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REPORT

OF THE

CANADIAN SECTION

OF THE

International Waterways Commission

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FOR THE YEAR 1906



REPORT

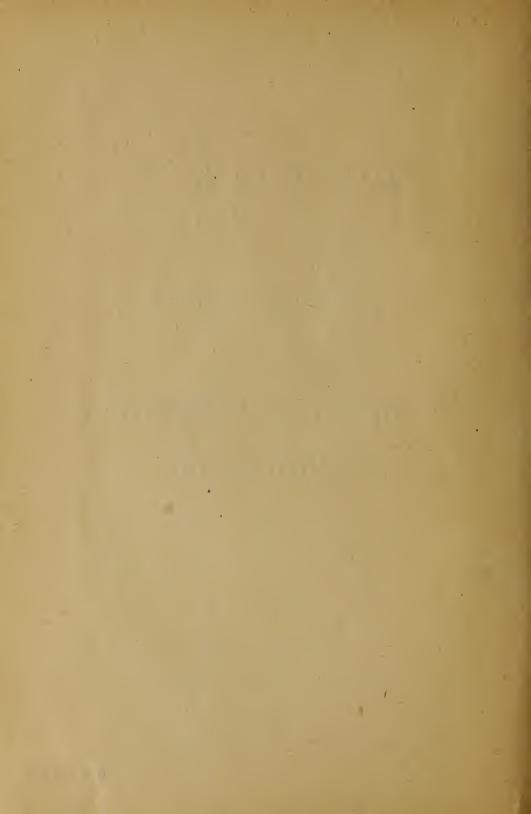
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REPORT

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Ottawa, Canada, January, 1907.

The Honourable, the Minister of Public Works, of the Dominion of Canada:

Sir,—The Canadian members of the International Waterways Commission have the honour to submit the following report, with regard to the work of the commission during the year 1906:

RE NIAGARA FALLS.

In our report of the 25th of April, 1906, we made the following recommendations with regard to the diversions from Niagara River and on the Niagara Peninsula:

- (a) In the opinion of this Commission it would be a sacrilege to destroy the scenic effect of Niagara Falls, unless, and until the public needs are so imperative as to compel and justify the sacrifice.
- (b) It is possible to preserve its beauty, and yet permit the development on the Canadian side at the Niagara River itself and elsewhere by diversions on the Niagara Peninsula to Lake Ontario, of water for power purposes to the extent of not more than 36,000 cubic feet per second, exclusive of water required for domestic uses, and for the service of locks in navigation canals.
- (c) It is likewise possible to allow the diversion of waters

for power purposes on the American side to the extent of 18,500 cubic feet per second, exclusive of the amount required for domestic uses, without serious injury to the scenic aspect of the Falls.

- (d) Your Commission are of opinion, therefore, that for the present the diversions should be limited to the quantities mentioned in sub-sections b and c.
- (e) This would give an apparent advantage to the Canadian interests, but, as the diversion is not of serious injury to the Falls and does not materially affect the interests of navigation, it is more than counterbalanced by the complete diversion of 10,000 cubic feet by way of the Chicago drainage canal to the Mississippi River.

Later on, the Joint Commission in the report of May 3rd, 1906, expressed the following views and recommendations:

- In the opinion of the Commission, it would be a sacrilege to destroy the scenic effect of Niagara Falls.
- 2. While the Commission are not fully agreed as to the effect of diversions of water from Niagara Falls, all are of the opinion that more than 36,000 cubic feet per second on the Canadian side of the Niagara River of on the Niagara Peninsula, and 18,500 cubic feet per second on the American side of the Niagara River, including diversions for power purposes on the Eric Canal, cannot be diverted without injury to Niagara Falls as a whole.
- 3. The Commission, therefore, recommend that such diversions, exclusive of water required for domestic use or the service of locks in navigation canals, be limited on the Canadian side to 36,000 cubic feet per second, and on the United States side to 18,500 cubic feet per second (and in addition thereto, a diversion for sanitary purposes not to exceed 10,000 cubic feet per second, be authorized for the Chicago Drainage Canal), and that a treaty or legislation be had, limiting these diversions to the quantities mentioned.

The effect of the diversion of water by the Chicago Drain-

age Canal upon the general navigation interests of the Great Lakes System will be considered in a separate report.

The Canadian section, while assenting to the above conclusions, did so upon the understanding that in connection therewith should be expressed their view that any treaty or arrangement as to the preservation of Niagara Falls, should be limited to the term of twenty-five years, and should also establish the principles applicable to all diversions or uses of waters adjacent to the international boundary, and of all streams which flow across the boundary.

The following principles are suggested:

- I. In all navigable waters the use for navigation purposes is of primary and paramount right. The Great Lakes System on the boundary between the United States and Canada, and finding its outlet by the St. Lawrence to the sea, should be maintained in its integrity.
- 2. Permanent or complete diversions of navigable waters or their tributary streams, should only be permitted for domestic purposes and for the use of locks in navigation canals.
- 3. Diversions can be permitted of a temporary character, where the water is taken and returned, when such diversions do not interfere in any way with the interests of navigation. In such cases each country is to have a right to diversion in equal quantities.
- 4. No obstruction or diversion shall be permitted in or upon any navigable water crossing the boundary or in or from streams tributary thereto, which would injuriously affect navigation in either country.
- 5. Each country shall have the right of diversion for irrigation or extraordinary purposes in equal quantities of the waters of non-navigable streams crossing the international boundary.
- 6. A permanent Joint Commission can deal much more satisfactorily with the settlement of all disputes arising

as to the application of these principles, and should be appointed.

"The American members are of opinion that the enuncia-"tion of principles to govern the making of a general "treaty is not within the scope of their functions; more-"over the jurisdiction of the American members is re-"stricted to the Great Lakes System."

The amount allowed to be diverted on the Canadian side was fixed at an amount, which, it was assumed, would allow the companies on that side to complete the works which they had under construction, as follows:

Cubic feet.
Canadian Niagara Power Company 9,500
Ontario Power Company12,000
Electrical Development Company
Niagara Falls Park Railway Company
Welland Canal, or its tenants (in addition to lock service) 1,800
Total36,000
Producing about 425,000 H. P. Amount allowed 36,000 c. f.
On the American side the works in operation or in course

On the American side the works in operation, or in course of construction, were as follows:

Total 18,500

Amount allowed, 18,500 c. f.

The matter was a subject of special legislation in the United States Congress, and what is known as the Burton Bill was passed and received the approval of the President in the following form:

"A BILL for the control and regulation of the waters of Niagara River, for the preservation of Niagara Falls, and for other purposes."

Be it enacted by the Senate and House of Represen-

tatives of the United States of America, in Congress, assembled.

That the diversion of water from Niagara River or its tributaries, in the State of New York, is hereby prohibited, except with the consent of the Secretary of War as hereinafter authorized in section two of this Act: Provided, That this prohibition shall not be interpreted as forbidding the diversion of the waters of the Great Lakes or of Niagara River for sanitary or domestic purposes, or for navigation, the amount of which may be fixed from time to time by the Congress of the United States or by the Secretary of War of the United States, under its direction.

Sec. 2. That the Secretary of War is hereby authorized to grant permits for the diversion of water in the United States from said Niagara River or its tributaries for the creation of power to individuals, companies or corporations which are now actually producing power from the waters of said river, or its tributaries, in the State of New York, or from the Erie Canal; also permits for the transmission of power from the Dominion of Canada into the United States, to companies legally authorized therefor, both for diversion and transmission, as hereinafter stated, but permits for diversion shall be issued only to the individuals, companies or corporations as aforesaid, and only to the amount now actually in use: Provided, That the said Secretary, subject to the provisions of section five of this Act, is hereby authorized to grant revocable permits, from time to time, to such individuals, companies or corporations, or their assigns, for the diversion of additional amounts of water from the said river or its tributaries to such amount, if any, as in connection with the amount diverted on the Canadian side, shall not injure or interfere with the navigable capacity of said river, or its integrity and proper volume as a boundary stream, or the scenic grandeur of Niagara and that the quantity of electrical power which may, by permits, be allowed to be transmitted from the Dominion of Canada into the United States, shall be one hundred and sixty thousand horsepower: Provided further, That the said Secretary, subject to the provisions of section five of this Act, may issue revocable permits for the transmission of electrical power so generated in Canada, but in no event shall the amount included in such permits, together with the said one hundred and sixty thousand horsepower, and the amount generated and used in Canada, exceed three hundred and fifty thousand horsepower: Provided always, That the provisions herein permitting diversions and fixing the aggregate horsepower herein permitted to be transmitted into the United States, as aforesaid, are intended as a limitation on the authority of the Secretary of War, and shall in no wise be construed as a direction to said Secretary to issue permits, and the Secretary of War shall make regulations preventing or limiting the diversion of water and the admission of electrical power as herein stated; and the permits for the transmission of electrical power issued by the Secretary of War may specify the persons, companies or corporations by whom the same shall be transmitted, and the persons, companies or corporations to whom the same shall be delivered.

Sec. 3. That any person, company, or corporation diverting water from the said Niagara River or its tributaries transmitting electrical power into the United States from Canada, except as herein stated, or violating any of the provisions of this Act, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding two thousand five hundred dollars nor less than five hundred dollars, or by imprisonment (in the case of a natural person), not exceeding one year, or by both such punishments, in the discretion of the court. And, further, the removal of any structures or parts of structures erected in violation of this Act, or any construction incidental to or used for such diversion of water or transmission of power as is herein prohibited, may be enforced by the order of any circuit court exercising jurisdiction in any district in which the same may be located, and proper proceedings, to this end, may be instituted under the direction of the Attorney-General of the United States.

Sec. 4. That the President of the United States is respectfully requested to open negotiations with the Government of Great Britain for the purpose of effectually providing, by suitable treaty with said Government for such regulation and control of the waters of Niagara River and its tributaries, as will preserve the scenic grandeur of Niagara Falls and of the rapids in said river.

