water in a N.E. direction from Red Island, a little open to the N. of Hare Island, with a red buoy lying about ½ mile in a W.S.W. direction.  A steam fog whistle placed on the lightship sounds 10 sec. in every minute, with an interval of 50 sec. between each blast.	
12	Grey, stone, circular	75	51	1848	c		39
10	White, square, wood.	35	29	1872	C		40

## RIVER.

9		82	22	1875	C		D li sha fan laadin s zagala	41
9		117	22	1875	C		Range lights for leading vessels clear of Prince's Shore, Bar Reef and Vache Patch.	42
5	{	Upper 40 Lower 26	Upper 43 Low, 26	} 1873	C			43
4		Upper 41 Lower 25	Upper 40 Low. 27	} 1873	C			44
3		Upper 41 Lower 29	Upper40 Low. 25	} 1873	<b>9</b> ;••••••		These ten lights lead through	45
3		Upper 40 Lower 22	Upper 40 Low. 26	} 1873	C		the channel to Chicoutimi Harbour.	46
2 <del>]</del>		Upper 59 Lower 40	Upper 27 Low. 26	} 1873	c			47
	***************************************	******			' 	ز!		48
	1	1	1	13	•	1		

# RIVER ST.

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No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
49	GREEN ISLAND	On N. point of Islet	48 3 17	69 <b>2</b> 5 10	One	F	White	
<b>5</b> 0	BRANDY POTS	84 yards from S.E. end of Islet.	47 52 30	69 40 50	One	F	White	
51	Long Pilgrims	40 yards W. of centre of Island, and 108 yds. S. from water's edge.	1	69 44 20	One	F	White	
52	GRAND ISLE, KA- MOURASKA.	240 yards from N.E. end of Island, 160 yards from water's edge.		69 51 40	Оле	Rev	White	Greatest brilliancy once a minute.
53	POINT AUX ORIG-	On a Wharf, River Ouelle.	47 29 36	70 1 43	One	F	Red	• • • • • • • • • • • • • • • • • • • •
54	GOOSE CAPE OR CAP AUX OIES.	Charlevoix County	47 29 30	70 13 45	One	F	White	
55	BAY ST. PAUL	Charlevoix County	47 24 45	70 <b>29</b> 0	One	F	White	
56	Lower Traverse Lightship.	N.E. of St. Roch Shoals.	47 22 10	70 14 50	Two, one light 4ft. higher than the other.	F	White	•••••
57	Upper Traverse Lightship.	N. W. edge of St. Roch Shoals.	47 19 50	70 16 0	Two, main light 8ft. higher than th other.	F	White	
58	Stone Pillar	100 yards from S. point of Islet.	47 12 25	70 21 26	One	Re▼	White	Every 1½ min
59	Algebnon Rock	In channel S.E. of Stone Pillar.	47 12 25	70 21 26	One	F	White	
60	Crane Island	la miles from W.point of Island.	47 3 30	70 32 30	One	F	White	**** * ************
61	CAP ROUGE	Between Traverse Spit and Brulé Bank.	47 7 45	70 40 30	Two	F	White	*******
62	St. Francis		47 0 12 47 0 24			F	White	***************************************
•	,	•	14	•	•	,	•	

## ST. LAWRENCE.

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Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
13	White, octagonal, clapboarded.	60	40	1809	c	A gun fires every half hour during fogs and snow storms.	49
10	Drab colour, brick	78	39	1862	D, Fourth order.		50
12	Drab colour, brick	180	39	1862	D, Fourth order.		51
18	Wood	166	39	1862			52
8	White, square, wood.	34	20	1875	C		53
12	White, wood, with dwelling attached.	48	42	1876	c		54
10	White, square, wood, with dwelling at- tached,	36	30	1876	c		55
10 ea'h	Red with words "Traverse Light- ship" in white letters on each side. Two masts.		27 & 23 above deck.	1836	D	A red ball on the mainmast will be lowered, and one light only shown, if from any cause the lightship shall move from her station.  A steam fog whistle placed on lightship sounds 12 sec. in each min., with an interval of 48 sec.	56
6 ea'h			••••	1871	c	Should the vessel be out of place, the light on the foremast alone will be exhibited, and during the day the ball on the foremast head will be taken down.  A bell tolls during thick weather, fogs and snow storms.	57
13	White, conical, stone	68	38	1843	c		58
112	White, square, wood, on pier.	36	32	1878		Corrugated mirrors reflecting lights from an auxilliary tower on the Pillar Rock up and down channel.	59
10	Wood	44	37	1862	C		60
11		{ 230 170	34 24 }	1875	C	North Channel Traverse Range Lights.	61
11	***************************************	{ 110 30	30 28	1875	C	North Channel Traverse Range Lights.	62
3	ì	•		15	•	*	

# RIVER ST.

No.	Name of Light.	Place.		Latitude N.		Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval. of Revolution or Flash.
63	BELLECHASSE	E. end of Island	46	56 (	0 70	46	6 0	One	F	White	
64	PORT ST. JOHN	On a wharf, Island of Orleans.	46	55 20	) 7(	53	30	One	Rev	White	Every 30 sec
-65	POINT ST. LAW- BENCE.	Island of Orleans.	46	51 50	71	2	40	One	F	White	
66	Montée du Lac	Cap Rouge, above Quebec.	47	7 40	70	42	30	Опе	F	White	
67	ST. ANTOINE	S. shore	46 3	39 <b>4</b> 0	71	36	10	One	F	White	
68	St. Croix	On shore near high water mark, and I mile N. of Church.	i	37 45	71	44	10	One	F	White	
69	Port Neuf	On N. shore, armile off the river.	36 4	1 48	71	52	10	Two, S.W. and N.E., nearly180 yds apart	F	White	
70	Platon Point	On S. side, 1½ miles below Richelieu Is- land.	46 3	9 13	71	53	3	· ·	F	White	*************************
71	RICHELIEU.	Centre of Island	46 3	8 30	71	54	51	One	F	White	******************
72	Lotbinikes	Upper	46 3	7 10	71	<b>5</b> 6	21	Two, 1,300 yds apart	F	White	***************************************
73	Langlais Point.	On S. Shore, } mile below Great Chêne River.	46 3	5 5	71	59	35	One	F	White	***************************************
74	Cape Charles	On Cape	46 3	3 <b>3</b> 9	72	4	15	Two, N. 67° W.,80 yds apart	F	White	
75	Grondines	N. shore	46 3	5 49	72	4	12	Two,S. 66° W., 1,350 yds apart	F	<b>W</b> hi <b>t</b> e	***************************************
	i										
76	ST. PIERRE DES BECQUETS.	S shore, summit of St. Pierre Point.	46 30	28	72	12	30	One	F	White	#12007444 6000 106g 1000
77	BATISCAN	N. shore, 11 miles below Batiscan Church.	16 30	16	72	14	52	Iwo,S. 73° W., 222 yds,apart	F	White	20 20 1 20 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2
•	•	•		16			•	. •	•	•	

# LAWRENCE.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
13	Wood	70	30	1862	C		63
15	White, square, wood.	27	23	1874	C		64
8	White, wood	38		1869	c		65
10	White, square, wood.	175	30	1870	C	, ,	66
10	White, wool	96		1858	C		67
6	White, wood	30	20	1842	C	A small light to assist in keeping in channel for some distance up and down the river.	68
-ea'h	White, both stone, the lower lantern on roof of dwelling	120	}	1842	C	Lead up Richelieu Channel to the light on Richelieu Island.	69
12 • <b>ea'</b> h	White, octagonal, wood.	{ 152 130	24 7	1816 1824	} c	Lead up Richelieu Rapids	70
•••••	Octagonal, stone	27		1816	C	This light and the lights on Platon Point are very nearly in the same line of bearing, namely, N. 73° E.	
8	White, square, {	Upper 85 Lower 23	$\frac{17}{17}$		C	To enable vessels to go through Richelieu Channel.	72
5	Wood	35	8	1844	C	To show off Battures des Gron- dines, and to avoid Battures Cordin, and as a steering point for Richelieu.	73
ea'h	Wood	110	20	1856	C	Lead to and from Cape à la Roche and Cape Chatles, and answer as a steering point through Richelieu River.	
ea'h	White, octagonal, wood.	50 &c 25	30	1857	C	To lead off Cape a la Roche Levrard. (N.B.—It is intended to change the lights between this and Montreal during the spring of 1879 to suit the new 25-foot dredged channel.)	
5	White, octagonal,	85	12	1814	C	To indicate the widest berth off Cape à la Roche.	76
	White, octagonal, weed.	{ 39 20	31 11 }	1844	C	To lead through Levrard and clear Batture St. Ann on S., and Pouillier on N.	77
ı	3 <b>4</b> 2		. 1	17	<u> </u>	,	ſ

# RIVER ST

No.	Ne	ame of Light.	Place.		Latitude N.			Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
78	Cr	rrouille Point	On beach	46	27	12	72	16	10	One	F	White	
79	Сн	AMPLAIN	N. shore, near Cham- plain Church.	46	24	34	72	20	32	One	F	W hite	
<b>8</b> 0	CA		Lower light, N. shore, 3 miles below Cape.	46 S.	23 lig	46 ht.	72	27	18	Two, S.60° W., 200 yds apart	F	White	
81		EINE.	Upper light, N. shore, 2 miles below Cape.	46 W	<b>23</b> lig	16 ht	72	28	38	Two, S.85° W., 235 yds apart	F	White	*****
82	Por	rt St.Francis	S. shore, high light on a pier.	46 W	16 lig	20 ht	72	37	15	Two, S.76° W., 3,240 yds apart	F	White	
83	Po	INT DU LAC	N. shore	46	16	50	72	40	22	One	F	White	***************************************
84		EAST LIGHT-	In Lake	46	15	56	72	42	18	One	F	White	••••••••••••••••••••••••••••••••••••••
85	lze l	CENTRE LIGHTSHIP.	2} miles S.S.E. from Rivière-du-Loup.	46	11	39	72	<b>5</b> 3	20	One	F	<b>W</b> hite	·-····
86	Sr. Peter'	West Light- ship.	N. side of channel, N.E. by N., 3 miles from Flat Island.	46	9	39	72	56	50	Опе	F	White	······································
87		Isle aux Raisins.	{ On Island { S. side of Island								F F		
88	STO	ME OR ISLE À A PIERRE.	On E. side of Island	46	5	54	72	59	40	One	F	White	
89	Isli	e de Grace	On Island	46	4	13	73	2	34	One	F	White	
90	Son	EL	On Richelieu Com- pany's Wharf.	<b>46</b>		<b>30</b>	73	7	18	Two, 66 yds apart	F	Red	*******

## LAWRENCE.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
6	Lantern on a tripod				•••••	To indicate point	78
4	White, octagonal, wood.	30	10	1844	C	Steering point for lower point of Bay of Champlain.	79
4 eռ՝ հ	White, octagonal, wood.	{ 53 33	13 10 }	1843	C	To clear Batture Bigot	80-
6 ea'h	White, octagonal, wood.	{ 55 35	30 10}	1843	C	To clear Pouillier Provencher	81
3 ea'h	White, uctagonal, wood, high and low.		21 4	1849	C	The lights in one with the eastern light vessel on lake lead up through the dredged canal, S. 70° W. High light on a pier, and removed in winter.	Í
12	White, octagonal, wood,	71	24	1843	C	Shows the turn of channel at Point du Lac.	83
6	Red	15	8	<b></b>	c	Removed at the approach of win- ter on account of ice. On S. side of Petite Traverse of Rivière-du-Loup.	1
6	Red	15	8	1816	o	Removed at the approach of winter on account of ice. To indicate the turn of the channel, and leads to No. 2.	i
	Red	15	8	1828	c	In connection with Isle a laPierre, and bearing in line with No. 1, and to avoid Battures St. Fran- çois and à la Carpe.	
6	RedRed	30	<b>2</b> 0	1843 1863	} c	To lead from the entrance of the Batture of Lake St. Peter to No. 1 light-vessel up and down.	87
6	Red	30			C	Indicates entrance to channel, and leads to No. 1.	88
8.	White, octagonal,	<b>28</b>	25	••••	C	Indicates point	89
3 or 4		{ 39 31	37 } 29 }	1863	C	Indicate barbour	90-
	$3a-2\frac{1}{2}$	,		1	· '	•	•

# Sessional Papers (No. 3.)

# LIST OF LIGHTS ON THE COASTS, RIVERS AND

# RICHELIEU

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Golour of Light.	Interval of Revolution or Flash,
91	North Halfway Point.	W. side of river, about 5 miles above St. John's.		•••••	Two, one on shore S.of back light.	F	<b>W</b> hite	
·92	St. Valentine	W. side of river, ½ mile below Isle aux Noix			Two, one on bank of river E.of back light.	F	White	
93	Lacolle	W. side of river		***************************************	Two, one on crib on bank of riverN.E. of back light.	********	********	****** 150**** > > * * * * * * * * * * * * * * *
94	Ase Island	On S. end	45 1 20	73 25 0	One	F	White	*****************
95	BLOODY ISLAND	On pier, about 3 mile above Ash Island.	45 1 0	73 24 50	One	F	White	******