Sec. 5. That the provisions of this Act shall remain in force for three years from and after date of its passage, at the expiration of which time all permits granted hereunder by the Secretary of War shall terminate, unless sooner revoked, and the Secretary of War is hereby authorized to revoke any or all permits granted by him by authority of this Act, and nothing herein contained shall be held to confirm, establish, or confer any rights heretofore claimed or exercised, in the diversion of water or the transmission of power.

Sec. 6. That for accomplishing the purposes detailed in this Act the sum of fifty thousand dollars, or so much thereof as may be necessary, is hereby appropriated from any moneys in the Treasury not otherwise appropriated.

Sec. 7. That the right to alter, amend or repeal this Act is hereby expressly reserved.

It will be seen that this Bill is only a temporary measure, and intended to control conditions at Niagara, pending the negotiation of a treaty."

In the meantime application has been made by the Secretary of War of the United States for the privilege of exporting into the United States, power, as follows:

The Ontario Power Company 90,000 H. P. The Canadian Niagara Power Company 125,000 H. P. The Electrical Development Company 62,000 H. P.

Final action has not as yet been taken, but in the meantime it has been recommended by the American Section that permits be granted as follows:

In the opinion of your Commission, if any treaty be had with relation to use of these waters, the proportions recom-

- mended and agreed upon by the Joint Commission should be adhered to.

The Ontario Power Company, through its ally, The Niagara Lockport and Ontario Company, has built transmission lines in New York State, in duplicate, and in branches, throughout a territory one hundred and fifty miles long and twenty miles wide at an expense of upwards of \$4,000,000, and for several months has been delivering power at the extreme end of the line.

This Company has not so far made any serious effort to supply the Ontario market.

Mr. Paul K. Cravath, representing The Niagara Lockport and Ontario Power Company, in his address before the Secretary of War at Washington, stated that his Company had entered into a contract with the Ontario Power Company to take from them a minimum of 60,000 horsepower at the international boundary line, and had reserved the option to take increased power to the amount of 180,000 horsepower, which would be the total capacity of the Ontario Power Company's works.

This Company has neglected the City of Buffalo, leaving that market to the Canadian Niagara Power Company, and has extended its lines to Rochester and Syracuse. They are at present developing something under 60,000 horsepower, and it is stated by Mr. Cravath that they have already existing closed contracts for 90,000 horsepower, all on the American side.

The Canadian Niagara Falls Power Company are in a position to develop at present about 55,000 horsepower, all of which will be supplied to customers in the neighborhood of Niagara Falls on the American side, and to the City of Buffalo and its contiguous outlying districts.

This corporation has not made any effort so far to supply the Canadian market.

The Electrical Development Company, which is more particularly a Canadian corporation, has built a transmission line to the City of Toronto: They have qualified themselves to produce about 50,000 horsepower in the immediate future.

This Company is making strenuous efforts to have immediate permission to export to the United States, power to the extent of 53,000 horsepower.

In view of these conditions, and of the special advantages which will be created by a treaty arrangement, your Commission would respectfully reiterate the views which they expressed in their report of the 25th of April, 1906, that your Government, while fully recognizing the rights of these corporations, should so control the export of power from Canada as to protect public interests.

Your Commission are of opinion that when each of the companies, in their agreement with the Park Commissioners, stipulated that they would, "whenever required, from the "electricty or pneumatic power, generated under this agree-"ment, supply the same in Canada (to the extent of any quan-"tity not less than one-half the quantity generated), at prices "not to exceed the prices charged to cities, towns and con-"sumers in the United States, at similar distances from the "Falls of Niagara, for equal amounts of power and for similar "uses." They do not comply with the conditions of their agreement unless and until they have severally or jointly built transmission lines in Canada to an equal extent as in the United States.

Your Commission is of opinion that it was of the spirit of the agreement if not the letter that the Companies should themselves reach out to and supply the Canadian public, and that it is not a fair interpretation of the agreement that Canadian consumers should be expected to build transmission lines to Niagara Falls as a condition of receiving any benefit from this public utility.

Irrespective of any agreement, private corporations using the natural resources of Canada, should, in the opinion of your Commission, be compelled to operate the same, so as to afford adequate service in the first place to the Canadian public, and export of power at Niagara should only be allowed to the extent of the surplus after the Canadian market has been fully supplied under reasonable conditions and at fair prices.

THE DETROIT RIVER TUNNEL COMPANY.

The Commission has considered the application of the Detroit River Tunnel Company for permission to tunnel the Detroit River. The regulations determined by the United States War Department were as follows:

- (a) That all operations shall be under the supervision and, so far as concerns the interests of navigation in the waters of the United States, under the control of the officer of the Corps of Engineers, whose district includes the Detroit River; and who is hereinafter referred to as the District Engineer. The Tunnel Company shall furnish such assistance and appliances as the District Engineer shall require in supervising and inspecting the work.
- (b) That the work of constructing the subaqueous portion of the tunnel shall begin at the American bank of the river, and proceed continuously toward the Canadian bank, in order that the working force may acquire experience and training at work where the water is shallowest and less used for navigation; thereby insuring the greatest rate of progress when operations approach the Canadian side, and cross the path usually followed by vessels engaged in through traffic.
- (c) That the Detroit River Tunnel Company may in the prosecution of this work, use a pile platform of the general character described in its application, or, at its option, a floating platform of type to be approved by the District Engineer. Whatever the character of platform used, its length, including all floating plant used in connection with it, shall at no time exceed 600 feet, measured transversely, to the axis of of the stream, and its width measured parallel to this axis, shall be not more than 300 feet.
- (d) That due notification, in writing, shall be given to the District Engineer of the beginning of dredging operations in the navigable waters of the United

States, and that thereafter these dredging operations and the subsequent operations of tunnel extension and completion shall be pushed continuously, except when the river is obstructed by ice, and at a rate of not less than 2,000 cubic yards per day for the dredging, and ten feet per day of completed tunnel, the rate for the tunnel work to be figured from time to time of completion of the first section, 600 feet in length, of the erecting patform, floating or otherwise. That for the purpose of controlling and safeguarding

(e) That for the purpose of controlling and safeguarding navigation in the vicinity of the site of the proposed tunnel, the Detroit River Tunnel Company shall, at its own expense, furnish a fully-equipped tug of suitable size and power, to be constantly on duty at the site of the work, and, so far as the above purpose is concerned, under the exclusive control and direction of the District Engineer. The Tunnel Company shall also maintain such lights as the District Engineer shall require for properly marking every obstruction to navigation that may be introduced in connection with the work in progress.

These regulations were accepted with the approval of the Canadian Department of Marine and Fisheries, and the following resolution was adopted:

"That the International Waterways Commission approve of the plans of the construction of a tunnel under the Detroit River, prepared by the Detroit River Tunnel Company, and submitted to the Commission by the Chief of Engineers of the United States Army, under date of February 13th, 1906, and to the Minister of Marine and Fisheries for Canada, under date of November 16th, 1905, the construction to be carried on on the American side under the regulations contained in the report of the Board of Engineers of the United States Army of date January 26th, 1906, and that the same be carried on on the Canadian side under regulations to be fixed by the Minister of Public Works and the Minister of Marine and Fisheries."

The plan and mode of construction having been submitted to the Minister of Public Works, were approved by the Gov-

ernor-General-in-Council on the 12th of July, 1906, copy of the minutes are appended, marked "A."

The tunnel is in course of construction, and it is expected will be completed within two years.

THE USES AND CONDITIONS OF THE WATERS OF ST. MARY'S RIVER AT SAULT STE. MARIE.

This question was disposed of by an unanimous report of the Joint Commission, dated May 3rd, 1906, in which the following recommendations were agreed upon:

- 1. That no permits shall be granted for the use of the waters of St. Mary's River, or for the erection of structures in, under or over, or the occupation in any manner of the said waters, until plans have been submitted to the Commission for its investigation and recommendation; and the use of the waters nder such permits, shall not be allowed, except upon compliance with the rules hereinafter recommended.
- 2. The Commission further recommends that no grants, permits, or concessions should be made, which directly or by operation of law, may, in any manner, affect the right of the United States or of Canada to control the bed of the St. Mary's River below high-water mark, and especially that none should be made which legally or equitably may be the means of adding to the expense of acquiring lands or rights for the purpose of making improvements in aid of navigation, or which may give an equitable right to compensation in case of the removal of structures in said river.
- 3. That steps be taken to increase the lockage facilities at the Sault Ste. Marie without unnecessary delay.
- 4. That the Governments of the United States and Canada reserve all water necessary for navigation purposes, at present or in the future, and the surplus shall be divided equally between the two countries for power purposes.
- 5. As the Commission regards the interests of the United States and Canada in the preservation of the lake

levels, and in the improvement of the channels and the conservation of the water supply for purposes of navigation as identical and as incapable of efficient protection without joint and harmonious action on the part of the two Governments, it recommends that the rules hereinafter set forth be adopted, and that a Joint Commission be created to supervise their enforcement, or that such powers be vested in the existing International Waterways Commission, subject to such restrictions and reservations as may be deemed advisable.

The Secretary of War, in his annual report makes reference to these recommendations as follows:

"These recommendations received my approval. Embodied "in the report were a series of rules and regulations to govern "the use of water at the Sault. As the enforcement of these "rules involves the creation of a permanent international com-"mission, they have not, as yet, been put in force. It is to be "presumed that provision for a permanent commission will be "arranged in a treaty. The report was approved by me, and "was referred to the Secretary of State."

A letter from the Acting Secretary of State, to the Secretary of War, relating to the same subject, is hereto appended, and marked "B."

THE MASSENA WATER POWER COMPANY.

This question was brought before the Commission by a letter from the Secretary of the Department of Public Works of Canada enclosing letter from the Calvin Company, Limited, to the Honourable the Minister of Public Works, protesting against construction of a dam, which is in contemplation by the Massena Power Company, in the channel of the St. Lawrence River, south of the Long Sault Island.

As the proposed works would be entirely in the United States territory, construction could not, in any case, be permitted without the concurrence of the War Department of the United States, but as no application had been made to that

Department or this Commission, no action was thought necessary.

THE PRESERVATION OF THE CANADIAN SHORE ALONG THE DETROIT RIVER.

At the meeting, held by the Commission on the 3rd of May, 1906, at Buffalo, N. Y., Mr. Louis Coste, one of the Canadian Commissioners, brought up the question of the injury done to the banks of the connecting channels of the Great Lakes by reason of the speed of boats traversing those channels.

A petition from the Reeve of the Township of Malden, in the County of Essex, to the International Waterways Commission, copy of which is appended, marked "C." An investigation took place, and the Commission decided that every effort should be made to assist the riparian owners in the protection of their property, and an appeal was made to the Engineer Office, in charge of the improvements on the river, with the result that provision was made in a recent contract, under his charge, for protecting the Canadian shores by depositing boulders along that shore.

The Canadian Section of the Commission, in their investigation, reached the conclusion that the removal of large quantities of sand from the Canadian shore by sand suckers, is one of the causes of the cutting away of the bank, and they strongly recommend that steps be taken to prevent this practice.

THE APPLICATION OF THE MINNESOTA CANAL AND POWER COMPANY.

The Minnesota Canal and Power Company, a corporation organized under the laws of Minnesota, proposed to construct reservoirs in the Birch Lake basin in Minnesota, and to conduct the water to be stored therein by artificial and natural channels southward to Duluth. The natural drainage of the Birch Lake basin is northward into the Rainy River, Lake of the Woods, Winnipeg Lake, and finally into Hudson Bay, the water thus forming a part of the international boundary, and finally entering territory which is exclusively Canadian.

At the request of the British Ambassador, that action be deferred until the matter be investigated by the International Waterways Commission, the Department of the Interior suspended action, and the subject was finally referred to the Commission in compliance with a request contained in a letter, dated May 14th, 1906, from the Secretary of State to the Secretary of War. The Commission rendered a joint report to the two Governments, dated November 15th, 1906, in which are the following recommendations, viz.:

- 1. The Commission would, therefore, recommend that the permit applied for be not granted without the concurrence of the Canadian Government.
- 2. As questions involving the same principles and difficulties, liable to create friction, hostile feelings, and reprisals, are liable to arise between the two countries, affecting waters on or crossing the boundary line, the Commission would recommend that a treaty be entered into which shall settle the rules and principles upon which all such questions may be peaceably and satisfactorily determined as they arise.
- 3. The Commission would recommend that any treaty which may be entered into should define the uses to which international waters may be put by either country without the necessity of adjustment in each instance, and would respectfully suggest that such uses should be declared to be:
 - (a) Use for necessary domestic and sanitary purposes.
 - (b) Service of locks used for navigation purposes.
 - (c) The right to navigate.
- 4. The Commission would also respectfully suggest that the treaty should prohibit the permanent diversion of navigable streams which cross the international boundary or which form a part thereof, except upon adjustment of the rights of all parties concerned by a permanent commission, and with its consent.

The Secretary of War, in his report, says, "I still have

this matter under advisement, and expect to render my decision at an early date."

THE CHICAGO DRAINAGE CANAL.

The diversion by the Chicago Drainage Canal of a large volume of water otherwise tributary to the Great Lakes system, has been in consideration by your Commission, and a number of public meetings have been held at which the various interests have been represented.

The Commission hope at an early date to be able to agree upon conclusions and recommendations in regard to this important subject, and submit the same in a special report.

THE APPLICATION OF MR. SMITH L. DAWLEY FOR PERMISSION TO DEVELOP POWER AT LONG SAULT RAPIDS.

In May last, application (copy appended, marked "D"), was made to the Secretary of War of the United States, by Mr. Smith L. Dawley, of Ogdensburg, for permission to construct dykes, retaining wall and such other structures as may be necessary for the development of a water power in connection with navigable approaches to a summer resort, on the United States side of the Long Sault Rapids in the St. Lawrence River.

The Commission have been unable to obtain from the promoters the information necessary to enable them to form an opinion, upon the effect which the granting of this charter would have upon navigation interests, and in the meantime action has been deferred.

THE QUESTION OF A TUNNEL AND INLET PIER FOR THE BUFFALO WATERWORKS.

At a meeting of the Commission, held on the 26th June, 1906, at Buffalo, N. Y., Col. F. G. Ward, Commissioner of Public Works, of the City of Buffalo, appeared before the Commission and stated that the proposed location of the inlet pier for the new waterworks tunnel for the city was in Canadian waters. He further stated that he had requested the

American authorities to make application to the Canadian Government to be authorized to erect the inlet pier in this location, copy of said application to the Governor-General-in-Council and to the Minister of Public Works appended, marked "E" and "F" respectively.

Part of the proposed works being in Canadian waters, the matter was reported upon by Col. H. M. Adams, Corps of Engineers, United States Army, copy of said report appended, marked "G."

Application was also made by the City of Buffalo to Honourable Wm. H. Taft, Secretary of War, copy of said application appended, marked "H."

The Commission having satisfied themselves that the proposed undertaking would not interfere with navigation, passed the following resolution:

RESOLVED: THAT in the opinion of the International Waterways Commission, the tunnel and inlet pier, proposed to be constructed in Lake Erie, by the City of Buffalo for the purpose of furnishing a pure water supply to the city, can be built without injury to navigation or other public interests, and it is recommended that permits for the construction of these works be granted with the proviso that the inlet pier be kept properly lighted at night at the expense of the city.

(Signed) GEO. C. GIBBONS,

Chairman Canadian Section.

(Signed) O. H. ERNST,

Chairman American Section.

Attest:

THOMAS COTE,

Sec. Canadian Section.

The Canadian Government endorsed the above resolution by a minute of the Privy Council, dated 20th July, 1906, copy of which is appended, marked "I."

NAVIGATION AND POWER DEVELOPMENT ON THE RICHELIEU RIVER.

An application (copy appended, marked "J"), which was made by the International Development Company for permission to consruct regulating works in Richelieu River in connection with a combined navigation and power project, was referred by the Secretary of War of the United States to the Commission, by which it was considered at their meeting at Buffalo, November 13th and 15th.

The Joint Commission made a full report upon this subject, which has been submitted to both Governments, from which the following is an extract:

As Lake Champlain is wholly within the territory of the United States, and the proposed works are wholly within Canadian territory, the international questions raised are of some moment. It is, in our opinion, not desirable that either nation should obstruct the natural flow of streams crossing the international boundary to the injury of public or private rights in the other. It is manifest, therefore, that the applicants should furnish conclusive evidence that private rights in the States of New York and Vermont, adjoining Lake Champlain, will not be injuriously affected by the alteration of the lake level as proposed, and that as the Secretary of War of the United States has control of the interests of navigation on Lake Champlain, the said work should not be undertaken without his permission, and should be operated under such regulations as he may direct, with a view to maintenance of the level of the said lake, as the interests of navigation thereon require. It would be possible plan works adapted to the conditions, and in our opinion such works should be permitted, provided they do not interfere with private interests in the United States, and meet with the approval of the Secretary of War, as suggested. We respectfully submit that in any treaty to be had between the two nations in relation to the use of international waters, the principles above suggested should have consideration. We would further suggest that the applicant's Canadian act of incorporation should be amended so as to provide that the maintenance of the works sought to be erected shall be conditional at all times upon compliance with all regulations imposed by the Secretary of War of the United States of America, from time to time, for the preservation of the levels of Lake Champlain.

THE IRRIGATION QUESTION.

The question of the use of the waters of St. Mary's and Milk Rivers, in the State of Montana, and the Province of Alberta, was brought before the Commission, but no action could be taken in the matter, since the American section did not consider that it lay within their powers to deal with the questions.

It may be of interest, however, to give here a brief statement of the salient points of the question. St. Mary's and Milk Rivers both rise in Montana, a few miles south of the boundary line (49th parallel), the former in the Rocky Mountains, the latter, further east, from the eastern slopes of the foot hills. Both rivers flow north into Canada, but Milk River, after a course of over one hundred miles, recrosses the boundary line and finally falls into the Missouri River.

On both sides of the boundary line, in the region which may be reached by irrigation canals, from these rivers, is a large tract of semi-arid country, of little use in its natural condition, but capable of vast development when a regular supply of water is assured. It is probable that the whole water supply of the two rivers might be put to beneficial use on either side of the boundary line. Of the two rivers, the St. Mary's is the more valuable for irrigation purposes, since it is the larger river in average flow, and also has a more constant supply, from the melting of snow at its mountain sources, during the hot months.

In the early days of irrigation in the Western States, the waters of streams were treated by riparian proprietors as property appertaining to their lands, which they could divert

at will, without reference to the rights of other riparian owners. As the water used in irrigation is in great part, if not altogether, absorbed by growing vegetation, or dispersed by evaporation, little is returned to the river below, and the common law rights of the lower proprietors, to the natural flow through their lands, were impaired.

This was of little consequence when irrigating works were limited to the supply of a few cultivated acres, but when the advantages of irrigation came to be more fully recognized, and developments became more extensive, conflicts of interests multiplied, and the necessity of regulation of diversions by law became evident.

Laws for this purpose have been adopted by the several states in which irrigation is employed. These laws vary in different states, and it is not the intention here to discuss the details of the differences between different laws. The general principle behind them all is, however, the rights of the first diverter of water to his beneficial use; assertion of intention to divert is required by record in the registry office, by notice posted at the place of intended diversion, by newspaper advertisement, or the like. Difficulties arise, when there is no authority to apportion the water, from excessive appropriation by one owner to the detriment of the rest, and from the fact that records made against the same stream in different districts are not easily accessible; the intending irrigator difficulty in ascertaining either what appropriations have been made which will lessen the flow to him, or those which have been made below him, and which he should respect.

It was the good fortune of Canada to be able to deal with these questions before they became complicated by vested private interests. In 1894 an Act of Parliament was passed by which the right of use of waters available for irrigation was vested in the Crown, and provision was made for apportionment of the waters, under regulations to be made by the Minister of the Interior. Surveys were made by the Dominion Government to ascertain the most favorable locations for irrigation works, in order that the water might be used to the best advantage. Several irrigation projects have been de-

veloped under this policy, of which the Alberta Railway and Irrigation Company, whose canals connect with both the St. Mary's and the Milk Rivers, is particularly concerned in the present question.