# RIVER ST.

96	Lavaltrie	S. side of Island	45 S.	<b>52</b> 55 light.	73	16	0	Two, S.38° W., 320 yds apart	F	White	
97	Traverse	2} miles above Con- trecœur.	45 N.	49 52 light.	73	17	0	Two,S. 28° W., 1,500 yds apart	F	White	**********
98	ISLE AUX PRUNES	Opposite Verchères	45	<b>46</b> 50	73	22 3	30	One	F	White	
99 1	Refertiony	å mile below Répen- tigny.	45 N. 1	45 2 light.	73	26	8	Two, S. 22° W., 170 yds apart	F	White	
100	Irle à la Bague.	<b>On</b> Islet	45	44 14	73	<b>26</b> ]	15	One	F	White	*******
101	St. Taánha	On Island		41 22 light.		27 4	10	Twe,S. 50° W., 220 yds spart	F	White	2010014 010000000 100000
•	•	•	•	20	•		•	•		• •	•

## RIVER.

Milesseen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet in centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
*****	•••••	•••••		1873	C	These lights range up the river, and, in line, indicate the channel to St. Valentine.	
	White, octagonal, wood.		• • • • • • • • • • • • • • • • • • • •	1873	C	These lights range across the river, and, in line, indicate the channel over the shoal at the foot of Isle aux Noix.	
	White, octagonal, wood.	{ 18 7	22 10 }	1871	C	These lights range down the river, and, in line, indicate the channel to Sturgeon Point.	93
4	White, square, wood, with dwelling at- tached.	44	42	re- erec'd 1875	C	These two lights form a range	94
4	White, wood	12	10	re- erec'd 1875		<b> </b> 	95

## LAWRENCE.

	Red	{ 21 13	17 9	1831	io I	Lead to channel called Flat	96
	White, square, wood.	· · · · · · · · · · · · · · · · · · ·		1857	C	To lead into Lavaltrie Channel and Isle Bouchard, and indicate the new channel to be kept in line till Lavaltrie Lights are brought to bear.	
•••••	White, octagonal, wood.	********************************		1866	C	To clear the Island	98
4 ea'h	White, wood	{ 20 14	26 } 14 }	1843	C	To lead through Isle à la Bague Channel, and to avoid Pouillier on N. and shoal on S.	99
4	White, octagonal, wood.	24		1831	C	To indicate the Island being ex- tremely low land. Removed in winter on account of the ice.	100
4 ea'h	White, square, wood.	•••••			c	Lead to entrance through Ver- chères Channel up and down the river.	102

### RIVER ST.

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
102	POINT AUX TREM- BLES.	N. shore	45 38 26 E. light.	73 29 20	  Two,S. 46°   W., 600   yds apart	ĺ	White	
103	Montreal	On Albert Pier	45 30 47	73 33 19	Two, back light 73 yds S.W. } S. from fr'nt light		Red	

### LAKE MEM-

104	Witch Island	On a shoal, ½ mile S.W. from Magog Railway Wharf.		Опе	F	White	****** ********************************
105	BLACK POINT	On W. side of lake, 3 miles S.W. from Witch Island.		One	F	White	••••••
106	Wadleigh's Point.	On W. side of lake, 4 miles S.W. ½ S. from Black Point.	 	One	F	White	
107	CHATEAU DA SILVA.	At Hotel Wharf, W. side of lake, 5 miles S.W. by S. ½ W. from Wadleigh's Point.		One	F	White	***************************************
108	Molson's Island.	S.W. point of island, E. side of lake, 2 miles S.E. by S.from Chateau.		One`	F	White	
109	LEAD MINES	West side of lake, 4 miles S. by W. from Molson's Island.		One	F	White	

## RIVER ST.

110	Lachine	On end of pier at en- trance to canal.	45 26 50	73 42 0	One	F	White	*********
	•		22	-				

### LAWRENCE - Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
	High and low, white, octagonal, wood.	<b>53</b> 25 }		1846	C	To lead through the channel between Point aux Trembles and Varennes, up to Long Point. (N.B.—It is intended to rearrange the river lights below Montreal during the spring of 1879 to suit the new dredged 25-foot channel.)	
ea'h	White, octagonal, wood.	Front 36 Back 29	31 }	1830	C	Indicate the deepest channel to and from the harbour.	103

#### PHREMAGOG.

4	Lantern on a post			1878	C	Not under Marine Department	104
8	White, square, wood.	24	22	1878	C		105
:8	White, square, wood.	30	22	1878	G		106
:8	White, square, wood.	20	22	1878	c		107
8	White, square, wood.	28	.22	1878	  C		108
·8	White, square, wood.	20	22	1878	C		109

#### LAWRENCE.

6 White, square, wood.	23	17	1849	c		110
a 1		1	റെ	•	'	,

### RIVER ST.

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
111		Lightship No. 1, <sup>4</sup> mile above Lachine.	  45 26 30 	73 42 10	One	F	W hite	••••••
112	LAKE Sr. Louis	Lightship No. 2, $2\frac{3}{4}$ miles above Lachine.	45 25 40	73 44 15	One	F	  White	
113	CHATEAUGUAY	Lightship No. 3, 4½ miles above La-chine.	45 24 30	73 45 30	One	F	White	•••••
114	Beauharnois	S. side of lower entrance to canal.	<b>45</b> 19 40	75 54 30	Two, 414 yds apart, E.N.E. ½ N., and W.S.W. ½ S.		W hite	•••••••

### RIVER

		channel, midway between Point Claire light and lightship No. 1.							One	•	White	
1!6	POINT CLAIRE	On a p er N. of chan- nel, about 1 mile S.E. of village.		26	0	73	48	10	One	F	White	
117	CARON'S POINT	Two miles below St. Anne Lock, N. side of river.		24	46	73	54	41	One	F	White	*******
118	ISLE PERROT	On S side of new channel, below St.	45	24	20	73	54	45	One	F	White	•••••••
119	STE. ANNE DU	On pier at S.E. end of new channel crib- work.		24	15	73	<b>5</b> 5	<b>5</b> 0	One	F	White	***************************************
120	BOUT DE {	On N.W. end of new channel cribwork, about 3 mile below the lock.	1	24	30	73	56	5	One	F	White	
121	Point à Cadieux	Lake of Two Moun- tains.	45	26	25	74	0	<b>5</b> 0	One	F	White	***************************************

### LAWRENCE.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
6	Red, circular, iron, white tower, red lantern.	20		1849	C		111
6	Red, circular, iron, white tower, red lantern.			•••••	c		112
6	Red, circular, iron, white tower, red lantern.	<b>2</b> 0		1849	C	······································	113
10	White, square, wood.	<b>50 40</b>	27 27 }	1850	C	In one lead to Chateauguay Lightship.	114

## OTTAWA.

9	White, square, wood.	33	20	1874	C	Now being rebuilt	115
, 7	White, square, wood.	29	25	1860 re- built 1874	C	; ,	116
11	White, square, wood.	28	29	1874 re- built 1878	C		117
11	White, square, wood.	30	29	1878	C		118
10	White, square, wood.	24	24	1878	C	These three lights lead through the new dredged channel below St. Anne Lock.	119
10	White, square, wood.	24	24	1878	C		120
8	White, square, wood, with dwelling at- attached.	30	32	1875	C		121

### RIVER

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
122	POINT AUX AN-	On pier, about 400 yards off the point.	45 13 0	74 15 0		F	White	
123	ST. PLACIDE	N. side of river	<b>45 2</b> 0 0	74 10 0	Two, front light 266 yds S.W. by W.¼W. fr'm back light.		White	
124	L'Orignal	On point	45 42 0	74 46 15	One	F	White	**:******
125	McTavish Point.	On pier	45 50 0	74 52 30	One	F	<b>White</b>	
126	WAY SHOAL	On low shore, N. side of river.	45 <b>25</b> 0	75 37 0	One	F	White	
127	GREEN SHOAL	On pier, S. side of channel, opposite East Templeton, 7 miles below Ottawa City.	45 <b>29</b> 30	75 31 20	One	F	White	
128	Morris or Vic- toria Island.	Lake des Chats	•••••		One	F	White	
129	Campbell Island	Lake des Chats, 12 miles above Vic- toria Island.	  ••••••••••	 	One	F	White	********
130	DEEP RIVER ISLET	At mouth of river		<b></b>	One	F	White	· ······

#### . RIVER ST.

131			1st range light, S. side 45 15 30 74 9 30 One F White pier, about 1½ mile from guard lock, at
	318.		upper entrance to Beauharnois Canal.
132	ST. FRANCIS.	Knight's Point.	2nd range light, on
133	LAKB E		3rd range light, N
134		GROSSE P'NT OR VALLEY- FIELD.	Main light, N. side of 45 15 35 74 9 25 One F White White White 304 yards W. of 3rd light.
			26

### OTTAWA.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illumi- nating Appara-	Remarks.	No.
6	White, square, wood.	22	27	1 <b>87</b> 3	C		12
6	Brown, square, wood	{ 50 25	26 20}	1874	c	Range lights, showing up stream	123
6	White, hexagonal	45	30	1871	C		124
•6		35	30	1871	o		125
8	Alternately red and white, hexagonal, wood.		25	1870	C		126
B	White, square, wood.	36	17	1860	c		127
8	White, square, wood.	•••••	29	1873	c		128
.8	White, square, wood.	*****	29	1873	c		129
8	White, square, wood.		29	1873	C		130

### LAWRENCE.

3	Red, square, wood	•		1848	C.,	When these two lights are brought in one after leaving the canal, they are to be steered for until the two on	
3	White, square, wood			1850	c	the north side of the channel are brought into one.	132
.3	White, square. wood			1850	C		133
<b>æ</b>	Red, square, wood	······ ,	*****	1846	C	These two lights passed close on the S. lead into deep water	134
				27			

### RIVER ST.

						_							-
No.	Name of Light.		f Light. Place.		Latitude N.			Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
135		Côteau Landing.	On Government pier	45	15	40	74	13	0	Опе	F	Red	······
136		McKir's Point.	N. shore, nearly op- posite Port Lewis lignt.	45	12	25	74	19	10	One <u>'</u>	F	<b>W</b> hite	***************************************
137	018.	PORT LEWIS.	On McKillop's Point.	45	11	30	74	17	0	One	F	White	
138	FRAN	CHERRY Is-	S. side of N. channel.	1							F	l i	******
139	LAKE ST.	LAND.  LANCASTER  BAR.	On a pier in the lake, S. side of channel, 3 miles below Lan- caster village.	l	8	20	74	25	40	One	F	White	
140		Lancaster	On a pier, N. side of channel, 1½ mile S.W. from Lancaster village.	1	6	40	74	30	0	One	F	White	
141		Hamilton Is-	Most south-easterly point.	45	4	<b>2</b> 8	74	32	27	One	F	White	****************
142	1 8	ENGARRY OR STONEHOUSE COINT.	N. shore of river	45	3	32	74	36	45	One	F	White	
143	Co	RNWALLCANAL	S. side of upper en- trance.	45	1	0	74	55	25	One	F	White	****** ,***** , 14******
144	WI	ndmill Point	About 1½ mile below Prescott.	44	46	20	75	28	40	Опе	F	<b>W</b> hite	``````````````````````````````````````
145	Co	LE SHOAL	On pier, 5 miles W. of Brockville, 3 mile from N. shore.	44	34	15	75	45	40	Опе	F	<b>W</b> hite	,4446, 7449N497 - 448448 <del>0</del>
146		enadier Is- and.	S.W. point of island, N. side of channel, 2 miles below Rock- port.	ļ	24	30	75	54	10	One	F	<b>W</b> hite	
147	Lin	doe Island	N.W. point of island, S. side of channel, 5 miles W. of Rock- port.	,	22	35	76	0	3	Опе	F	W hite	***************************************
148		nanoqui Nar- ows.	N.E. end of Little Stave Island, S. side of channel, 5 miles below Gananoqui.	44	20	55	76	4	35	One	F	White	***************************************
149	-	KSTRAW HOAL.	On a pier, N. side of channel, 2 miles be- low Gananoqui.	44	20	45	76	6	50	One	F	White	· · · · · · · · · · · · · · · · · · ·
•	1	•	,		:	28			ı		1		

## LAWRENCE.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
10	White, square, wood.	29	28	1848 tower erec'd 1877	C	Visible from E.N.E. ½ E. by S'd. to W. ½ N.	135
10	White, square, wood.	36	30	1847 re- built 1877	C	Midway between Côteau Landing and Cherry Island.	136
.10	White, square, wood.	35	22	1875	C.,		137
.10	White, square, wood.	40	30	1847	c		138
8	White, square, wood.			1849	c		139
8	    White, square, wood.	20	20	1844	c		140
10	White, square, wood.	42	36	1873	c		141
10	White, square, wood, with dwelling attached.	42	36	1873	C		142
		<b></b>		1865	c	In charge of the Superintendent of Public Works.	143
15	White, circular, stone	92	62	1873	c	,4400000 ,	144
6	White, square, wood.	33	31	1856	C		145
.10	White, square, wood	55	37	1856	C		146
7	White, square, wood	40	26	1856	C		147
7	White, square, wood	44	37	1856	c		148
-900100	White, square, wood	31	29	1856	σ		149
	. 1	1	i	25	1	11	1

## RIVER ST.

No.	Name of Light.	Place.	Lotitude M	manina in		Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Plash.
150	Spectacle Shoal	On a pier, N. side of channel, 14 mile W. of Gananoqui.	44	4 10	76	10 4	0	One	F	White	
151	RED HORSE ROCK	On a pier, S.E. side of channel, 1 mile above Spectacle Shoal.	44 1	9 30	76	11 2	0	One	F	White	
152	BURNT ISLAND	S.E. part of island, N. side of channel, mile above Red Horse Rock.	44 1	9 0	76	11 3	5	One	F	White	
153	Wolfe Island	On Quebec or E. point	44 I	4 37	76	10 5	5	One	F	White	***************************************
154	Brown's ob Knapp's Point	Wolfe Island	44 1	5 12	76	23 2	10	One	F	White	