In 1901 an Act of Congress was passed having similar objects. Under this Act, a fund constituted by the sales of public lands in the West is to be used for the construction of irrigation works, where the same will be profitable. The adminstration of the fund is in the hands of the Reclamation Branch of the United States Geological Survey.

While the two laws are alike in establishing federal control of the use of water, they differ in that, under the American law the construction is carried on by public money, the cost being chargeable against the lands benefited. Under 'the Canadian Act construction is carried on by individuals or companies, but strictly under control of the Government which controls the general plan of the works and prescribes the amount of water which may be diverted at a given place, the quantity which may be used for watering a given acreage, and the price which may be charged to the settler for it. The Company is compensated for its work by an allowance on the price of the land sold.

The Alberta Railway and Irrigation Company, organized in 1898, has an extensive canal system supplied for St. Mary's River. They have also a canal by which water may be taken from Milk River, but this has not yet been put in operation.

One of the projects of the United States Reclamation Service is the diversion of water from St. Mary's River to irrigate lands chiefly situated in the lower Milk River region. The canal for this purpose may either discharge into Milk River, whose natural channel would be utilized to carry the water through Canada to where it is to be used, or by a more southern route.

Fears have been expressed that this diversion may prejudicially affect the present settlements on the Alberta Railway and Irrigation Company's lands in Canada, or the future development, which may, in the natural course of things, be expected in that region, and the matter has been the subject

from time to time of diplomatic exchanges between Ottawa and Washington, but no basis of agreement has yet been reached.

The Secretary of War, in his report for the past year, referring to the question of jurisdiction, says:

"Under the law of Congress creating the Commission, its "jurisdiction is limited to the waters whose natural outlet is "by the River St. Lawrence to the Atlantic Ocean. The Can-"adian Government has, from the beginning, desired that the "Commission should consider all questions which may arise "concerning the international waters from the Atlantic to the "Pacific. To enable the American members to do this, further "legislation by Congress is necessary. It would seem proper "to comply with the wishes of the Canadian Government in "this respect."

If the jurisdiction of this Commission is extended as suggested, the matter can be taken up and no doubt some equitable plan of division of these waters can be suggested under the direction of the Joint Commission.

THE LAKE ERIE BOUNDARY QUESTION.

On August 21st, last, Captain Dunn, of the Canadian Fisheries cruiser "Vigilant" seized, as being in Canadian waters, certain nets, the property of the Keystone Fish Company, of Erie, Pa., which had been set in Lake Erie to the north-north-west of Erie. Copy of the departmental instructions under which Captain Dunn made the seizure is appended marked "K."

It was claimed by the Keystone Fish Company that the nets were in American waters, and protest was made to the United States Government against the action of Captain Dunn.

The condition seems to be complicated by differences in the charts as regards the position of the boundary line.

The question was referred to the International Waterways Commission to ascertain whether the American and Canadian charts of the locality agree as to the distance which should be logged from the gas buoys at Erie to the boundary line. The correspondence relating to the complaint of the Keystone Fish Company and the reference to the Commission will be found appended marked "L."

The subject is about to be dealt with in a special report of this Commission which will be submitted in due course.

THE QUESTION OF CONTROLLING WORKS AT THE OUTLET OF LAKE ERIE.

This question, which was especially referred to the Commission by the Act of Congress of 1902, will be taken up by the Commission at an early date.

THE DEATH OF MR. GEORGE Y. WISNER.

Early in July, the Commission lost one of its most distinguished members in the person of Mr. George Y. Wisner, hydraulic engineer of the City of Detroit, Mich. At a meeting held in Toronto on the 24th of July, the appointment of Mr. E. E. Haskell, of Detroit, by the United States Government was announced and the new commissioner presented. At that meeting it was moved by Mr. Gibbons, Chairman of the Canadian Section, seconded by Mr. Clinton and

RESOLVED:—That the members of the International Waterways Commission have heard with profound regret of the decease of their colleague, George Y. Wisner, Esq., on July 3rd, at Detroit, Michigan. In the death of this eminent engineer the Commission has lost an able adviser and valued associate. Upon the great experience and acquirements of Mr. Wisner the Commission always felt it could rely; his fair-mindedness it has never doubted, and his devotion to his duties has ever assured the full and able performance of his duties as a Commissioner. To his widow and family we extend our most sincere sympathy.

That this resolution be inscribed on the minutes and a copy be forwarded to Mrs. Wisner.

CONCLUSIONS.

It will be seen that the Joint Commission have made recommendations leading up to the formation

of a treaty of the most important character, and one which will establish for the first time general principles governing the use and diversion of international and boundary waters.

- I. The report with regard to the Minnesota diversion establishes the principle that there should be no permanent diversion of navigable streams which cross the international boundary or which form a part thereof, except upon adjustment of the rights of all parties concerned by a permanent Commission and with its consent, save:
 - (a) Use for necessary domestic and sanitary purposes.
 - (b) Service of locks used for navigation purposes.
 - (c) The right to navigate.
- 2. The report on the Richelieu River application establishes the principle that neither country should allow any obstruction in the waters of streams which cross the international boundary which would interfere with the natural course of such waters to the injury of public or private rights in the other country.
- 3. Where temporary diversions of the surplus water can be permitted as at Sault Ste. Marie, such diversion should be permitted in like quantity to each country under the supervision of a Joint Commission.
- 4. The position at Niagara Falls has been dealt with having regard to the exceptional circumstances there existing and taking into consideration the large permanent diversion by way of the Chicago drainage canal.
- 5. Other important reports will be submitted in the near future all leading up to the permanent settlement of questions, which unadjusted would be fruitful sources of irritation.

Your Commission desire again as in their former report to acknowledge the fair spirit in which all the members of the American Commission deal with international questions.

Respectfully submitted,

GEO. C. GIBBONS,
Chairman Canadian Section.
W. F. KING,
Member Canadian Section.
THOMAS COTE,
Secretary Canadian Section.

APPENDIX "A."

Extract from Report of the Committee of the Privy Council,
Approved by the Governor-General on the
12th July, 1906.

On a report, dated 29th June, 1906, from the Minister of Public Works, submitting that by the Act 51, Victoria, chapter 93, (1888), the Canada and Michigan Tunnel Company was incorporated, having powers thereby conferred for the building of a tunnel under the Detroit River for railway purposes, from some point at or near the Town of Windsor or the Town of Sandwich, towards the City of Detroit, and by the 35th section of this Act it was provided as follows:

"35. The company shall not commence the said tunnel or any work thereto appertaining until it has submitted to the Governor-in-Council plans of such tunnel and of all the intended works thereunto appertaining, nor until such plans and the site of such tunnel have been approved by the Governor-in-Council, and such conditions as he thinks fit for the public good to impose; nor shall any such plan be altered, or any deviation therefrom allowed, except by the permission of the Governor-in-Council, and upon such conditions as he imposes."

That by the Act 58-59 Victoria, chapter 71 (1895), the name of the company was changed to the "Canada and Michigan Bridge and Tunnel Company," and the undertaking of the company was declared to be a work for the general advantage of Canada.

That by the Act 4-5, Edward VII, chapter 69, (1905), the construction of the tunnel or tunnels authorized by the Acts relating to the company were to be commenced within three years and completed within ten years from the passing of the Act.

That the company, pursuant to the powers contained in said firstly mentioned Act, amalgamated with the Michigan and Canada Bridge Tunnel Company and formed a new corporation under the name of the "Detroit River Tunnel Company," and the agreement of amalgamation was duly

filed in the office of the Secretary of State of Canada on the 23rd August, 1905, notice of the amalgamation, the location of the office in Canada, and the name of the corporation was duly published in the "Canada Gazette."

The Minister states that on the 3rd May, 1906, the Detroit River Tunnel Company has submitted for approval plans of the tunnel as proposed and of the site thereof, the said tunnel starting from a point in the City of Windsor towards the City of Detroit.

That similar plans for the construction of the said tunnel have been approved of by the Secretary of War for the United States, so far as the said tunnel is within the jurisdiction of the United States (copy of instrument dated 9th April, 1906, is submitted, giving permission for the construction of maintenance of said tunnel).

That the chief engineer of the Department of Public Works has reported to the effect that the work is well located, that the site is acceptable and that the general design for the construction is satisfactory.

The Minister, in view of the foregoing, recommends that authority be given for the approval of the plans of tunnel and of site above-mentioned, subject to the following conditions:

That all operations shall be under the supervision and so far as concerns the interests of navigation in the waters of the Dominion of Canada, under the control of an officer to be appointed by the Department of Public Works, who is hereinafter referred to as the Engineer in Charge, the tunnel company shall furnish such assistance and appliances as said engineer in charge shall require in supervising in inspecting the work.

That said tunnel company may in the prosecution of this work use a pile platform of the general character described in its application, or, at its option, a floating platform of type to be approved by the said engineer in charge. Whatever the character or platform used, its length, including all floating plant used in connection with it, shall at no time exceed six hundred (600) feet, measured transversely to the axis of the

stream, and its width measure parrallel to this axis shall not be more than three hundred (300) feet.

That due notification, in writing, shall be given said engineer in charge if the beginning of dredging operations in the navigable waters of the Dominion of Canada, and that thereafter these dredging operations and the subsequent operations of tunnel extension and completion shall be pushed continuously, except when the river is obstructed by ice, and that the rate of not less than two thousand (2,000) cubic yards per day for the dredging, and ten (10) feet per day of completed tunnel, the rate for the tunnel work to be figured from the time of completion of the first section, six hundred (600) feet in length, of the erecting platform, floating or otherwise.

That for the purpose of controlling and safe-guarding navigation in the vicinity of the site of the proposed tunnel, said tunnel company shall at its own expense, furnish a fully equipped tug, suitable size and power, to be constantly on duty at the site of the work, and so far as the above purpose is concerned, either under the exclusive control and direction of the engineer in charge to be appointed by the Department of Public Works of Canada, or under the joint control of this engineer and the district engineer to be appointed by the Government of the United States. Said tunnel company shall also maintain such lights as such engineer in charge shall require for properly marking every obstruction to navigation that may be introduced in connection with the working in progress.