### LAKE

155	Kingston	City clock	44	15	15	76	28	30	One ,	F	White	! 
156	Snake Island	On pier on bar, N. side of channel, 5 miles W. of Kingston.		11	30	76	37	<b>4</b> 0	One	F	Red	
157	NINE MILE OR GAGE POINT.	S.W. point, Simcoe Island, 9 miles W. of Kingston.		9	20	76	38	40	One	F	White	
158	Pigeon Island	4 miles from head of Wolfe Island.	44	4	10	76	38	10	One	Re <b>v</b>	White	One minute and 10 seconds.
159	OUTER DRAKE OR FALSE DUCKS.	E. point of island	43	57	0	76	49	0	One	F	White	
160	POINT PLEASANT	Entrance to Bay of Quinté.	44	6	30	76	55	30	One	F	White	······································
161	Telegraph Is-	Bay of Quinté	44	10	20	77	9	45	One	F	White	*****************
162	POINT PETER	On point	43	51	0	77	13	40	One	Rev	White	Every minute and 40 secs.
163	SALMON OR WICK- ED POINT.	On point	43	52	o	77	19	45	One	F	Red	·····
164	SCOTCH BONNET OR EGG ISLAND	On small island, one mile S.W. of Nichol- son's Island.	<b>4</b> 3	54	0	77	38	0	One	F	White	,
	30											

### ST. LAWRENCE.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
9	White, square, wood	28	26	1856	c		150
9	White, square, wood	28	26	1856	C	These six small lights mark the channel through the Thou- sand Islands, between Brock-	151
10	White, square, wood	64	26	1856	C	ville and Kingston.	152
6	White, square, wood	,		1861	c		153
10	White, square, wood	28	20	1874	C		154

## ONTARIO.

Wooden tower on stone building.	,,	96				155
Square, stone	35	35	1858	c		156
White, circular, stone	45	40	1833	C	A fog bell sounds four times each minute in thick and foggy weather and snow storms, dur- ing navigation. Heard a dis- tance of 4 miles.	i (
White	46	41	1870	C		158
White ,	68	62	1828	C		159
Octagonal	*********	52	1866	С		160-
White, square tower on dwelling.	46	41	1870	c		161
Circular, stone	62	60	1833	C		162
White, square tower on dwelling.	40	, 30	1871	C		1 <b>6</b> 3 -
White, stone	51	54	1856	C		164
	white	Square, stone       35         White, circular, stone       45         White	Stone building.   Square, stone   35   35   35     White, circular, stone   45   40     White	Stone building.   Square, stone   35   35   1858	Square, stone   35   35   1858   C	Square, stone   35   35   1858   C

### LAKE

No.	Name of Light.	Place.		Latitude N.			Longitude W.		Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
165		E. point	43	59	30	77	45	30	One	F	White	
166	PRESQU' ISLE	Salt Point	44	0	20	77	46	0	One	F	White	
167	[	On pier in harbour		••			••••	• • • ·	One	F	Red	
168	Weller's Bay	Near W. end of Quinté Carrying Place.	44	2	0	77	40	40	Two	F	Front one red, back one white	
169	COBOURG	Pier head	43	57	10	78	14	0	One	F	White	**************
170	PETER ROCK OR GULL ISLAND.	W. by S., 4 miles from Cobourg.	43	56	10	78	17	0	One	F	White	***************************************
171	PORT HOPE	Pier head, E. side	43	56	15	78	20	0	One	F	Red facing south, white facing E.&W	
172	DARLINGTON	Pier head	43	52	30	78	<b>4</b> 3	20	One	F	White	£0-400001 +141 101000000
173	OSHAWA	Pier head	43	52	0	78	52	30	One	F	White	
.174	<b>W</b> нітву	W. pier	43	51	0	79	1	30	One	F	White	*************
175	PICKERING OR LIVERPOOL.	E. pier head	43	48	45	79	7	20	One	F	White	
176	GIBRALTAR POINT	S.W. side of point, 13 mile S. of Toronto.	43	37	0	79	28	30	One	F	White	***************************************
.177	TORONTO	One on Queen's Wharf W. part, the other on arm of pier.	43	38	20	79	28	45	T₩0	F	White	*********
178	Port Credit	On pier	<b>4</b> 3	33	30	79	<b>4</b> 0	10	One	F	White	
179	OARVILLE	Pier head	43	26	45	79	45	20	One	<b>F</b> .,	White	******************************
180	Burlington Bay	S. pier of entrance	<b>4</b> 3			79	53	30	Two	F	White	{
				:	32				•			

### \*ONTARIO.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remark <b>s.</b>	No.
18	White, octagonal, stone.	[ . 67	63	1840	c		165
4	White, square, wood	22	27	1851	c	The harbour light, kept clear of Salt Point Light to the	16 <b>6</b>
- ••• ••••	White, square, wood	29	30	1879	C	north, leads through the new channel into the harbour.	
	White, open frame- work.	{ 29 43	27 37 }	1876	c	Back tower 160 yds. from front one.	168
			,				
8	White, square, wood	20	16	1844	C	Not under Marine Department	169
10	Octagonal, stone	45	48	1840	с	On afrock off the point	170
4	***************************************		••••	•••••		Not under Marine Department	171
4	On a stone house			••••		Not under Marine Department	172
wa e e e e		·*************************************		1863		Not under Marine Department	173
5	Square, wood	12	8	1844		Not under Marine Department	174
<b>40000</b>	***************************************			1863		Not under Marine Department	175
18	Hexagonal, stone	66	62	1820		A fog bell here	176
6	Red, square, wood	22	6	1838		On the arm of the pier to be passed closely on port hand.  Harbour light.	177
				1000	C	Not under Marine Department.	178
<b></b>			·	1000	_	Not unuer Marine Department	
12	Octagonal, wood	42	36	1863	C	***************************************	179
15	High, light stone building.	60	54	1838	} c	***************************************	180
4	White, small light, wood.	18	14	1845	J ··	,	:
,	303	•	. :	33	ı		•

No. Name of Light.

181 PORT DALHOU-

BIE.

#### LIST OF LIGHTS ON THE COASTS, RIVERS AND

						LAKE
Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.

One ......

# LAKE

Rev White Every minute ...

White .....

-	1	· · · · · · · · · · · · · · · · · · ·	i	1	j	1	1	1
182	FOX ISLAND	*********	44 19 30	79 30	0 One	F	White	••••••••
			!	į	1			
			i	1	1	ĺ	1	

On end of new pier, ..... about 300 feet S. from main light.

### LAKE

		Western end of Welland Canal, W. pie		53	0 79	19 :	30	One	F	White	
183	PORT COLBORNE	E. side of entrance on pier, 1,130 fee N.E. & E. from main light.	t	•• ••••	.	• • • • • • •		One	F	Red	
184	MOHAWE ISLAND	Between Port Col borne and Por Maitland, one mile S.W. of mainland.	t)	50 10	79	37	0	One	Re▼	White	Every 3 min
185	PORT MAITLAND	W. pier	42	51 40	79	39 5	io!	One	F	White	
186	PORT DOVER	<b>₩</b> . pier	42	47 30	80	16 3	ю	One	F	White	
187	Long Point or North Form- LAND.	E. extremity	42	33 C	80	9 1	0	One	Rev	White	Every minute
188	LongPoint.West End.	near the old channel		• •• ••••	-	*****	. .	•••••••••••••••••••••••••••••••••••••••	••••••	*********	
189	PORT BURWELL OR BIG OTTER CREEK,	333 yards in shore	42	<b>39</b> 0	80	54 3	0	One	F	White	420004 00551 + 54464400
190	Port Bruce or Cather Creek		42 3	39 20	81	5 4			F	White	*********
•	`	· ·	-		34			_		•	•

### ONTARIO.—Continued.

Milesseen in clear Weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
10	White, wood		44	1852		Eastern entrance to Welland Canal.  In course of construction	181
						İ	

### SIMCOE.

12	Brown, square	46	39	1879	o	***************************************	182:
ł			l	l	i	•	

### ERIE

12	Open wood frame	70	60	1852	C	1	100
*****	White, square, wood	38	27	1878	C	Fog horn sounds	183
10	White, circular, stone	64	60	1848	o		184
10	White open frame, wood.	51	41	1 <b>84</b> 6	o	Grand River entrance	185
8	White, hexagonal, wood.	20	20	1846	o		186
<b>2</b> 5	Octagonal, wood	<b>6</b> 5	60	1843	o		187
*****		··········		********		In course of construction	188
12	Octagonal, weed	96	46	1840	C	***************************************	189
*****	On a pole	# 0040 to	·····	1876	c	Not under Marine Department	190
	3a-31	i	•	35	i	,	1

### LAKE

-		<del></del>									
No.	Name of Light.	Place.	Latitude N.			Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
191	RONDEAU HAR-	Main on S. end and range light on N. end of E. pier, at entrance to harbour		5 35	81	54	25	Two, 260 yds apart	}	and white	Every 1½ min
192	PORT STANLEY	W. pier	42 40	0	81	17	0	Оце	F	White	
193	Middle Island	Between Pelee and Kelly's Island.	41 40	58	82	40	15	One	F	Red	
194	Pelee Island	N.E. point	41 50	20	82	45	30	Опе	F	White	
195	Pelee Spit	On caisson, 2½ miles S. from extreme end of point from N. shore.	E	20	82	38	0	One	Rev	White	
196	Bår Point	Lightship	41 59	40	83	6 :	20	Two, one eight feet, above the other.		Red and white	
									i		
			<del></del> -								

### RIVER

197	Amherstburg	Bois Blanc Island	42	6 0	83	13 30	One	F	White	
198	Bois Blane Is- Land.	***************************************	42	6 1	83	6 34	Two	F	One white and one red.	

### LAKE

199	Thames River	Mouth of shore.	river, S.	42 18 40	82 36 0	Two,S.'26° E.,and N. 26° W., 450 yards apart.	F	White	
(				1					

#### ERIE -Continued.

lear		et of lan- bigh	feet of from to vane rn.		and imi- ara-	!	Ī
Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet centre of la tern above hi	Height in fee building fits base to wood lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
16 10	White, square, open framework.	70 34	64	1876	O		191
4	Lantern	20	20	1844	c		192
12	White, square, wood	70	49	1872	c	1	193
9	White, circular, stone	45	40	1833	c	W. by N. clears Pelee Shoal	194
20	Octagona	76	61	1861	σ		195
10	Red, with words "Bar Point Light- ship" on each side in white letters.		48 and 40 from deck.	1875	C	Anchored in 3 fathoms water, 100 yards to southward of W. end of reef, and distant from Amherstburg Light 5½ miles, bearing nearly due S., and from Bar Point S. ½ W. Vessels passing should not go within ½ mile of Lightship, and vessels of heavy draft should pass to southward. A bell rung during thick and foggy weather.	196

### DETROIT.

18	Circular, stone	56	40	1837	C		197
••••		{ 26 38	}	1875	C	One tower on N.E. point, and the other 150 yards S. by W. ½ W. back from it.	198

12 6	One square, wood, the other circu- lar, stone,	{ 34 15	30 15	1837 1845	}	The two lights bar.	in one lead	over 199
		•	•	37	*			•

## LAKE

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
<b>20</b> 0	GODERICH {	On high bank, S. of entrance to harbor.					White	
201		Range lights on N. pier.	****** *** 1	•••••	Two	F	Front white, back green.	İ
202	POINT CLARK	About 20 miles N. from Goderich.	44 4 40	81 34 30	Опе	Re₹	White	Every } minute
203	Kincarding	On N. pier	<b>44</b> 11 0	81 36 0	Two	F	Red	
204		In the town, on hill- side.						**************************
205	CHANTRY ISLAND	About 2½ miles W. from Saugeen.	44 29 15	81 23 20	One	F	White	***************************************
206	SOUTHAMPTON HARBOUR.	Front light on east- ern extremity of western break- water pier, dis- tant N.E. by E. 933 yards from Chantry Island.	<b>44</b> 30 5	81 22 50	Two, back light2,100 yds S. 3 E.		Red to N. and white inside har- bour.	
<b>2</b> 07		Back light on shore S. of landing pier			from fr'nt one.	F	White	***************************************
208	ISLE OF COVES	N.E. point of island, entrance to Geor- gian Bay.	45 1 <b>9</b> 40	81 32 10	One	Re▼	White	Every 1½ min
209	MICHARL'S POINT	S. side of Great Mani- toulin.	45 34 20	81 56 0	One	F	White	****** ********************************
210	DUCK ISLAND		45 37 12	82 56 10	One	Rev	Red and white	One red & wo white flashes every 2 min- utes. Great- est brilliancy of flash every 40 sec.
211	Great Manitou- lin Island.	On S.W. point of W. end of island.	15 53 10	33 6 20	One	F	White	
212	GRIFFITH ISLAND	N.E. end of island, 20 miles from Owen Sound.	14 50 30 8	30 <b>42 4</b> 0	One	F	White	***************************************

### HURON.

c, c, Miles seen in clear	Colour and any peculiarity of Lighthouse.  White, square		Height in feet of building from its base to vane on lantern.	1847 Year lighted.	O Character and order of Illuminating Apparatus.	Remarks.	200 201
15	White, circular	87	87	1859	D, Second order.	***************************************	202
15	White, square, wood	37	20	1874		Light shows from all points of approach.	203
-801101						In course of construction	204
15	White, circular	86	86	1859	D, Second order.		205
7	Front tower, white, square.	29	25	1877	c		206
10	White, square, wood	34	28	1877	C	The depth of water in channel reported about 14 feet is not sufficient to make navigation safe in stormy weather.	
15	White, circular	90	85	1859	D, Second order.		208
13	White, square	40	28	1870	с		209
15	White, square, wood, with dwelling at-	64	54	1877	c	***************************************	210
13	White, square, wood	46	28	1873	C	For guiding vessels through Mississaga Straits from either entrance.	211
12	White, circular	130	85	1859	D, Third order.		212
	****		İ	39			

### LAKE.

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
<b>2</b> 13	McKenzie's Wharf.	Presqu' Isle, Owen Sound, Georgian Bay.		80 53 40	One	F	White	
214	MEAFORD	On end of pier	44 36 50	80 23 55	One	F	White	
215		About 4 miles N.W. from Collingwood.	<b>44 32 3</b> 0	80 4 20	One	Re▼	White	Every ½ minute
216	Collingwood	Breakwater pier	44 31 0	80 2 10	One	F	Red	,
217	CHRISTIAN ISLAND	S.E. end, 2 miles from mainland.	44 47 20	79 57 30	One	F	White	
218	Gin Rock	Gloucester Bay	44 51 30	<b>79 51 3</b> 0	One ,	F	White	
219	Penetangui- shene.	Ou pier	44 48 30	79 54 5	One	F	White	
<b>2</b> 20	Parry Sound	Mink Island	45 22 0	80 12 45	One	F	White	
<b>22</b> 1	Byng Inlet		45 44 12	80 27 30	One	F	White	
<b>2</b> 22	BustardRocks {	On.W. end of island, at entrance to French River.  77 yds N.E. ½ E. from		80 55 5	} Two	F	White	
<b>223</b>	FRENCH RIVER	main light.  On an island W. side of month of river, distant from 2nd light 1.75 mile.  E. side of river, 1,533 yds from 3rd light, and 3 mile from wharf at railway terminus.	•••••		} <b>Two</b>	F	White	{
		·	40		l			į

### HURON.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
12	White, square, wood	35	27		C		213
13	White, square, wood	42	35	1878	c		214
17	White, circular	86	85	1859	D, Second order.		215
6	On framework	24	·	1858	C		216
15	White, circular	61	60	1859	D, Fourth order.		217
10	White, square, wood	<b>3</b> 6		1875	C	For guiding vessels into Pene- tanguishene and Midland Har- bour.	218
8	White, square, wood	20	18	1876	C		219
16	White, square tower on dwelling.	56	40	1870	C	The channel up to the harbour is marked by buoys and day beacons.	220
••••	On woodwork	······································	<b>5</b> 0	1870	C		221
11	On whitewashed framework.	36	25				
6	Painted red	26	15	1875	C	These two range lights should be kept in line until the two range lights in the river are brought into line.	224
6	Whitewashed	16	10				
6	Whitewashed	33	27	1875	C		223-
	•			41		ļ	

### LAKE

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
224	LONELY ISLAND		  45 33 30 	81 15 <b>4</b> 8	One	F	White	
<b>2</b> 25	RED ROCK POINT.	One mile E. of Kil- larney.	45 58 40	81 16 30	Two	F	White	
226	PARTRIDGE IS- LAND.	1½ mile N.W. of Red Rock light,	<b>45 59 2</b> 0	81 19 50	One	F	White	
227	Shaftesbury or Little Cur- rent.		45 59 30	81 47 40	Two	F	White	
228	CLAPPERTON IS- LAND.	N. point	46 3 0	82 5 0	One	F	White	
<b>2</b> 29	GORB BAY	Or Janet Cove, W. extremity.				•••••		
230	SULPHUR ISLAND	W. end of Island	46 9 0	83 30 0	One	F	White	······
231	THESSALON RIVER		*****		,	•••••		*******

### LAKE

											1
232	POINT AUX PINS	St. Mary's River, near the Sault.	46	28	30	84	40	50	One	F	White
233	CORBAY POINT	Batchewana Bay	46	54	0	83	50	30	One	F	White
234	MICHIPICOTEN IS- LAND.	S. point	47	<b>4</b> 2	15	86	1	85	One	F	White
235	AGATE ISLAND	In Quebec Harbour, near Michipicoten Island Harbour.		42	50	86	2	10	One ,	F	White
236	BATTLE ISLAND	Entrance to Nepigon Bay.	48	45	27	87	46	13	One	Alt	Red Greatest bril- and liancy every white 1½ minute.
237	LAMB ISLAND	Western entrance to Nepigon Bay,	48	36	25	88	22	15	One	F	White
238	Роврнуку Розит	Entrance to Black Bay, Edward Is- land, Algoma.	48	21	5	88	51	30	Оде	F	White
239	THUNDER CAPE	Entrance to Thunder Bay.	48	18	30	89	10	0	One	Rev	White
4	,	•	•		<b>42</b>			. '		ı	•

### HURON.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
20	White, square	195	42	1870	l  C	······································	224
-8	White, square, wood	{ 80 20	$\binom{20}{12}$	1866		At N. side of channel leading into Killarney Harbour.	225
5	White, square, wood	30	20	1866	c		226
≪6	White, square, wood	{ 24 22	}	1866	c	Range lights	227
8	White, square, wood		35	1866	C		228
-001101	***************************************		 	*******		In course of construction	229
12	White, square, wood	45	20	1867	C	· ······ ···· ···· ···· ···· ···· ···· ····	230
	Square, wood			·*****	o	***************************************	231

### SUPERIOR.

						<del></del>	
8	White, square, wood	30	23	1873	C		232
<b>1</b> 6	White, octagonal, wood, with dwelling attached.	77	63	1873	0		233
15	White, square, wood	56	32	1872	C	A fog bell here	234
10	White, square, wood	32	20	1872	c		235
18	White, square, wood	105	36	1877	C.,		236
17	White, square, wood, with dwelling attached.	90	46	1877	C		237
14	White, square, wood	56	36	1873	C.,		238
12	White, square, wood	45	28	1874	C		239

### LAKE

No.	Name of Light. Place.		Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
240		On N. shore of river.	48 23 37	89 26 47	One	F	White	•••••
	Kaministiquia.	293 yards E.N.E. from above.	•••••	······ •••••	One	F	White	

### NEW BRUNS

GULF OF ST.

<b>24</b> 1		S. side of entrance to harbour.	<b>4</b> 8	3	<b>4</b> 5	66	<b>2</b> 0	50	One	F	White	
242	HERON ISLAND	Chaleur Bay	48	0	0	66	8	0	One	F	Whi	
<b>24</b> 3	Ретите Roche				•••		•••••					• - • • • • • • • • • • • • • • • • • •
244	B≜THURST	On Carron's Point	47	39	10	65	36	<b>4</b> 0				
24	Caraquet ,	On island, Bay of Chaleur.	47	49	40	65	_54	0	One	F	White	
246	Goose Lake	W. side of Miscou Is- land.	47	<b>5</b> 5	43	64	35	40	One	Rev	W hite	Every minute
247	Shipp <b>egan</b>	On island in harbour.	47	43	0	64	38	0	Опе	F	White	******
248	Miscou Island	Birch Point	48 •	1	0	64	29	25	One	F	Red	******************
249	Рокемоисне		47		5	64	<b>4</b> 5	5	One ,	F	Green	

## Sessional Papers (No. 3.)

## LAKES OF THE DOMINION OF CANADA.

## SUPERIOR.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks,	No.
10	White, square, wood, with dwelling attached.  Open frame	3 <b>0</b> 20	30	1873 re- built 1876	c	These two lights in one lead through the dredged channel at mouth of river.	240

#### WICK.

#### LAWRENCE.

	WILENCE.						
13	White, square, wood	49	33	1870	c	Seen from all points of approach.	241
15	White, square, wood	66	20	1875	C	Visible from all points seaward	242
/ <b>1411**</b>				·•••••		In course of erection	243
10	White, wood			1871	o	Range lights to guide vessels	244
:14	Red and white striped, square, wood.			1871 re- built 1878	c	into the harbour.	
14	White, square tower on dwelling.	52	48	1870	C		245
<sup>-</sup> 10	White, square, wood	40	28	1875	c	Complete revolution every two minutes.	246
31	White, square, wood	32	20	1872	C		247
12	White, octagonal, wood.	79	74	1 <b>85</b> 6	c	A steam fog whistle placed in the year 1875, and situated 107 yards E. from lighthouse, sounds blasts of 5 seconds duration, with interval of 25 seconds between each.	
:8	White, square, wood, with dwelling attached.	35	37	1876	c	***************************************	249
		1		45	,	1	

### NEW BRUNS

GULF OF ST.

No.	Name of Light.	Place.		Latitude N.			Longitude W		Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Oolour of Light.	Interval of Revolution or Flash.
250	NORTH TRACADIE	One on N. side of gully, the other outside of bar.		33	14	61	51	35	Two	F	White	
251	SOUTH TRACADIE.	N. side of gully	47	30	0	64	52	10	Two, back light 166 yards N. from fr'nt one.	F	Front one white and back one red	
252	TABUSINTAC	Crab Island	47	18	54	64	59	30	Two	F	Front red and back white	·····
253	NEGUAC	1 	47	17	47	65	3	20	Two	F	White	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
254	PORTAGE ISLAND.	On S. point of island.	47	9	50	65	2	<b>4</b> 0	One	F	White	******
255	OAR POINT	Miramichi Bay	47	7	40	65	15	10	Two, mile	Ţ	White	*************
256	Sheldrake Is- land.	Miramichi Bay	47	6	50	65	18	0	Two, ‡ mile apart.	F	White	
257	Grant's Beach	Miramichi Bay	47	5	30	65	28	10	Two, bearing S.W. and N.E. from each other.	F	White	***************************************
258	Middle Island.,_	Miramichi River	47	0	3	65	19	9	One	F	White	
259	Pox Island {	N.W. point of island	47	8	10	65	2	30	Two,} mile apart.	F	White	*****************
260	l	E. end of island	47	6	50	65	0	10	Two	F	White	***************************************
261	Miranioni Bav Lightheip.	Horseshee Bar, be- tween Fox and Portage Islands.	47	8	0	65	3	0	One	F	Red	***************************************
262	Раметон Виаси	Miramichi Bay	47	4 !	50	65	54 -	40	Two	r	White	
				4	6	-						

### WICK.—Continued.

LAWRENCE.—Continued.

Miles seen in clear	Colour and any peculiarity of Lighthouse.	Height in feet in centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
12	White, square, wood Open frame		20 20	1872 1875	} o	Coast and harbour range lights	250-
8	Front building, an open framed tower, painted white.  Back building, an enclosed square tower, painted red.	26	19 }	1877	c	Vessels crossing the bar from sea should steer N., keeping the lights in range. Width of bar, two cable lengths.	251.
7	White, square, wood	30	20	1873	o	Coast and harbour range lights	252
11	White, square, wood	35	20	1873	C	Coast and harbour range lights, situated N.E. side of gully.	253:
12	White, wood	46	42	1869	o		254
10	White, wood	{ 40 60	}	1869	σ	Beacons	255 -
9		48		1873	c	Beacons	256
10	White	{ 120 140	}	1869	O	Beacons	257
	White	45		1874	σ	Beacons	258-
10	White, wood	50		••••••	C	)	259~
10	White, wood	30		1872	O	Beacons to guide vessels thro' the Swashway Channel.	<b>26</b> 0~
8	***************************************	35		1873	• C	A schooner-rigged ship	261.
10	White	{ 55 66	}	1869	C	Beacons	2 <b>62</b> -
			j	47			

### NEW BRUNS

GULF OF ST.

-								
No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
.263	ESCUMINAC	On point	47 4 32	<b>64 47 3</b> 0	One	F	White	
	]					į		
. <b>2</b> 64	RICHIBUCTO HAR-BOUR.	On south beach, at bend in channel.		·····				
265	Віснівисто Неад	On headland	46 39 40	64 42 30	One	F	White	
- <b>2</b> 66	Cassie's Point	On point	46 19 15	64 30 20	One	Rev	White	Every ½ min
267	Shediac Island		46 15 20	64 31 50	Two	F	White	
268	Shediac Harbour	Duchêne Wharf	46 14 20	64 31 0	One	F	White	••••••
: <b>26</b> 9	JOURIMAIN	On cape	46 10 0	63 48 30	One	Fl	White	lo seconds
				İ				

### PRINCE ED

270	NORTH POINT	On point	47 3 46	<b>63 59</b> 10	One F	ev White	Every minute
271	WEST POINT	On sand beach	46 37 30	64 23 10	One	ev Red and white	One red and three white flashes in 1½ min. Great- est brilliancy
.272	Summerside	Railway wharf, Bedeque Bay.	46 23 25	<b>63 4</b> 7 30	One	F White	every 22½ sec.