That the engineer in charge appointed by the Department of Public Works of Canada will be given free access to each and every part of the work during its construction, whether such part or portion of the work be in the United States or Canadian waters.

That consent be given to the taking possession by the company of so much of the public beach or lands covered with water or other property indicated on the said plans, as belongs to the Crown, and as may be necessary for the purpose of

constructing and completing the said tunnel and for the convenient use of the same.

The committee submit the same for approval.

(Sgd) JOHN J. McGEE,

Clerk of the Privy Council.

APPENDIX "B."

Department of State, Washington,

July 17, 1906.

The Honourable

The Secretary of War.

Sir:-

I have the honour to acknowledge the receipt of your report on the conditions existing at the Sault Ste. Marie, dated May 3, 1906, and signed by the American and Canadian members jointly of the International Waterways Commission organized in accordance with the provisions of Section 4 of the River and Harbor Act, approved June 13, 1902, which report under date of May 14th last was endorsed with your approval so far as the War Department is concerned, and referred to the Secretary of State with a request that it be forwarded to the President as a basis for negotiations looking to the adoption of a treaty carrying into effect the recommendations of the Commission..

As the proposed negotiations seem likely to involve the consideration of several of the other questions now pending before this Commission, a preliminary list of which appears in the report of the American members of the Commission, addressed to you on December 1, 1905, and printed as Appendix "F" of your annual report for the year 1905, it probably would be advantageous to await the reports of the Commissioners on these questions, if such reports may be expected, before initiating the negotiations on this question with the British Ambassador, in order that the whole subject may be dealt with comprehensively.

The considerations of these questions would naturally be associated with the proposed Niagara River negotiations, for which provision is made in the Act of Congress, approved on June 29, 1906. It will be observed that this Act fixed a limited period for carrying the negotiations on the Niagara River question to a conclusion. It is hoped, therefore, that any further recommendations from the Commission, or the American members of the Commission, with respect to these associated questions, which will require for their enforcement joint or concurrent action by the two Governments under a treaty agreement, may be submitted by the Commissioners as promptly as possible.

Inasmuch as the use of these waters is at present subject to War Department regulations, and apparently some of the recommendations of this report can be carried into effect on the American side of the boundary by executive action under existing laws, without treaty stipulations, it seems desirable that the report should be returned to you, pending the initiation of the proposed negotiations, in order that meanwhile the negotiations referred to may be adopted and enforced without waiting for concurrent action on the Canadian side, if that course seems desirable to you.

I therefore return herewith the original report, retaining a copy of it for the use of this department.

In transmitting this report, I desire to make a matter of record in connection with it, the fact that there is now pending an action brought by the United States against the Chandler-Dunbar Company, one of the power companies located on the American side of the Sault Ste. Marie, which involves some of the questions dealt with in this report, with respect to which the Commissioners have stated their conclusions on the basis of the decision of the lower court in this case, which was against the contentions of the United States. I am advised by the Solicitor-General of the United States, to whose attention this has been called, that an appeal is now pending from this decision, and if the United States succeeds on such an appeal and the decision is reversed, the conclusions of the Commissioners based on the decision below, will require revision. This, however, I understand, relates only to the title to land under-water and to certain lands on the American side of the boundary, and apparently does not diminish the value of the recommendations above referred to.

I have the honour to be, Sir,
Your obedient servant,
(Sgd) ROBERT BACON,
Acting Secretary.

APPENDIX "C."

To the Members of the International Waterways Commission. Gentlemen:—

The Reeve and Council of the Township of Malden, in the County of Essex, Province of Ontario, Canada, respectfully call your attention to the serious damage which the property of riparian owners and the Township Road, along the Detroit River, have suffered within the last five or six years.

Your petitioners believe that the enlargement and deepening of the waterway or channel made for the purposes of commerce, and the building and operating of larger and faster boats consequent thereto, has been the cause of the damage.

The Township has been put to considerable expense in attempting to remedy the evil, and is unable to expend any more or cope properly with the trouble and protect the banks of the river, and the Council humbly asks your Honourable Commission to investigate the matter, with the view of obtaining the necessary assistance from the two Governments who have authorized the expenditure for deepening the river and bringing the larger boats nearer to the shore and throwing their swell and wash strongly against the banks.

On behalf of the Council of the Township of Malden,

(Sgd) ROBERT ATKEN,

Reeve.

(Sgd) JAMES HOMER,

Clerk.

APPENDIX "D."

To the Honourable W. H. Taft, Secretary of War, Washington, D. C.

WHEREAS there exists on Long Sault Island in the Town of Massena, St. Lawrence County, New York, certain conditions favorable to the creation of an attractive summer resort, with navigable approaches thereto and the development of a water power entirely in that portion of the St. Lawrence River that is within the United States.

THEREFORE, application is hereby made to the Secretary of War for permission to construct dykes, retaining walls and such other structures as may be necessary, to carry out the above proposition. We refer to a marked chart of a section of the St. Lawrence River accompanying this application and which is part of the same. The dyke will begin at a point about 36 rods westerly from the east end of the above-named island and on the northerly side of same, and at a point in the shallow water about 300 feet out, or northerly from high-water mark on the shore of said island. Running thence easterly along said shore, keeping the wall out from same about the distance of 300 feet, northerly from the projecting points of the said island to a dam to be constructed at or near, but not beyond the point marked for it on the above-mentioned chart.

The wall at the starting point will rise not more than four feet above high-water mark and will extend level at same height to the dam. The above-mentioned dam shall be constructed with a spill-way or provision for overflow in case of high water. It is the opinion of competent engineers who have examined the proposition, that it will not in any way divert water from the channel, but will rather tend to throw more water into the channel and thus will be a benefit to navigation in that rather shallow portion of the St. Lawrence River.

Respectfully submitted, (Sgd) SMITH L. DAWLEY.

Ogdensburg, N. Y., May 28, 1906.

APPENDIX "E."

Buffalo, July 9th, 1906.

To the Honourable
The Minister of Public Works,

Ottawa, Canada.

Sir:--

The City of Buffalo desires to locate its new intake pier and tunnel in Lake Erie, a portion of which proposed location is in Canadian waters.

I have today made application to His Excellency, the Governor-General of Canada, through the Honourable, the Secretary of State at Washington, D. C., for permission to locate this tunnel as shown on the accompanying maps. I enclose herewith, for your information, a copy of the application to the Governor-General, and would respectfully request that you do what you can to expedite matters, so that the permission required may be obtained with the least possible delay.

Very respectfully yours,
(Sdg) J. N. ADAM,
Mayor, City of Buffalo, N. Y.

APPENDIX "F."

City of Buffalo, Mayor's Office, July 9th, 1906.

To His Excellency,

The Governor-General of Canada.

Through the Honourable, the Secretary of State,

Washington, D. C.

Sir:-

The City of Buffalo is situated at the foot of Lake Erie and along the upper waters of the Niagara River, as shown on the accompanying maps.

It at present takes its water supply from an intake pier in the swift waters of the Niagara River, as shown on the map. This is objectionable, as the water is often more or less polluted, and the intake pier is an obstruction to the free navigation of the river.

For many years the city has been studying the best method of improving its water supply, and by the advice of eminent sanitary and hydraulic engineers, has adopted a scheme of improvement which consists in building a new pumping station near the foot of Porter Avenue, and intake pier in Lake Erie, and a tunnel leading therefrom to the new and old pumping station.

In order to get the best water obtainable, it is desired to locate the intake pier where it will receive the water from the middle of the lake as it flows to the Niagara River, and unpolluted from either shore. The proposed location is shown in red on the accompanying published chart of Buffalo Harbor and on a larger scale on the accompanying blue print. While on the published chart the boundary line between Canada and the United States is not shown, it is understood to lie to the south and east of the proposed pier location, thus leaving the pier and a portion of the tunnel in Canadian territory.

The City of Buffalo desires and asks permission from Canada to locate, build and maintain its intake pier and connecting tunnel in the location shown.

It is desired to state that the pier location is on the edge of the reef on which is located the Horse Shoe Reef Lighthouse, which was built and is maintained by the United States under arrangements made between the two countries. Attention is invited to the fact that the location is out of the ordinary tracks of vessels, which are shown on the published chart, and can be no obstruction to navigation.

The matter has been investigated by the United States engineer at this point, a copy of whose report to the effect that the pier would be no obstruction to navigation is enclosed.

Acting on the information thus obtained, the Government of the United States, through the President and Congress. has passed an act authorizing the City of Buffalo to build the pier and tunnel as proposed. A copy of this law is herewith enclosed.

The proposed intake pier is to be 110 feet in diameter, built of steel and concrete and with a small, wooden, stone-filled landing crib adjacent to it. The crib will be lighted at all times. The tunnel will be about 65 feet below mean lake level, so that it cannot interfere with navigation in the least.

In order that the work may proceed with the utmost rapidity, the City of Buffalo respectfully requests as early action as practicable on this, its formal request to Canada.

Very respectfully yours,

(Sgd) J. N. ADAM, Mayor, City of Buffalo, N. Y.

APPENDIX "G."

Copy of Report of Col. H. M. Adams, Corps of Engineers, on Application of the City of Buffalo, New York, to Construct a Tunnel and Inlet Pier

in Lake Erie.

U. S. Engineer's Office,

Buffalo, N. Y., June 1, 1906.

Respectfuly returned to the Chief of Engineers, U. S. Army.

An Act of Congress approved March 2, 1905, provides:

"That it shall be lawful for the City of Buffalo, in the State of New York, to construct and maintain a tunnel under Lake Erie, Niagara River, Black Rock Harbor and the United States lands known as Port Porter, extending from a point 200 yards more or less, north-east of the Horse Shoe Reef Light, in the Emerald Channel, ten thousand feet to the present pumping station of the City of Buffalo, and to erect and maintain an inlet pier therefrom, said inlet pier to be located in the Emerald Channel, not more than six hundred feet north-east of the present Horse Shoe Reef Light: Provided, That the top of the said tunnel shall be located at least forty feet below mean lake level, and that the City of Buffalo shall maintain a light from sunset to sunrise on the inlet pier, at its own expense.

"The present application is for permission to construct

a tunnel and inlet pier as authorized by the above Act, except that the inlet pier now proposed will be about one thousand feet south-easterly from Horse Shoe Reef Light instead of "not more than six hundred feet north-east" of it. It is not believed that this change in location will injuriously affect navigation.

"The proposed inlet pier, and about one thousand seven hundred and fifty feet of the proposed tunnel will be in Canadian waters, as shown by maps of the Treaty of Ghent, establishing the international boundary line.

"The Horse Shoe Reef Light is also on the Canadian side of the boundary, and on December 9, 1850, at a conference held at the British Foreign Office between Viscount Palmerson and Abbott Lawrence, Esq., the American Minister, it was agreed that England should cede to the United States "such portion of the Horse Shoe Reef as may be found requisite for the intended light-house, provided the Government of the United States will engage to erect such light-house and to maintain a light thereon; and provided no fortification be erected on said reef."

A sketch map showing the locality and the boundary line is herewith.

H. M. ADAMS, Colonel, Corps of Engineers.

APPENDIX "H."

Department of Public Works, Buffalo, N. Y., May 24, 1906.

Hon. William H. Taft,

Secretary of War, Washington, D. C.

Dear Sir:-

The City of Buffalo, in the effort to improve its water supply, is desirious of having a new intake pier in Lake Erie, and a tunnel connecting it with a pumping station in the city.

The intake pier, it is proposed, shall be located at about the point indicated on the accompanying map and which point may be described as follows: About 300 feet south of a line adjoining the main Break-water Light and the Horse Shoe Reef Light, and about 1,000 feet from the latter light. The pumping station on shore would be near the foot of Porter Avenue, as shown on the accompanying map, and the tunnel would be practically on a straight line connecting the intake and pumping station, and with its top at least 30 feet below the bottom of the river, lake or improved channels, or practically 53 feet below mean lake level.

The intake pier would be circular in form and about 110 feet in diameter, with a small crib landing pier on its eastern side.

Your permission to build the proposed intake pier and tunnel is respectfully requested.

In asking your permission, it is respectfully represented to you that the location of the proposed intake is well away from any channel ordinarily travelled by lake or river boats, and will not be an obstruction to navigation. Attention is also invited to the fact that the proposed location is in the vicinity of the international boundary line beween the United States and Canada. This line has never been marked on the ground, and it is impracticable to say whether the intake pier as proposed would be on the American or Canadian side of the line until the line is finally determined and marked through As this determination and marking international action. would undoubtedly take a long time, and as the need of the work of improving the water supply is urgent, it is respectfully requested that, in addition to granting vour permission for the intake pier, you take the requisite and proper steps to secure the permission of Canada for the construction of the intake in advance of the final location and marking of the line.

The pier as proposed can work no possible harm to any navigation interests.

With your permission, it is desired that you insert

any conditions which the city should fulfill in in building and maintaining the pier and tunnel.

Respectfully yours,
(Sgd) F. G. WARD,

Commissioner.

NOTE—This letter confirms the plans filed by His Honor, the Mayor, with the chief of engineers on or about Feb. 1, 1906.

APPENDIX "I."

Extract from a Report of the Committee of the Privy Council Approved by the Governor-General on the 20th July, 1906.

On a memorandum, dated 13th July, 1906, from the Minister of Public Works, submitting that by Act of Congress, dated 28th June, 1906, the City of Buffalo, New York, is authorized to construct and maintain a tunnel under Lake Erie, Niagara River, Black Rock Harbour, and the United States lands known as Fort Porter, extending from a point one thousand feet more or less, south-easterly of the Horse Shoe Reef Light eleven thousand feet to the present pumping station of the City of Buffalo, and to erect and maintain an inlet pier therefrom, said inlet pier to be located not more than one thousand one hundred feet south-easterly of the present Horse Shoe Reef Light, the top of the said tunnel at least forty feet below mean lake to be located level, the proposed works being for the purpose of supplying the City of Buffalo with pure water.

That, however, attention is drawn to the fact that the proposed location of these works is in the vicinity of the international boundary line between the United States and Canada. This line has never been marked on the ground and it is impracticable to say whether the intake pier as proposed would be on the United States or Canadian side until the line is finally determined and marked through international action. Application is therefore made to the Canadian Government for permission to construct the said works.

The Minister states that the International Waterways

Commission have examined into the matter. They state that the proposed tunnel and inlet pier can be built without injury to navigation, and they report favourable to the granting of the permission applied for.

The Minister, therefore, recommends that permission be given to the City of Buffalo to build the works above-mentioned in Lake Erie, the location of which is shown on the plan hereto annexed, the said permission, however, to be revocable and subject to the following conditions: The top of the proposed tunnel shall be located at least forty feet below mean lake level, and the City of Buffalo shall maintain at its own expense a light on the said pier from sunset to sunrise.

I'he committee submit the same for approval.

(Sgd) JOHN J. McGEE, Clerk of the Privy Council.

APPENDIX "J." MEMORANDUM.

Application of Chas. W. Smith—Regulating Richelieu River. For navigation and power purposes a continuous flow of not less than 9,000 cubic feet per second is desired in the Richelieu River. The average annual flow is greater than this, being 12,000 cubic feet per second. The low water discharge is 3,000 cubic feet per second and there are periods sometimes extending over six or eight months when the discharge is continuously less than 9,000. It is proposed to store up in Lake Champlain during the high water season enough of the surplus water to supply the deficiency during the low water season. For this purpose regulating works are to be constructed in the Richelieu River, by which the level of Lake Champlain will be maintained at a minimum of 97 feet above tide at New York, and it is stated that these works will not under any circumstances raise the high-water level of Lake Champlain above "the present high-water mark," given as 101.5. Thus it is proposed to give the lake a range of 4.5 feet.

On page 324 of the "Report of the Board of Engineers Upon Deep Waterways Between the Great Lakes and the Atlantic Tide Waters," is a tabular statement of the monthly mean discharge of Lake Champlain for the years 1875 to 1898 inclusive. An examination of this table shows that the period which gave the lowest discharge, extended from September, 1882, to March, 1883; that which gave the next lowest extended from September, 1876, to March, 1877; that which gave the third lowest extended from September, 1883, to February, 1884; and that which gave the fourth lowest from August, 1894, to March, 1895. During these periods the amount flowing was less than 9,000 cubic feet per second, and in order to maintain that flow, it would have been necessary to draw from water previously stored for the purpose, the difference between 9,000 cubic feet and the amount which actually flowed.

The deficiencies for the first period were for

							Cubic feet.
September	1882, 1,400	c. f.	per	second,	30	days	3,628,800,000
October	" 1,800	64	"	"	31	"	4,821,120,000
November	" 3,500	66	- 44	"	30	"	9,072,000,000
December	" 4,600	"	**	"	31	"	12,320,640,000
January	1883, 5,000	66	"	"	31	"	13,392,000,000
February	" 4,000	"	64	"	28	"	9,676,800,000
March	" 2,200	66	66	66	31	"	5,892,480,000

58,803,840,000

The deficiencies for the second period were for

•	-						Cubic feet.
September	1876, 2,400	c. f. pe	er s	second,	30	days	6,220,800,000
October	" 3,000	66	"	"	31	"	6,033,200,000
November	" 3,300	66	"	"	30	"	5,553,600,000
December	" 4,000	44	"	"	31	"	10,713,600,000
January	1877, 4,100	"	"	66	31	"	10,981,440,000
February	" 3,800	44	"	"	28	46	9,192,960,000
March	" 700	44	"	· 61	31	44	1,874,880,000

55,572,480,000

The deficiencies for the third period were for

							Cubic feet.
September	1883, 2,700	c. f.	per	second,	30	days	6,998,400,000
October	" 4,300	"	"	"	31	"	11,517,120,000
November	" 4,300	"	66	"	30	"	11,145,600,000
December	" 4,100	"	"	"	31	"	10,981,440,000
January	1884, 3,700	"	66	66	31	44	9,910,080,000
February	" 300	"	66	"	28	"	725,760,000

51,278,400,000

The deficiencies for the fourth period were for

							Cubic feet.
August	1894, 2,100	c. f.	per	second,	31	days	5,624,640,000
September	" 3,700	- "	"	"	30	"	9,590,400,000
October	" 3,800	66	"	"	31	"	10,177,920,000
November	" 2,100	"	66	66	30	26	5,443,200,000
December	" 1,900	66	"	"	31	"	5,088,960,000
January	1895, 1,200	66	- 66	66	31	"	3,214,080,000
February	" 1,600	eë.	"	"	28	"	3,670,720,000
March	" 1,400	"	"	46	31	"	3,749,760,000

46,759,680,000

The area of Lake Champlain is 436.7 square miles, or 12,174,497,280 square feet. The depth required to store the deficiency during the first of the above periods is 4.81 feet; that for the second period is 4.56 feet; for the third period it is 4.21 feet, and for the fourth period it is 3.84 feet. Adding 1.25 feet for evaporation in eight months, those depths become 6.6, 5.81, 5.46 and 5.9 respectively. The range proposed 4.5 feet, will, therefore, not be sufficient to provide 9,000 cubic feet per second throughout the low water season in very dry years.

A range much greater cannot be admitted without inflicting damage either upon the riparian owners or to navigation interests of Lake Champlain. In determining what is proper high water and what proper low water stage in this connection, it is not fair to take the extremes which the lake may have reached at long intervals in its history. A high water stage reached once in twenty years for example, might inflict damage to property without destroying it, while if reached every year it might cause complete destruction, likewise the obstruction to navigation, caused by extreme low water stage, would be greatly multiplied, if repeated every year.