#### WICK.—Continued.

LAWRENCE.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
14	White, wood	70	58	1841	D, Third order.	A steam fog whistle, situated 100 yds. W. of the lighthouse, sounds ten seconds in each minute, with an interval of fifty seconds between each blast. It should be heard from 3 to 11 miles, according to the state of the weather.	
•••••	,					Two range lights in course of erec- tion near present day beacons.	264
14	White, square	70	50	1864	D, Fourth order.	••••••••••••••••••••••••••••••••••••••	<b>2</b> 65
14	White, square, wood	40	27	1872	C		266
10	White	{ 48 56	}	1869	C	Beacons	267
6	On a pole	15		1860	C	Not under Marine Department	268
14	White, octagonal	72	45	1870 chan- ged 1878	C	Visible from S.E. round by N. to W.	269

### WARD ISLAND.

14	White, octagonal	80	60	1866 chan- ged. 1875	c	 276
13	Broad red and white horizontal bands, square, wood.		67	1876	O	 271
10	Square tower on roof of railway freight shed.	33	30	1856 re- built 1877	Ç	 272 :
	3a4			49	)	

### PRINCE EDWARD

		<del></del>										
No.	Name of Light.	Place.		Latitude N.		;	Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
273	Indian Point	East side Bedeque Bay.	 	• • • • • •			••••	•••				
274	SEA-COW HEAD	Or Salutation Head	46	19 1	10	63	48	20	One	F	White	/2*******
275	CRAPAUD		46	13	0	64	8	0	One	F	White	***************************************
276	BLOCKHOUSE POINT.	At W. side of entrance to Charlottetown Harbour.	46	11 8	36	63	7	28	Two in one tower, 21 feet apart vertically		Upper white, lower red	
2761	ORWELL HARROUR	At Brush Wharf								i		
2102	ORWELL CIARBOOK	At Diusii Whall			"	••••	• •••	•••		******		***************
277	Point Prim	S.E. extremity of Hillsborough Bay, 100 yards from the point.		3 1	10	63	2	0	One	F	White	***************************************
278	Wood Island	Off S. point,	45	57 2	22	62	44	30	One	F	White	
279	Little Sands	About a mile E. of Little Sands village		57 E	53	62	39	0	One	F	Red	70000000 (440000 po <b>0000</b>
<b>28</b> 0	Murray Harbour	One on edge of sand bar, S. side of har- bour, the other on mainland, about a mile W. by S. from front light.		1 2	28	62	28	25	Two,1 mile apart.	F	<b>W</b> hite	
281	Panmure Head	S.E. extremity of Cardigan Bay.	46	8 5	55	62	27	40	One	F	White	*********
282	Georgetown	St. Andrew Point,	<b>4</b> 6	9 5	57	62	31	23	One	F	Red sea- ward.	***************************************
268	East Point	200 yds. inshore from S. part of point.	46	27	9	<b>6</b> 1	58	15	One	Rev		Every 3 min
				5	0							

### ISLAND.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Appara-	Remarks.	No.
*****			*****	*****		Pier light, in course of erection, on the edge of the shoal off this point.	273
15	White, octagonal	88	<b>6</b> 0	1863	c		2 <b>74</b>
3	Post	30		<b></b>	o	In course of erection	275
12 W	White, square, wood, with dwelling and signal mast at- tached.		42	1851 re- built 1876	  C	The lower light is a streak from a window of the tower, showing only towards the bell buoy. Vessels entering, on coming into this streak, should steer for the	
						light until they make the bell buoy; they should then steer N. by E. \( \frac{1}{2} \) E. for 2\( \frac{1}{2} \) miles, when the port buoy will be made; they should then steer for the entrance to the harbour N. \( \frac{1}{2} \) E.	İ
******		*******	·**** ····	<i></i>		In course of erection	276 <del>]</del>
12	White, circular, brick	<b>6</b> 8	55,	1846	C	Bell buoy on E. side of channel, black buoy on W. side, 2½ N. by E. ½ E. from bell buoy har- bourward.	27 <b>7</b>
45	White, square, wood, with dwe!ling at- tached.	80	40	187 <b>6</b>	D, Fourth order.		2 <b>78</b>
5	In gable window of a house.	50	20	1877	C	For guidance of fishing boats	279
5	-	30	••••	1869	С	In one, these range lights show the channel to the outer buoy. New towers are in course of construction.	280
16	White, octagonal, wood.	96	50	1853	C.,	This light should be kept open off Terras Point, to clear reef off Cape Bear.	281
10	White, square, wood	36	20	1868	C		2 <b>82</b>
17	White, octagonal, wood.	<b>13</b> 0	60	1867 chan- ged 1878	C		283
,	$3a-4\frac{1}{2}$			51		· •	ı

### PRINCE EDWARD

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Interval of Revolutions or Flash.
284	St. Peters	On outer end of breakwater. On sand beach, 126 yards S.W. by S. from front light.		62 44 30	One One	F F	White
285	Tracadie	On beach, W. side of channel, 233 yards N.E. by N. from back light.	46 25 20	63 2 30	Two	F	Red
286	South or Little Rustico.	S.E. end of Robin- son's Sound, about 3 miles S.E. of Grand Rustico.	46 26 25	63 13 38	Two	F	White
287	North on Grand Rustico.	W. side of entrance to harbour.	46 27 28	63 17 0	Two in one tower, 16 feet apart vertically	F	Upper
288	New_London	W. side of entrance to Grenville Harbour.	46 31 10	63 28 45	Two in one tower, 16 feet apart vertically	F	Upper
289	Fish Island	Entrance to Malpeque, or Richmond Bay, on inside of island.	16 34 44	63 42 29	Two, 400 ydsapart, E. by S. and W.by	F	White
	LITTLE CHANNEL,	Or Conway Inlet, N. 4 side.	6 40 0	53 52 40	Iwo, 66 yds apart	F	White
The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon	Cascumpec	3.W. part of Sandy 4 Island.	6 48 22 6		Two, 218 yds apart E. by S. and W.by	j	Main white, range red

### LAKES OF THE DOMINION OF CANADA.

### ISLAND.—Continued.

Miles seen in clear	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
6 6	White, square, wood White, square, open frame.	İ	35	1865 build- ings erect- ed		Range lights to lead into har- bour.	284
10 9	Open square frame- work, lantern white.	{ 30 19	$\left\{egin{array}{c} 32 \ 21 \end{array}\right\}$	18 <b>79.</b> 18 <b>76</b>	  C 	In one, lead through channel over the bar.	285
-6	On masts	{ 26 17	22 14	1875	C	In one, lead through the channel at entrance to harbour.	286
<b>1</b> 0 3	White, square, wood, with dwelling attached.	{ 40 24	} 35	1876	C	The lower light is a streak shown from a window, 16 feet below the main light, and can be seen by vessels only when they are in range with the channel.	
<b>10</b> 3	White, square, wood, with dwelling attached.	{ 40 24	} 35	1876	C	The lower light is a streak shown from a window, 16 feet below the main light, and can be seen only when vessels are in range with the channel. It is intended to replace the streak light	288
42	White, square, wood, with dwelling attached.	50	46	1856 re- built 1876	C	by a range light.  The main light is a sea-light. The smaller one, in range with it, shows the channel over the	289
<b>-6</b>	Open framework. lantern white.	18	22	1876		bar.	
	White, square, wood Open framework, lantern white.	16	- 1	1872 build- ings erect- ed 1876	C	In one, lead through channel at entrance to harbour.	290
	White, square, wood, with dwelling at- tached.  Open framework,	45 18	22	1856 re- built 1876	} c	The main light is a sea-light. The smaller one, in range with it, shows the channel over the	291
	lantern white.			53	, 1	bar.	

### PRINCE ED

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
<b>2</b> 92	Big Tig <b>nish</b>	Front light on outer end of breakwater, on N. side of entrance to harbour; back light on shore, at S. side of entrance.		<b>63 59 2</b> 0	Two, 345 yds apart E. and W.		W hite	,

### NOVA

GULF OF ST.

			<del></del>								
293	Pugwash	In harbour	45 5	2 30	63	40 :	20	Опе	F	Red sea- ward, white to- wards har- bour.	
<b>2</b> 94	MULLIN POINT	N. side of entrance to Wallace Har- bour, Cumberland County.		9 45	63	<b>25</b> 1	15	One	F	White	
<b>2</b> 95	AMET ISLAND	Centre of island, Northumberland Straits.	45 5	0 15	63	10 1	LΟ	One	F	White	40-00*
<b>2</b> 96	Caribou Island	N.E. part of island	45 4	6 0	62	42 2	20	One	Rev	White	Every minute
<b>2</b> 97	P10T0U	S. point of entrance to harbour.	45 4	130	62	39 3	30	Two,verti- cal, 25 ft. apart.	F	Upper white, lower	
<b>2</b> 98		In tower of new Cus- tom House.	45 4	0 50	62	42 1	10	One	F	White	00110120000-004400000
299	PICTOU ISLAND	S.E. point	45 4	9 10	62	30 8	30	One	F	White	****************
200	Cape St. George	N. side of cape	45 5	2 30	61	54 4	10	One	Rev	White	Every ½ min
<b>3</b> 01	Ponquet Island.	N.E. end of island, in St. George's Bay.	45 3	9 40	61	44 3	30	One	F	Red	Saddes adolescent a top i bo
ł				54			į			L	ţ

### WARD ISLAND .- Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
6	Lanterns on masts {	Front 17 Back 26	17 }	1877	C	In one, lead through channel at entrance to harbour.	292

### SCOTIA.

#### LAWRENCE.

8	White, square	48	44	1871	C	<u></u>	<b>293</b> -
11	White, square, wood	39	25	1873	o	For guiding vessels in and out of harbour.	294
10	White, square, wood	44	26	1868	C	Visible round horizon	295
10	White, square	35	26	1868	C		296
11	Striped red and white vertically, octagonal, wood.	65	55	1834	C	Lighted when navigation is open. A small red light is seen below lantern; by keeping light W.S. W. vessels clear the E. reefs off Pictou Island.	297
8		60	······································	1878	C	Ir range with lights at entrance to harbour leads through the channel up to the bar.	298
12	White, square	52		1853	C		<b>_</b> 299
25	White, square	350	39	1861	C		300
9	White, square	50	23	1868	C	Obscured on easterly bearings	301

#### NOVA

GULF OF ST.

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
302	Harboub au Bouche.	***************************************	•••••	******	· • • • • • • • • • • • • • • • • • • •	 	, • 	••••••
:303	NORTH CANSO	N. entrance, W. side, 120 yards inshore.	<b>45 41 4</b> 0	61 <b>29</b> 10	One	F	White	•••••••

#### CAPE BRETON

.304	PORT HOOD	S.E. side of entrance to harbour.	46	0	0	61	31	<b>4</b> 0	One	F	Red north, white	
:305	MARGAREE	Summit or middle of Sea Wolf Island.	46	21	30	61	15	30	One	F	1	
<b>306</b>	CHETICAMP	Near S. end of island	46	36	30	61	3	10	One	Rev	White	Every 45 sec
307	CAPE NORTH	On Money Point, 1 mile S.E. from Cape North.	47	2	10	60	23	30	One	Rev	Red and white	Every 45 sec
:308	Inganish	On island	48	<b>4</b> 1	20	60	20	0	One	F	White	
-309	St.Ann Harbour	On N. point of beach	46	17	30	60	32	15	One	F	White	
310	Bird Island	Ciboux Island, 1 mile from N. end.	46	23	10	60	22	<b>3</b> 0	One	Rev	Red	Every minute
<b>-3</b> 11	McKenzie Point.	N. side of Bras d'Or Lake, about 2 miles S.W. of Port Bevis.		7	15	60	39	0	One	F	White	······································
312	Kidston Island	On N.E. point, at en- trance to Baddeck Harbour, N. side of Bras d'Or Lake.		5	58	60	44	20	One	F	Red	
313	GRAND NARROWS	On Uniacke Point, N. side of channel, Barra Straits.	45	58	0	60	<b>48</b>	0	One	F	White	***************************************
:314	Cape George	S. side of Bras d'Or Lake, W. side of en- trance to St. Peter's Inlet.		44 :	28	60	48	20	One	F	White	
	•	•	ı		56			ı	ı			,

#### SCOTIA.—Continued.

### LAWRENCE.—Continued.

Miles seen in clear weather.	Colour of any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
*****		••••••				Rauge lights, to lead over the bar, in course of erection.	302
18	White, square, wood. Lantern on dwel- ling.	110	35	1842	C	There is good anchorage under the light when the wind is off shore.	303

#### ISLAND.

10	White, square	55		1854	o	304
<b>:2</b> 1	White, square	298		1854	C	To vessels in dangerous proximity to the island the light may become obscured by the abrupt cliffs on the sides of the island.
20	White, square, wood.	149	24	1872	c	306
15	White, square, wood	74	26	1875	C	Coast light; makes a complete revolution every 1½ minutes.
<b>.20</b>	White, square	237	40	1871	D, Fifth order.	308
8	White	24	30	1871	o	The light exhibited to find en- trance through on a dark night
14	White, octagonal	77	33	1863	o	310
41	White, square, wood	95	*****	1874	o	For guiding vessels through Bras 311 d'Or Lake.
7	White, square, wood	31	******	1875	C	312
<b>1</b> 0	White, square, wood	29	20	1874	o	For guiding vessels through Barra 313 Straits and navigating the Little and Great Bras d'Or Lakes.
12	White, square, wood	50	20	1875	C	To guide vessels through St. 314 Peter's Inlet.
1			l	57		

NOVA.