The table on page 323 of the report on Deep Waterways quoted above, gives the monthly mean stages of Lake Champlain from 1875 to 1898. The highest stage there recorded is 100.13 for the month of April, 1896. Upon only two other occasions did the stage reach 100. To raise the level above 100 regularly every year would be to inflict an injury upon riparian proprietors.

The mean elevation of the lake for the entire period was 96.10. The lowest stage reached was 93.65. During seven years it did not fall below 95. To allow the lake to be drained below 95 every year would be to inflict injury upon the navigation interests.

The limits between which the lake should be regulated are, therefore, 100 as a maximum and 95 as a minimum, notwithstanding that the reserve of water will not, in very dry years, be sufficient to supply 9,000 cubic feet per second.

APPENDIX "K."

Special Instructions to Fishery Officers, ex-officio Magistrates in command of Government Steamers and Vessels, engaged as Fisheries' Police Vessels, in protecting the Inshore Fisheries of Canada.

Ottawa, 16th March, 1886.

Sir,—In the performance of the special and important service, to which you have been appointed, you will be guided by the following confidential instructions.

For convenience of reference, these have been divided under the different headings of Powers, Jurisdiction, Duties and General Directions.

Power.

The power with which you are invested is derived from,

and to be exercised in accordance with the following statutes, among others, "The Fisheries Act," (31 Vic., Cap. 60, of Canada), "An Act Respecting Fishing by Foreign Vessels" (31 Vic., Cap. 61, of Canada).

And the subsequent statute entitled, "An Act to Amend the Act Respecting Fishing by Foreign Vessels," made and passed the 12th May, 1870 (33 Vic., Cap. 15 of Canada; also an "Act to Further Amend the said Act" (34 Vic., Cap. 23, of Canada).

"Chapter 94 of the Revised Statutes (third series) of Nova Scotia" (of the Coast and Deep Sea Fisheries), amended by the Act entitled, "An Act to Amend Cap. 94, of the Revised Statutes of Nova Scotia" (29 Vic., Cap. 35).

An Act passed by the Legislature of the Province of New Brunswick, entitled, "An Act Relating to the Coast Fisheries and for the Prevention of Illicit Trade" (16 Vic., Cap. 69.)

- Also an Act passed by the Legislature of Prince Edward Island (6 Vic., Cap. 14) entitled, "An Act Relating to the Fisheries and for the Prevention of Illicit Trade in Prince Edward Island, and the Coasts and Harbours Thereof."

Also from such regulations as have been passed or may be passed by the Governor-General-in-Council, or from instructions from the Department of Fisheries, under "The Fisheries Act," hereinbefore cited.

As Fishery Officer you have full authority to compel the observance of the requirements of the Fisheries Acts and Regulations by foreign vessels and fishermen, in those parts of the coasts of Canada to which, by the Convention of 1818, they are admitted to privileges of taking or drying and curing fish concurrent with those enjoyed by British fishing vessels and fishermen.

You will receive instructions from the Custom Department authorizing you to act as an officer of the Customs, and in that capacity you are to see that the Revenue Laws and Regulations are duly observed.

Jurisdiction.

Your jurisdiction, with respect to any action you may take against foreign fishing vessels and citizens engaged in fishing,

is to be exercised only within the limits of "three marine miles" of any of "the coasts, bays, creeks or harbors" of Canada.

With regard to the Magdalen Islands, although the liberty to land and dry and cure fish there is not expressly given by the terms of the convention to United States fishermen, it is not at present intended to exclude them from these islands.

Duties.

It will be your duty to protect the inshore fisheries of Canada in accordance with the conditions laid down by the Convention of the 20th of October, 1818, the first article of which provides:

"Whereas differences have arisen respecting the liberty claimed by the United States, for the inhabitants thereof, to take, dry and cure fish, on certain coasts, bays, harbours and creeks of His Britannic Majesty's dominions in America, it is agreed between the High Contracting Parties, that the inhabitants of the said United States shall have, forever, in common wih the subjects of his Britannic Majesty, the liberty to take fish of every kind, on that part of the Southern Coast of Newfoundland, which extends from Cape Ray to the Rameau Islands, on the Western and Northern Coasts of Newfoundland, from the said Cape Ray to the Quirpon Islands, on the shores of the Magdalen Islands, and also on the coasts, bays, harbours, and creeks from Mount Joly, on the Southern Coast of Labrador, to and through the Straits of Belle Isle, and thence northwardly indefinitely along the coast, without prejudice, however, to any of the exclusive rights of the Hudson's Bay Company; and that the American fishermen shall also have liberty, forever, to dry and cure fish in any of the unsettled bays, harbours and creeks, of the Southern part of the Coast of Newfoundland, hereabove described, and of the Coast Labrador; but as soon as the same, or any portion thereof, shall be settled, it shall not be lawful for the said fishermen to dry or cure fish at such portion so settled, without previous agreement for such purpose with the inhabitants, proprietors, or possessors of the ground."

"And the United States hereby renounces forever any

liberty heretofore enjoyed or claimed by the inhabitants thereof, to take, dry or cure fish on or within three marine miles of
any of the coasts, bays, creeks or harbours of Her Britannic
Majesty's dominions in America, not included within the
above mentioned limits; provided, however, that the American
fishermen shall be permitted to enter such bays, or harbours,
for the purpose of shelter and repairing of damage therein, of
purchasing wood and of obtaining water, and for no other purpose whatever. But they shall be under such restrictions as
may be necessary to prevent their taking or curing fish therein,
or in any other manner whatever abusing the privileges hereby
reserved to them.

By this you will observe, United States fishermen are secured the liberty of taking fish on the Southern Coasts of Labrador, and around the Magdalen Islands and of drying and curing fish along certain of the Southern Shores of Labrador, where the coast is unsettled, or if settled, after previous agreement with the settlers or owners of the ground.

In all other parts the exclusion of foregin vessels and boats is absolute, so far as fishing is concerned, and is to be enforced within the limits laid down by the Convention of 1818, they being allowed to enter bays and harbours for four purposes only, viz.—for shelter, the repairing of damage, the purchasing of wood, and to obtain water.

You are to compel, if necessary, the maintenance of peace and good order by foreign fishermen pursuing their calling and enjoying concurrent privileges of fishing or curing fish with British fishermen, in those parts to which they are admitted by the Treaty of 1818.

You are to see that they obey the laws of the country; that they do not molest British fishermen in the pursuit of their calling, and that they observe the regulations of the fishery laws in every respect.

You are to prevent foreign fishing boats and vessels which enter bays and harbours for the four legal purposes above mentioned, from taking advantages thereof, to take, dry or cure fish therein, to purchase bait, ice or supplies, or to tranship cargoes, or from transacting any business in connection with their fishing operations.

It is not desired that you should put a narrow construction on the term "unsettled." Places containing a few isolated houses might not, in some instances, be susceptible of being considered as "settled" within the meaning and purpose of the Convention. Something would, however, depend upon the facts of the situation and circumstances of the settlement. Private and proprietary rights form an element in the consideration of this point. The generally conciliatory spirit in which it is desirable that you should carry out these instructions, and the wish of Her Majesty's Government that the right of exclusion should not be strained, must influence you in making as fair and liberal an application of the term as shall consist with the just claims of all parties.

Should interference with the pursuits of British fishermen or the property of Canadians appear to be inseparable from the exercise of such indulgence, you will withhold it, and insist upon entire exclusion.

United States fishermen should be made aware that, in addition to being obliged, in common with the subjects of Her Majesty, with whom they exercise concurrent privileges of fishing in Colonial waters, to obey the laws of the country, and particularly such Acts and Regulations as exist to ensure the peaceable and profitable enjoyment of the fisheries by all persons entitled thereto, they are peculiarly bound to preserve peace and order in the quasi settled places to which, by the liberal disposition of Canadian authorities, they may be admitted.

Wheresoever foreigners may fish in Canadian waters, you will compel them to observe the Fishery Laws. Particular attention should be directed to the injury, which results from cleaning fish on board their vessels, while afloat, and the throwing overboard of offals, thus fouling the fishing, feeding and breeding grounds. "The Fisheries Act" (Section 14) provides a heavy penalty for this offence.

Take occasion to enquire into and report upon any modes

of fishing, or any practices adopted by foreign fishermen, which appear to be injurious to the fisheries.

General Directions.

You will accost every foreign fishing vessel, within the limits described, and if that vessel should be either fishing, preparing to fish, or should obviously have been fishing within the prohibited limits, you will, by virtue of the authority conferred upon you by your Commission, and under the provision of the Acts above recited, seize at once (resort to force in doing so being only justifiable after every effort has failed), any vessel detected in violating the laws, and send her, or take her, into port for condemnation.

Copies of the Acts of Parliament subjecting to seizure and forfeiture any foreign ship, vessel or boat which should be either fishing, preparing to fish or should obviously have been fishing within the prohibited limits, and providing for carrying out the seizure and forfeiture are furnished herewith for your informatiton and distribution.

Should you have the occasion to compel any foreign fishing vessel or fishermen to conform to the requirements of the "Fisheries Act and Regulations," as regards the modes and incidents of fishing, at those places to which they are admitted under the Convention of 1818, particularly in relation to ballast, fish offals, setting of nets, hauling of seines, and use of "trawls" or "bultows" more especially at and around the Magdalen Islands, your power and authority, under such cases, will be similar to that of any other fishery officer appointed to enforce the Fishery Laws in Canadian waters (Vide Fisheries Act).

If a foreign ship, vessel or boat be found violating the Convention or resisting consequent seizure and monentarily effects her escape from the vicinity of her capture or elsewhere, she remains always liable to seizure and detention, if met by yourself in Canadian waters, and in British waters everywhere, if brought to account by Her Majesty's cruisers. But great care must be taken to make certain of the identity of any offending vessel to be so dealt with.

All vessels seized, must be placed, as soon as possible, in the custody of the nearest Custom Collector, and information, with a statement of the facts and the deposition of your sailing master, clerk, lieutenant, or mate, and of two, at least, of the most reliable of your crew, be dispatched, with all possible diligence to the Government. Be careful to describe the exact locality where the violation of the law took place, and the ship, vessel or boat was seized. Also corroborate the bearings taken, by soundings, and by buoying the place (if possible), with a view to actual measurement, and make such incidental reference to conspicuous points and land marks as shall place beyond doubt the illegal position of the seized ship, vessel or boat.