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
315	BLACK ROCK POINT.	S. side of entrance to Big Bras d'Or.	<b>46</b> 18 30	60 23 30	One	F	White	······································
<b>3</b> 16	Рогит Асоні	On high cape, N. side of entrance to Little Bras d'Or.	46 20 30	60 17 10	One	F	Red	* ••••••
317	Sydney Bar	On W. end of S. bar	<b>4</b> 6 12 <b>4</b> 0	60 12 40	One	F	Red	••••••
318	Low Point	Flat Point, E. side of Spanish Bay.	46 16 30	60 7 30	One	F	White	****************
319	Lingan Head	N. side of entrance to Bridgeport Harbour	46 14 10	60 2 40	One	F	Red	
320	FLINT ISLAND	On island	46 11 (	59 46 50	One	Rev	White	Every 15 sec
321	Scatterie	N.E. point of Trap Rock.	46 2 15	59 40 15	One	Rev	White	Visible a min- ute, eclipsed half a minute.
322	Mainadiru	On S. side of W. point of Scatterie Island.		59 47 30	One	F	Red	***************************************
<b>33</b> 3	LOUISBURG	N. side of entrance to harbour, 120 yards inshore of point.		59 57 18	One	F	White	********
324	Guion Island	About 233 yards from W. end of island.	45 46 10	60 6 20	One	Rev	Red	Attains greatest brilliancy every 30 sec.
225	SAINT ESPRIT IS- LAND	 						***************************************
	t.	I	58	3	1	•	1	l

#### SCOTIA.—Continued.

18LAND.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted,	Character and order of Illuminating Appara-	Remarks.	No.
•••••	White, square	45	23	1868	c		315
11	White, square, wood	91	20	1874	C	For guiding vessels into Little Bras d'Or.	316
10	White, square, wood	30	20	1872	C		317
14	Vertical red and white stripes, oc- tagonal.	70	51	1832	C		318
10	White, square, wood	50	20	1874	C	For guiding vessels into Bridge- port Harbour.	319
12	White, octagonal	65	43	1856	C	Visible around horizon	<b>32</b> 0
15	White, octagonal	90	70	1839	C	The light should never be brought to bear to eastward of N.N.R., or to southward of S.S.W., nor approached nearer than 1½ mile.  A boatjis here to render assistance.	
•••••	White, square, wood	90	40	1871	c	•••••••••••••••••••••••••••••••••••••••	322
16	White, with a black vertical stripe on dwelling.	85	35	1842	C		323
12	White, square, with dwelling attached.	74	54	1877	C		324
		Tapant necessops		********	<b>2022-00</b> 000 00046 f	To be erected	325
i	I	1	, 1	<b>5</b> 9	)	l	•

#### NOVA

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No.	Name of Light.	Place.	Latitude N.	-		Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Kevolution or Flash.
<sup>-</sup> 326	Ouetique Island 	On S. point	45 36	40	<b>6</b> 0	57	15	One	F	Red	
:327	Cape la Ronde	W. side of entrance to Peter's Bay.	<b>4</b> 5 34	45	60	53	0	One	F	White	******************
.328	Green Island	Summit of island	<b>45 2</b> 8	50	60	<b>5</b> 3	<b>4</b> 0	One	Rev	Red and white	Alternate ev'ry 45 sec.
:329	PETITDEGRAT	On Big Arrow Rock, S.E. of Madame Is- land.	44 29	25	60	57	50	One	F	Red	•••••
:330	ARICHAT	Marache Point, S. en- trance to Madame Island.	45 29	0	61	1	50	One	F	White	
331	Jerseyman Is- Land.	Arichat Harbour	<b>45 3</b> 0	20	61	3	0	One	F	Red	
<b>332</b>	Creighton's Head.	On the N. extremity	45 30	40	61	6	0	One	Rev	White	Every 40 sec
333	Point Tuppes	Ship Harbour, or Port Hawkesbury.	45 36	40	61	22	0	Опе	F	Red	
334	Sand Point	Or Eddy Point, S. en- trance.	45 31	30	61	14	40	Two, hori- zontal, 24 feet apart	F	White	
:335	Guyabobough Harbour.	W. side of entrance, near Peart Point, Chedabucto Bay.	45 22	50	61	29	10	One	F	White	
336	CANSO HARBOUS	On Hart or Cutler Island.	45 21	0	60	58	30	One	F	Red	 
337	Sable Island	l mile from E. end	43 58	30	59	46	0	One	F	White	
				60							

## SCOTIA.—Continued.

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Miles seen in clear weather.	Colour and any pecuiliarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Appara-	Remarks-	No.
9	White, square, wood, with dwelling attached.	78	28	1874	C	  For guiding vessels through   Lennox Passage.	326
14	White, square, wood, with dwelling attached.		28	1874	C	For guiding vessels into St. Peter's Bay.	327
14	White, square, wood. Light, centre of Keeper's dwelling.	70	31	1865	o	Visible round horizon	328
10	White, square, with dwelling attached.		31	1877	c		329
8	White, square, wood	34	25	1951	C		330
11	White, square, wood	39	28	1872	C	There is a range beacon on the S.E. point of Jerseyman Island that marks Hautfond Shoal off the entrance to Arichat Harbour.	l
10	White, square, wood	29	20	1874	C	For guiding vessels into Little or West Arichat	332
7	White, square	44	24	1870	C	In consequence of the interven- tion of the land on the S. side, can only be seen 3 miles in that direction.	l
8	White, with a black diamond, square, wood.	25 each		1851	C	Lights in windows at each end of building.	334
8	White, square, wood	30	20	1864	c		335
12	White, square, wood	42	28	1872	C		336
18	White and brown alternately, octagonal.	128	86	1873	D, Second order.		337
,	•			61	,	· · · · · · · · · · · · · · · · · · ·	

# Sessional Papers (No. 3.)

## LIST OF LIGHTS ON THE COASTS, RIVERS AND

#### NOVA

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No.	Name of Light.	Place.		Latitude N.		Longitude W.		Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
338	Sable Island	W. end	43 !	57	0 6	8 (	0	One	Rev	White	Three flashes at intervals of ½ minute, then a cessation of light during 1½ minutes.
.339	CANSO CAPE	N. part of Cranberry Island.	45 ]	19 5	60	55	30	Twoin one tower,ver- tically, 36 feet apart	F	White	<b></b>
340	WHITEHEAD IS- LAND.	S.W. extremity of island, Guysboro' County.	45 1	12	0 61	8	15	One	Rev	White	Every 20 sec
341	THREE TOP IS-	Entrance to White- haven.	·••••	<b></b>		•••••	•••		•/•••		*******
342	TORBAY	On eastern point of Berry Head, W. side of entrance to bay, Guysboro' County.	45 ]	11 3	61	18	35	One	F	Red to sea- ward, white to north- ward.	
. 343	COUNTRY HAR-	On Green Island, Guysboro' County.	45	6 1	5 61	32	30	One	F	White	
344	ISAAC HARBOUR	On Holly Point, W. side of entrance to harbour.	45 1	10 1	5 61	39	0	Two, vertically, 20 feet apart	F	White	
345	Wedge Island	Mouth of St. Mary River.	45	0 3	5 6	52	35				
346	Liscomb	On island	44 :	59 2	6	57	50	One	Alt	Red and white	
347	Beaver Island	S.E. part of East Beaver or William Island.	44 4	<b>4</b> 8 1	06:	2 20	30	One	Rev	White	Every 2 min
348	Sникт Rock	Entrance to Sheet Harbour.	44	19 5	56:	2 29	40	One	Rev	Red	Every 40 sec
3	! i	!	ì	£	2			<b>i</b>		į	ł

#### SCOTIA.—Continued.

Miles scen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
	White, octagonal, wood.	123	98	1873	O		338
Upper 15, Lower 9,	i	<b>(</b> 30				A steam fog whistle, about 100 yards S. of the lighthouse, sounds a blast of 8 seconds in each minute.	
	Pyramidal, wood, oc- tagonal lantern.	55	35	1854		Light not totally obscured during the eclipses; 10 seconds duration of flash, and 10 seconds eclipse.  In course of erection	
10	White, with vertical red stripes, square, wood.	51	36	1876	C	Shows white to northward into bay and towards Molasses Harbour. Top of lantern painted black.	1
14 to 16	White, square, wood	51	28	1873	c	Coast light, and to guide vessels frequenting Country and Fisherman's Harbours.	343
9	White, square, wood	80	20	1874	o	The course of constinu	344
15	White, square, wood	64	28	1872		In course of erection	345
12	White, with two black balls to sea- ward, S.S.W.	70	35	1846	C	On dwelling	347
10	White, square, wood, with dwelling at- tached.	75	41	1879	C		348
				<b>6</b> 3	\$		

## NOVA

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
349	Pope's Harbour.	On W. point of Har- bour Island.	44 47 40	62 38 50	One	F	Red	••••
350	EGG ISLAND	Centre of island	44 39 50	62 51 32	One	- 1	Red and white	Every minute.
351	DEVIL ISLAND	On S. point of island.	<b>44</b> 34 <b>5</b> 0	63 27 15	Two, horizontally, E. 3 N. and W. 3 S.,175 yds apart.	F	White	·······
352	MEAGHER BRACH	Sherbrook Tower, E. side of entrance to Halifax Harbour.	44 36 0	63 31 50	Опе	F V	Vhite .	
353	Grorge Island	On W. side of island, in Halifax Harbour.	44 38 30	<b>63 33 2</b> 0	Two, 20 ft. apart, ver- tically.	F	Vhite.	·····
354	Онввисто Нвад	W. side of entrance to Halifax Harbour.	44 30 20	63 30 50	One	Rev W	7hite F	Cvery minute
			64					

#### SCOTIA.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
y	White, square, wood, with dwelling at- tached.		37	1877	c		349
15	Black and white ver- tical stripes on sea- ward side, octa- gonal, wood.		45	1865	c	Visible around horizon	350
13	Both white, octa- gonal, wood.	€ 59 ₩ 52	53 45	1877 1852	} c	Pilots are stationed here. The Eastern light open to Southward of Western, clears to Southward of Thrumcap Shoal.	
12	White, with red roof, granite.	5 <b>8</b>	48	1815	O	When Sambro Light bears W.S. W., this light should not be brought to the westward of north, which clears the Thrum- cap Shoal. A fog bell here strikes 7 times in each minute.	Ì
	Drab, <b>s</b> quare, <b>wood</b>	One 50 feet, and the other 30 feet a- bove high water.	21	1876	O	Lights show seaward on the south and into the harbour on the north side. On the W. side the upper light only can be seen. Vessels going into Hali fax Harbour, passing Meagher's Beach, keep the light on the starboard bow; the light is for the purpose of guiding vessels in and out of the harbour through the channel W. of the island.  These lights open to westward of Meagher Beach, clear the westward of Thrumcap Shoal.	
18	White, square, wood	132	22	1872		Automatic signal bnoy placed Lat. 44° 31' 42" N., Long. 63° 29' 28" W., in 21 fathoms water, N.E. \(\frac{1}{2}\) E. 1\(\frac{1}{2}\) mile from Chebucto Head. Sounds a 10-inch whistle.  Similar bnoy in Lat. N. 44° 28' 25", Long. W. 63° 22' 10", in 36 fathoms. From this buoy, Sambro Island Light bears W. \(\frac{1}{2}\) N. 8\(\frac{1}{2}\) m. Devil's Island N. \(\frac{1}{2}\) W. 7\(\frac{1}{2}\) m., and the inner signal buoy N. W. \(\frac{1}{2}\) N. 6 m.	354
1	3a5	1	•	65 <sup>1</sup>	ı		

## NOVA

					66							
366	Medway Head	Port Medway, W. side of sutrance.	44	6	10	64	32	15	One	r	White	***************************************
365	Moser Island	On island, W. side of entrance to Lahave River.		14	15	64	18	50	One	F	Red	
864	Larave	On Fort Point.	44	17	20	64	21	0	One	F	Red	1530444,777 <b>2550000</b> 12 <b>0000</b>
363	West Ironbound Island.	Near Cape Lahave, month of Lahave River.	44	13	45	64	16	20	One	Re▼	<b>W</b> hite	Every 30 sec
362	BATTERY POINT	Luneaburg	44	21	45	64	17	30	One	F	White	
361	Cross Island	E. point, Lunenburg Bay.	44	18	45	64	10	0	Two, ver- tical, 45 feet apart		White White	Bright 45 sec., dark 15 sec.
360	Hobson's Nose	Mahone Bay	44	25	0	64	13	46	One	F	Red	********
359	CHRSTER	E. Ironbound Island, a little to eastward of centre of island, in Mahone Bay.	.)	26	10	64	4	50	One	F	White	**************************************
<b>3</b> 58	MARGARET'S BAY	On Green Island, Lunenburg County.	44	23	0	64	2	45	One	Alt	l'ed and white	Every ½ minute
357	PEGGY POINT	E. side of entrance to Margaret's Bay.	44	29	<b>3</b> 0	63	55	0	One	F	Red	***************************************
<b>3</b> 56	BETTY ISLAND	On Brig Point, near Prospect.	44	26	22	63	45	54	One	Rev	Red	Greatest brilliancy every minutes.
355	Sambro	Middle of island	. 44	26	10	63	33	30	One	F	White	
No.	Name of Light.	Place.		Latitude N.			Longitude W.	;	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl. Rev.; Int.; Alt.	Colour of Light.	Interval  of Revolution or Flash.

#### SCOTIA.—Continued.

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Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet in centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
20	White, octagonal	115	60	1758	D, Second order.	A steam fog whistle, erected on S. side of island, and elevated 90 feet above high water, sounds each minute a blast of 10 seconds' duration.	
14	White, with two horizontal red bands, square, wood, dwelling attached.	75	54	1875	C	Coast light	356
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	White, square	65	26	1868	c   	Lantern on dwelling	357
-444444	White, square. wood, with dwelling at- tached.		28		C	Coast light	358
16	White, oblong tower on dwelling, wood lantern.	150	46	1871	D	Seen from all points of approach; the lantern alone is visible; building hidden by trees.	
11	White, square, wood	68	29	1872	C		360
.14 6	Red, octagonal base.	{ 100 65	58	1832 1832	C	Pilots resort here; and vessels may take refuge in case of necessity.	361
11	White, square tower on dwelling.	50	24	1864	C		362
13	White, square	72	29	1855	o	Near edge of cliff, 40 feet high	363
8	White, square, wood	48	35	1876	C	Affog alarm is to be established here.	364
8	White, square	55	26	1868	c		365
10	White, square, with black square sea- ward.	5 <b>44</b>	23	1851	C	Like a dwelling-house	366
	1 3a—5 <del>]</del>	1	1	! 67		I	í

## NOVA

No.	. Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	! F = 1	Interval of Revolution or Flash.
367	COFFIN ISLAND	S. point, Liverpoo Bay.	44 2	0 64 37 3	One	Re▼ W	hite Every 2 min.: light 30 sec., dark 90 sec.
368	BROOKLYN PIER.	On end of breakwater Liverpool.	44 2 4	64 41 3	One	wa gr wa h	hiteea-
369	FORT POINT	Liverpool Bay, S. en- trance.	  44 23  -	64 42 2	One	F R	ed
370	PORT MOUTON	N.E. point, Spectacle Island, Queen's County.		0 64 48	0 One	FR	ed
371	LITTLE HOPE	Nearly on centre of island.	43 48 3	64 47 1	5 One	Rev R	ed Every minute
372	PORT HEBERT	On Shingle Point, E. side of harbour.	43 48 4	0 64 55 3	One	FR	ed
373	CARTER ISLAND	Rugged Island Har- bour.	43 42 1	5 65 5 30	One	F R	ed
374	RUGGED ISLAND HARBOUR.	Gull Rock	43 39 11	65 5 56	One	F W	lite
375	SAND POINT	At E. side of entrance to Shelburne Har- bour.	43 41 18	5 65 19	One	FR	ed
376	Cape Roseway	Near S.E. point of MacNutt Island, Shelburne Harbour.	43 37 15	<b>6</b> 5 15 45	Two, vertical, 21 yds apart	F Wh	ite
377	Negro Island	On N. side	43 30 54	65 20 58	One	Rev Re	
378	BACCARO	On W.side of entrance to Barrington Har- bour.	<b>13 26 54</b>	65 28 12	Oue	F Re	d

#### SCOTIA.—Continued.

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Miles seen in clear	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Appara-tus,	Remarks.	No.
16	Horizontal stripes, red and white, eight in number, octagonal.	1	50	1812	O		367
.10	White, square, wood	32	33	Build- ing erec'd 1878			368
7	White, square	30	17	1855	c	Left on port side when entering the harbour.	369
<b>a</b> 1	Square, wood	47	20	1873	c	For guiding vessels into harbour.	370
12	White, square	40	26	1865	C	Centre Cof keeper's dwelling; visible around horizon.	371
10	White, square, wood	33	29	1872	c		372
<b>4</b> 1	White, square, wood	66	29	1872			373
.10	White, square	. 56	31	1853	c		374
	White, square, wood	<b>6</b> 7	20	-	C	For guiding vessels into harbour, and to mark the dangers of Sand Point. Burnt down, 1878. To be rebuilt	375
Upper 18, Lower 10,	Black and white Vertical stripes, Octagonal.	{ 120 65	, ,	1788 rep'rd 1858	C	on opposite side of harbour.	376
12	White, square, wood	48	29	1872	c	For guiding vessels in and out of Clyde River, or Negro Eur- bour.	377
10	White, square, with black ball seaward	49	35	1850	C		37 <b>8</b>
:	•	'	•	69 <sup>1</sup>	1	!	

#### NOVA

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No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
<b>3</b> 79	Barrington East Bay Lightsmir.		43 31 5	65 3 <b>4 2</b> 5	One	F	White	
380	Cape Sabl <b>e</b>	On Cape	43 23 19	<b>65 37 11</b>	One	Re▼	White	Bright 15 sec., dark 25 sec.
381	Stoddart Island	On N.W. point of island.	<b>43 28 3</b> 0	65 43 10	One	F	Red	••••••••
382	BON PORTAGE IS-	On S. point	43 27 16	65 44 39	One	R⊕v	Red	Every minute
<b>3</b> 83	Seal sland	S. point, & mile inland	43 <b>2</b> 3 34	66 0 52	One	F	White	
384	PUBNICO HARBOR	Beach Point, E. side of entrance, 120 yards from low water mark.	i	65 46 54	One	F	₩hite	
<b>3</b> 85	ARGYLE	On S. point of White- head Island, Yar- mouth County.	43 39 40	65252 4	Опе	F	Red	
386	Tusket River	Big Fish Island, S.W. point.	43 42 10	65 57 15	Two, hori- zontal, 8 yds apart		White	
387	Pease's Island	One fof the Tusket Islands.	43 37 40				·	

#### SCOTIA.—Continued.

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Miles seen in clear Weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
	Hull and spars paint- ed red, with word "Barrington" in white letters on both sides.	••••••	above deck.	1875	******	Meored in six fathoms at low water; Wesses' Ledge, bearing S.W. by W. W. W., distant in mile; Baccaro Light, bearing S.S.E. in E., distant 6 miles; and Bantam Rocks, bearing S. by E. in E., distant 6 miles. To guide vessels into Barrington East Bay, and through Barrington Passage.	
12	White octagonal	53	50	1861	C	A steam fog whistle on southern point of Cape, elevated about 40 feet above high water, sounds a blast of 10 seconds' duration in each minute.	1
9	White, small square tower.	22	. <b></b> .	••••	C	To guide vessels into the anchorage of Stoddart Harbour and Shag Harbour Sound.	
12	White, square, wood	46	28	1874	C	For guiding vessels into Barring- ton West Bay and Shag Har- bour.	382
18	White, octagonal	98	60	1830	D, Second order.	The Blond Rock lies S. by W.,  3\forall miles from lighthouse. A fog whistle near lighthouse, sounds in each minute a blast of 5 seconds' duration, and after an interval of 5 seconds, another blast of 5 seconds.	
8	White, square	28	20	1854	C	Open westward of St. John's Island, bearing N.E. by N. clears the ledge; in making harbour from any other direction, the light must be brought to the northward of E.N.E. before it can be steered for to avoid shoal spot off St. Ann's Point.	
12	White, square, wood, with dwelling at- tached.		28	1874	C	For guiding vessels into Argyle Harbour,	385
12	White, square, wood	50	23	1864	C	Visible seaward ; in windows each end of a dwelling-house.	886
		*******	******		•••••••••••••••••••••••••••••••••••••••	In course of erection	387

## NOVA

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
388	YARMOUTH OR CAPR FOURCHU	E. cape, S. point	43 47 28	66 9 21	One	Int	White	Light 11 min., dark 1 min.

#### BAY OF

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389	Bunker's Island	On end of reef, off S. W. point of island, E. side of entrance to Yarmenth Harbour.	İ	48 3	0 66	8 4	45	Оле	F	Red	
90	CAPE ST. MARY	E. side of bay	44	5 2	0 66	12	10	One ,	Alt	Red and white	Every 30 sec.
391	Meteghan River	At extreme end of breakwater.	44	13 4	3 66	8 1	12	One	F	Green	
392	CHURCH POINT	E. side of St. Mary's Bay, Digby County.	44	19 5	5 66	7 3	5	One	¥	Red	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
93	Sissiboo	S. side of entrance to river.	44	26 30	66	1 1	5	One	F	White	<b></b>
394	Westport	Peter's Island, en- trance to Grand Passage.		15 30	66	20 2	0	Two, hori- zontal, 24 feet apart	F	White	<b>15000</b> 0000 ( 150000 ) <b>1000</b>
195	Brier Island	N.W. point	44	14 5'	66	23 3	0	One	F	White	**************************************
				72							

#### SCOTIA.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
18	Vertical stripes, red and white, octa- gonal tower.	117	59	1839	C	Fog whistle on W. side, sounds 10 seconds in every minute.	388

#### FUNDY.

dwelling-house,			1874	c	A red beacon light, for the purpose of guiding vessels into the harbour. Visible from the southward between the bearings of N.B. by N. and N. & E. It can also be seen over Stanwood's Beach when bearing from S. & E. to S. E. & E., but cannot be run for on those bearings, the only entrance to the harbour being through Yarmouth Seund and round Cape East.
White, octagonal	103	43	1868	C	390
Vertical red stripes on seaward side, lantern painted black.	23	21	1875	C	Beacon for guiding vessels into river. Must be left on starboard hand and passed close aboard. Tide leaves breakwater one hour before low water.
White, square, wood	36	20	1874	o	For guarding against dangers in 392 vicinity of Church Point.
White, square, wood	36	33	1870	C	393
White, square	40 each	15 each	1850	C,	Vi lible from the northward between the bearings of S. by W. and S.S.W., and from the southward between the bearings of N.E. by E., and N.N.W. 1 W.
White, octagonal	92	55	1809	C	A steam fog whistle on N.W. of 395 Brier Island, south side of lighthouse, sounds three blasts of 4 seconds' duration, with intervals of 4 seconds between them, in each minute.
	dwelling-house, built on a wooden pier.  White, octagonal  Vertical red stripes on seaward side, lantern painted	dwelling-house, built on a wooden pier.  White, octagonal 103  Vertical red stripes on seaward side, lantern painted black.  White, square, wood 36  White, square, wood 36  White, square	White, octagonal 103 43  Vertical red stripes on seaward side, lantern painted black.  White, square, wood 36 20  White, square, wood 36 33  White, square	White, octagonal 103 43 1868  Vertical red stripes 23 21 1875 on seaward side, lantern painted black.  White, square, wood 36 20 1874  White, square, wood 36 33 1870  White, square 40 15 each each	White, octagonal 103 43 1868 C

NOVA
BAY OF

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative positions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Interval of Revolution or Flash.
396	Boar's Head	17 yards from edge of cliff.	44 24 16	66 13 0	One		Red Every minute
397	Point Prim	S. point of entrance to Annapolis Basin.	44 <b>4</b> 1 34	65 47 20	One	F	hite
398	Port Williams or Marshall Cove.	S. shore	44 56 52	65 16 0	Two, ver- tical, 20 feet apart	1 1	Thite
399	Margaretville,	On extremity of point, S. shore.	45 2 57	65 4 0	Two	F	Red
490	ISLE HAUTE	On highest point	<b>45</b> 14 55	65 0 45	One	Int	White 40 seconds in every minute.
401	Blackrock	S. shore	<b>45 10 1</b> 0	6 <b>4 46</b> 0	One	FW	Thite
402	CAPE D'OR FOG WHISTLE.	On extreme point, opposite side of channel from Black rock.		******			
<b>40</b> 3	Kingsport	On Oak Point pier	45 9 30	64 21 45	One	FW	7 bite
404	Horton	On bluff, W. side of Avon River.	<b>4</b> 5 6 15	64 13 <b>3</b> 0	One	FW	7hite
405	WALTON HARBOR	Basin of Minas, Hants County.	<b>45 14</b> 0	64 0 45	Опе	<b>F</b>	Red
406	BURNTCOAT	Basin of Minas, N.W. extremity of head, S. shore.	<b>45 18 4</b> 0	63 48 30	One	F W	7hite

#### SCOTIA.—Continued.

FUNDY.—Continued.

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Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
.14	White, square	70	 	1864	c	On S. entrance to Petit Passage	396-
13	Vertical red and white stripes, square tower.		22	1817	c	Fog whistle on Prim Point sounds 8 seconds in each minute.	397
10	White, square	60 57	22	18 <b>59</b>	C	Lantern on top of dwelling; lower light in bow window, visible from W.S.W. round N. to E.N.E.	398
8	Horizontal white and black stripes, square.		} 22	1859	c	Visible from W.S.W. round N. to E.N.E.	399
20	White, square, wood, dwelling attached, almost hidden by trees.	<b>36</b> 5	53	1878	C		400
12	White, square	45	35	1848	C	Light on top of dwelling, visible from all points of approach.	401
••••				•••••		Sounds during thick weather for 6 seconds in every 30 seconds. The whistle should be heard from 5 to 20 miles, according to the state of the wind and atmosphere.	
8	Upper enclosed part white, open frame, brown.	30	26	1878	C	Visible from S.W. ½ W. round by E. to N.W. by W. ½ W.	403
20	White, square	92	20	1851	C	Light in window	404
10	White, square, wood	60	20	1873	C	For guiding vessels into Walton Harbour.	405
13	White, square, with lantern on dwel- ling.	75	35	1859	C	On dwelling; visible from all points of approach.	406
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## NOVA BAY OF

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No.	Name of Light.	Place.		Latitude N.		Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
407	Spencer Point	On N. shore, Cobequid Bay.	45 2	23 30	63	37 (	One	F	White	
408	Parrsboro or Partridge Is- Land.	W. side of river	45 2	3 0	64	19 0	One	F	White	•••••••
409	Apple River	On Cape Capston or Hetty Point, N. en- trance.	45 2	<b>8 2</b> 0	64	<b>51 3</b> 0	Опе	F	White	

## NEW BRUNS-

#### BAY OF

<b>4</b> 10	Hillsborough Wearf.	Petitcodia	c River	45 5	5 15	64	37 45	One	F	White	
411	Grindstone	W. part of	island	45 43	3 13	64	37 25	One	F	White	•••••••
412	Cape Enrage	Pitch of ca	pe	<b>4</b> 5 35	i 34	64 4	16 55	One	F	White	
479	07.15	S11 h	-0013							****	
-113	QUACO	Small rock	оп пена	4D 18	20	65 4	31 DO	One	FreA	w nite	Avery 20 sec
414	Cape Spenoer	Pitch of ca	pe	45 12	30	65 8	64 0	One	Alt	Red and white	Every 45 sec
J			ĺ		76	,	ĺ			İ	

#### SCOTIA.—Continued.

FUNDY.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
6	Window in a build- ing.	35	20	1863	C		407
9	White, square, with lantern on dwelling	37	32	1852	c		408
12	White, oblong, with tower.	64	45	1870	  C	Re-built about 33 yards S.S.E. from old one.	409-

#### WICK.

#### FUNDY.—Continued.

			<del> </del>			
5	Open frame	14	22	1875	G	To guide vessels going up the river and to the coal and plaster wharves.
12	White, octagonal, wood.	60		1854	c	Visible from N.E. by E. round by N. to E. by S., or 315° Cape Enrage Lighthouse, S.W. by W. ½ W., about 10 miles.  In thick weather a trumpet sounds 4 blasts in every minute.
15	White, square	120	23	1840	D, Fourth order.	Wisible between the bearings of N. W. round by S. to N.E.  A steam fog whistle, 150 feet N.E. from the lighthouse, sounds 4 seconds in each minute. Will probably be heard from 3 to 10 miles.
15	Horizontally striped red and white, octagonal.	58	46	1835	C	A fog bell in a framed tower on the lighthouse block strikes every 12 seconds. Under favorable circumstances it should be heard 2 or 3 miles, and in stormy weather, or against the wind, about a mile.
20	White, square build- ing, with tower.	207	35	1873	C	Visible between the bearings from 414 E.S.E. round by S. to W.N.W., Partridge Island Light bearing by compass N.W. by W. ½ W. northerly, distant 6½ miles.

#### NEW BRUNS-

BAY OF

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
-415	PARTRIDGE IS- LAND.	St. John Harbour	45 14 20	66 <b>3 2</b> 0	One	F	White	
416	NEGRO POINT	On end of Govern- ment breakwater, W. entrance to Port of St. John.	<b>45</b> 14 25	66 4 0	Опе	F	Red	
-417	St. John Har- Bour.		45 15 10	66 3 40	One	F	<b>W</b> hite	

#### RIVER ST.

	<u> </u>	1										
418	GREEN HEAD		45	18	0	66	7	20	One	F	White	 
419	SAND POINT		45	22	0	6 <b>6</b>	11	0	One	F	White	••••
420	OAK POINT	<b></b>	45	32	0	66	6	0	One	F	White	**************
421	'No Man's Friend		45	47	0	66	7	30	One	F	White	***************************************
422	Musquash Island	Washadamoak Lake, Queen's County.	45	42	0	66	7	0	One	F	White	********** * * * * * * * * * * * * * *
- <b>423</b>	Hendry Farm	Washadamoak Lake, Queen's County.	<b>4</b> 5	42	0	66	7	0	One	F	White	
		·										
-					-							
			l İ									
-424	Oromocto Shoal		45	53	0	<b>6</b> 6	27	0	One	F•	White	
				_					,			
	78											

WICK.—Continued.

FUNDY.—Continued.

Miles seen in clear	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
20	Vertical red and white stripes.	19	40	1791	C	In foggy weather a steam whistle sounds for 10 seconds every minute.  A bell buoy near E. side of Partridge Island Reef.	415
8	White, with lantern red. Open frame.	36	35	1878	O		416
10	Vertical red and white stripes.	35	15	1928	D, Fourth order.		417

#### JOHN.

	work,laatern white		,			In coming down the lake, the two lights to be kept in range until opposite the N.W. end of Hog Island, whence a southerly course to be kept to the foot of Musquash Island. In going up the lake, the two lights to be brought in range opposite the N.W. end of Hog Island, and kept in range until within half a mile of the light on Hendry Farm.	
	Brown, open frame- work, lantern white Brown, open frame-	26 30			C	Range lights to show course of channel from Musquash Is- land, past Hog Island Shoal.	423
10	White	5	 	1869	c		421
10	White	50	····	1869			420
10	White	50	 	1869	C		419
10	<b>W</b> hite	105		1869	c		418

## NEW BRUNS-RIVER ST.

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	interval of Revolution or Flash
425	WILMOT BLUFF	 	45 56 0	66 30 0	One	F	White	 
426	COX POINT	Grand Lake	46 2 0	66 1 0	One	F	White	***************************************
427	McManus Point.	Newcastle, Grand Lake.	46 4 0	<b>66 2</b> 0	One	F	<b>W</b> hite	************
428	Robertson Point	Grand Lake	45 53 0	60 13 0	One	F	White	
429	FANJOY POINT	Grand Lake	45 <b>5</b> 5 10	60 4 0	One	F	White	•••••
430	Hackerst Point	Salmon River, Grand Lake.		•••••	One	F	₩ bite	********

#### BAY OF

431 Musquash E. side of entrance 45 8 35 66 14 30 One	to w	Red
	, w	ard, hite to- ards ar- pur.
	ver- F W	hite
DREW'S HEAD On W. side of Beaver 45 3 45 66 44 0 On Harbour, Charlotte County.	F W	hite
434 PEA POINT E. side of entrance to 45 2 20 66 48 40 One	F G1	reen
435 BLISS ISLAND West end of island, 45 1 15 66 51 0 One S. side of western entrance to Bliss Harbour.	F R	ded
80	. ,	

# WICK—Continued. JOHN.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Appara-	Remarks.	No.
10	White	104		1869	C	 	425
10	<b>W</b> hite	20		1869	c	 	426
10	White, square, wood	28	26	1876	c		427
10	White, square, wood	16	16	1873	c		428
10	White, square, wood	16	16	1873	c		429
*****	White, square, wood			 		In course of erection	430

#### FUNDY.

10	White, square, wood,	۷	36 31			interval of 5 seconds.  Seen at all points between eastern and western heads of harbour.  Visible from E. round by S. to N.	
	dwelling attached.  White, square, wood		30	1871	G		435
	3a—6			81			

# NEW BRUNS BAY OF

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Gelour of Light.	Interval of Revolution or Flash.
436	LETITE PASSAGE.	On Mascabin Point	45 2 20	66 53 30			<b>******</b>	
437	MIDJIC BLUFF	Passamaquoddy Eay, Charlotte County.	<b>45</b> 6 53	<b>66 54 3</b> 0	One	F	W hite	
438	PORT ST. AN-	On sand reef at E. entrance.	45 3 45	67 0 50   	One	F	White	·····
439		N. point of entrance						······································
440	SPRUCE POINT	St. Croix River, Charlotte County.	45 10 0	67 11 0	One	F	White	
441	Mark Point	St. Croix River, Char- lotte County.	45 10 10	<b>67 12 3</b> 0	One	F	White	
442	Campobello Is- land.	N. point of Head Har- bour.	44 57 40	<b>66 54</b> 10	One	F	White	
443	South-West Wolf Island.	On S.E. point of the island.	44 56 30	<b>66 44</b> 10	One	Rev	White	Every 1½ min
444	Swallow Tail	N.E. part of Grand Manan.	44 45 52	<b>64 4</b> 4 0	One	F	White	
								X.
		1	82	ļ		.	!	

WICK.—Continued. FUNDY.—Continued.

Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lantern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted,	Character and order of Illuminating Apparatus.	Remarks.	No
						A fog trumpet sounds blasts of 7 seconds with an interval of 30 seconds between each.	436
15	White, square, wood, lantern brown.	130	29	1876	C	A bar extends E.N.E. from light- house, and vessels require to keep off a distance of 260 yards to clear it at low water.	
10	White, square, wood, on a framed pier.	40	10	1875	C	To guide to all ports in inner bay, and to vessels going up the river St. Croix from Letite Passage or West Quoddy.  There is only a depth of 4 feet of water on the N.W. extension of the reef towards mainland.	
10	White, octagonal	42	22	1833	c	Visible between the bearings of N.W. by N. and S.E. by S.	439
	White, square	32	28	1876	C	The course from Spruce Point to ballast ground is E. by S. ½ S., distance 2 miles. From Spruce Point to Mark Point W.N.W., distance 2 miles. A vessel after leaving Doucet Island, to clear the reef, should steer N. until the Spruce Point light bears N.W. by W., and thence take a W.N.W. course.	l
	White, square	32	28	1876	C		441
15	White, with red cross, octagonal tower.	64	34	1829	C	    	442
17 to 20	White, square, wood	111	35	1871	C	Lantern on dwelling; visible from all points of approach.	443
17	White, octagonal, wood,	148	50	1860	C	Visible between the bearings of S.W. round by S. to N.W. A steam fog whistle on extreme N.W. head of Grand Manan, 80 feet above high water, sounds three blasts of four seconds duration in each minute, with an interval of sixteen seconds between each blast.	444

# NEW BRUNS BAY OF

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; Int.; Alt.	Colour of Light.	Interval of Revolution or Flash.
445	GRAND HARBOUR.	Grand Manan	•••••	 			 	
446	SOUTH HEAD	Grand Manan						
447	OLD PROPRIETOR LEDGE.	To the S.E. of Grand Manan Island.	44 33 10	66 40 0	,,			***********
448	GANNET ROCK	On rock	44 0 38,	66 47 0	One	Tat	White	Light45 sec. Eclipse 5‡ " Flash 4‡ " Eclipse 5± " In every 60 sec.
449	MACHIAB SEAL SILAND.	Near middle of island 64 yards S.E. from other.	1	_	One	F F		

## BRITISH

450	Beren Island	Western entrance to Victoria Harbour.	48 :	25 24	125	24 0	One	F	Blue	
<b>45</b> 1	Entrance Island	Nanaimo, Straits of Georgia.	49 ]	1 <b>2</b> 50	123	48 45	One	F	White	
452	RACE ROCKS	In Straits of De Fuca	48 1	17 45	123	32 0	Опе	Fl	White	Every 10 sec
453	FisGARD	On a rock, at en- trance to Esquimalt Harbour.		<b>26</b> 0	123	27 15	One	F	White	
454	Frashr River Lights	On S. Sand Head, at entrance to river.	49	3 50	123	16 <b>4</b> 0	One	F	White	

#### WICK .- Continued.

FUNDY.—Continued.

-							
Miles seen in clear weather.	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character and order of Illuminating Apparatus.	Remarks.	No.
			 	{ 	***********	In course of erection	445
						In course of rection	446
8 or 10		·· •••••		1875		A spindle beacon, painted red, a cage elevated 31 feet above high water mark, in clear weather should be seen 8 or 10 miles.	447
12	Vertical black and white stripes, oc- tagonal tower.	66	41	1831	D, Fourth order.	A gun is fired to answer signals during fogs and snow storms.  Dangerous rocks extend 4 miles eastward of the lighthouse.	448
15 14	White	54 66	36 53	1832 re- built 1878	D, Second order. D, Third order.	In range will lead 42 miles S. of	449

## COLUMBIA.

7	White, square, wood	44	30	1976	C	Light hears from Brotchie Ledge beli buoy N.N.W. ½ W.
14	White, square, wood, with dwelling attached.		50	1876	c	To indicate entrance to Departure Bay and Nanaimo Harbour, as well as for the general purposes of navigation.
18	Alternate black and white horizontal bands, circular, stone.	118	105	1961	D, Second order.	A fog bell rings in thick or foggy 452 weather,
12	White brick, and red brick dwelling.	67	56	1861	D, Fourth order.	Shows red in the harbour, and when approaching too close to either shore.
9	Red hull, with ball at the light mast head.	. <b>70</b>		1866	c	454
	,	i	,	85	ı	•

## BRITISH

No.	Name of Light.	Place.	Latitude N.	Longitude W.	Number of Lights and relative po- sitions.	F.; Fl.; F. & Fl.; Rev.; lat.; Alt.	Colour of Light.	Interval of Revolution or Flash.
455	Point Atkinson.	N.W. entrance to English Bay and Burrard Inlet.	49 19 42	123 15 54	One	Rev	White	Every minute
456	Cape Beale	S.E. point of entrance to Barclay Sound, on W. coast of Van- couver Island.	48 47 48	125 12 52	One	Rev	White	Every 30 sec

#### COLUMBIA.—Continued.

Miles seen in clear	Colour and any peculiarity of Lighthouse.	Height in feet of centre of lan- tern above high water mark.	Height in feet of building from its base to vane on lantern.	Year lighted.	Character ard order of Illuminating Apparatus.	Remarks.	No.
15	White, square, wood	119	- 49	1875	C	Visible round an arc of the horizon from the entrance to Burrard Inlet to an E. by N. N. bearing. Should not be brought to bear to the westward of N. by vessels in the Straits, as this bearing will only lead clear of Sturgeon Eark, off Fraser River. A coast light, and to indicate entrance to Burrard Inlet.	
19	Light stone colour, square, with de- tached oblong dwelling.	164	35	1874	C	A coast light to indicate entrance to Earclay Sound. Visible from an easterly bearing parallel with the coast round to W. by N. ½ N. The light should not be brought to bear to the eastward of E. ½ N., as foul ground extends off the entrances to Barclay Sound,  Mariners should not attempt to enter the Sound without local knowledge or a pilot.	

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