Omit no precaution to establish, on the spot that the trespass was or is being committed, within three miles of land.

As it is possible that foreign fishing craft may be driven into Canadian waters by violent or contrary winds, by strong tides, through misadventure, or some other cause independent of the will of the master and crew, you will consider these circumstances, and satisfy yourself with regard thereto before taking extreme step of seizing or detaining any vessel.

On capture, it will be desirable to take part of the foreign crew aboard the vessel under your command, and place some of your own crew, as a measure of precaution, on board the seized vessel; first lowering the foreign flag borne at the time of capture. If your ordinary complement of men does not admit of this being done, or if, because of several seizures, the number of your hands might be too much reduced, you will, in such emergency, endeavor to engage a few trustworthy men. The portion of the foreign crew taken on board the Government vessel you will land at the nearest place where a Consul of the United States is situated, or where the readiest conveyance to any American Consulate in Canada may be reached, and leave them there.

When any of Her Majesty's vessels about the fishing stations or in port are met with, you should, if circumstances permit, go on board and confer with the Naval Commander, and receive any suggestions he may feel disposed to give, which

do not conflict with these instructions, and afford him any information you may possess about the movements of foreign craft; also inform him what vessels you have accosted and where.

Do not fail to make a full entry of all circumstances connected with foreign fishing vessels, noting their names, tonnage, ownership, crew, port, place of fishing, cargo, voyage, and destination, and (if ascertainable), their catch. Report your proceedings as often as possible, and keep the Department fully advised on every opportunity, where instructions would most probably reach you at stated intervals.

Direction as to the stations and limits on which you are to cruise, and any further instructions that may be deemed necessary, will from time to time, be conveyed to you.

Considerable inconvenience is caused by Canadian fishing vessels neglecting to show their colours. You will draw the attention of masters to this fact, and request them to hoist their colours without requiring to be hailed and boarded.

It cannot be too strongly urged upon you, nor can you too earnestly impress upon the officers and crew under your command, that the service in which you and they are engaged should be performed with forbearance and discrimination.

The Government relies on your prudence, discretion and firmness in the performance of the special duties entrusted to you.

I am, Sir,
Your obedient servant,
(Signed) GEORGE E. FOSTER,
Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES.

Ottawa, 27th October, 1894.

Sir,—

You are hereby instructed to proceed, without delay, to Amherstburg, and take up your station at the western end of Lake Erie. It is reported to the Department that United States fishing tugs from Erie, Cleveland, Sandusky and Toledo, are in the habit of following the whitefish and herring, which, at

this season, are moving to their spawning grounds among the islands at the western end of the lake and in Detroit River.

Among the islands there can be no doubt about the exact position of the boundary line, so that you can then have no difficulty in deciding whether fishing is carried on by foreign vessels or boats in Canadian waters.

In the event of seizure being made, you will establish exactly the position of the seizure by cross bearings, if necessary you should also buoy the position of the seizure, so that you can accurately fix the position, after having made the seizure, by direct measurements, from the shore. You will note and report to the Department the extent to which fishing is carried on during the fall season and the spawning grounds in the United States waters at the head of Lake Erie.

I am, Sir,

Your obedient servant,

Acting Deputy Minister of Marine and Fisheries.

Captain E. Dunn,

"Petrel,"

care of T. H. Elliott,

Sault Ste. Marie, Ont.

DEPARTMENT OF MARINE AND FISHERIES.

Ottawa, 22nd March, 1894.

Sir,—

I have to instruct you to commission the "Petrel" on the 15th of April or immediately navigation opens. You are to cruise round Pelee and the Canadian islands for the purpose of seizing American gill nets if set. Grapnels are to be used, if necessary, and they are to be constructed as follows: A piece of iron 3 feet long, 3/4 of an inch thick, with a hole punched 4 inches from point and a line attached. You are always to harbour, if possible, in a Canadian port. After remaining around the island until about the 1st of May, then proceed to Point Pelee, and keep a sharp lookout for our own fishermen fishing gill nets without a license, from thence to Rondeau Bay, when the open waters of the bay should be searched for gill nets, returning to Pelee Island about the 15th of May, re-

maining in this vicinity till the beginning of June; this is considered a very important season, as a good many American vessels come over to catch bass during the close season.

The "Petrel" should then return to Lake Huron until about the 20th June, remaining there as long as necessary, and come back to Lake Erie and cruise in front of Point Pelee, Port Stanley, Bruce and Port Burwell, where American nets are reported to fish gill nets at this time of the year in deep waters from 6 to 12 miles from the Canadian shore. She should cruise round these points till the middle of July, then proceed to Georgian Bay, to look after the salmon trout and whitefish fisheries. At the beginning of September you will have to return to look after bass fishing in the neighborhood of the Canadian Islands off and on until the end of the season. You will then have to take particular care with regard to encroachments by foreign fishermen, and also with regard to fishing during close season for whitefish.

Outside these instructions you will use your own discretion as to the best means of protecting the fisheries.

The Commander of the Fisheries Protection Service has been requested to send you a supply of rifles and cutlasses. You will purchase the ammunition at the best and cheapest place. Commander Spain has also been told to send you the general instructions as regards drill, discipline, etc., which are carried on board the other vessels of the fleet under his command. The "Petrel" will be inspected at irregular intervals by the Commander of the Protection Service.

I am, Sir,

Your obedient servant,

(Signed) JOHN HARDIE,

Deputy Minister of Marine and Fisheries.

Captain Dunn, Owen Sound, Ont.

DEPARTMENT OF MARINE AND FISHERIES.

Ottawa, 26th October, 1893.

Sir,—

Adverting to the general instructions given you on the 8th ultimo, I am to direct you to prevent poaching by United

States tugs and boats in Canadian waters, a practice which this Department has reason to believe is extensively carried on in Lake Huron, especially between Point Edward and Point Clarke, and in the neighourhood of Detroit. All nets which you may find set on the Canadian side of the boundary, belonging to foreigners, should be seized and confiscated, and the fact immediately reported to the Department, with full details as to the time and place of seizure, the number and length of nets, etc.

I enclose, for your information and guidance, copy of the Statute relative to fishing by foreign vessels.

You will accost every United States vessel or boat which you may notice in Canadian waters, and if either fishing, preparing to fish or having obviously fished within the exclusive limits, you will, in accordance with the above Statute, seize at once any such vessel or boat detected in violating the law, and immediately place her under the charge of the nearest Collector of Customs for safe keeping; pending action by this Department. Then you are to send, at once, full information of such seizure, with a statement of the fact and the deposition of the captain and one or two of the most reliable and intelligent of the crew. Be careful to describe the exact locality where the unlawful fishing took place, and the vessel or boat seized. Corroborate the bearings taken by soundings and by reference to conspicuous points and land marks, as shall place, beyond doubt, the illegal position of the illegal vessel or boat. In fine you should omit no reasonable endeavour to establish beyond dispute that the illegal fishing was in Canadian waters.

The Department relies upon your prudence to carry out the above directions, with firmness and discretion.

Enquire as you go along, about the manner in which each overseer attends to his work, and report at once any one who may be neglectful or inattentive to his duties.

You will undoubtedly, in the course of your cruise, be able to collect valuable information as regards the present state of the fisheries on each side of Lake Huron, the principal breeding grounds of whitefish, salmon trout and herring; on the places which require the greatest amount of protection, in fact on all matters looking to an improved and more efficient system of protection for these waters. This information should be carefully noted down with facts and data in support, for the purpose of being embodied in a general report which you will make at the end of your cruise.

State when you will be ready to sail on your cruise.

I am, Sir,

Your obedient servant,

Signed) WM. SMITH,

Deputy Minister of Marine and Fisheries.

Captain E .Dunn,

Owen Sound, Ont.

DEPARTMENT OF MARINE AND FISHERIES.

Ottawa, 8th September, 1893.

Sir,—

The Minister having decided to give you another trial as fishery officer in command of the Government Cruiser "Petrel," I have been directed to prepare the following instructions for your guidance.

- 1. Until further orders, you will pay particular attention to the protection of fish and to the enforcement of the fishery laws and regulations in the waters of Lake Huron and Georgian Bay. Should it be found advisable at any time to extend the field of your action, you will be accordingly instructed.
- 2. You are already familiar with the Fishery Laws and Regulations, applicable to the waters under your charge. Within these limits, you will, when necessary, exercise magisterial functions, as provided by Section 2, Chap. 95, Revised Statutes of Canada.

The various Fishery Officers within these limits (a schedule of which is herewith attached), will be under your immediate directions, as well as to the general and special instructions from this Department which may be furnished to you and to them from time to time. You will see that they attend to their work, and report any failure on their part to do so.

3. The duties of your office relate chiefly to the enforce-

ment of the Fishery Laws and Regulations. Copies are herewith, for your information, as well as copies of the latest Departmental reports. Particular attention should be give to the following points:

- (a) The constant inspection and actual examination into the actual conditions of the fisheries within your district;
- (b) I'heir produce and destruction, the men, material, tonnage, etc., engaged in them, the details of the fishing industry as an important branch of the country's commerce;
- (c) You are to ascertain whether abusive practices prevail, and to suggest remedies and improvements of existing regulations, which may be in your opinion needed;
- (d) Mill dams or other obstructions on rivers should be reported upon, with a view to rendering them passable for fish;
- (e) You are to strictly enforce the Statutes respecting sawdust and mill rubbish whenever you find the law violated or complaints are made to you.
- 4. An important part of your duty consists of prosecution "on view," as provided by section 17 of the Statute, or upon the information of the local officers or others, of all offenders against any of the fishery laws or regulations. It is, therefore, desirable to give you some instructions on this head.

You will be careful to advise officers in your district to engage in no litigation, but to report to you in case of necessity, when you will at once conduct such matters to a conclusion. Convicting persons "on view" without any form of process is improper. Power to a magistrate to convict on his own view is, in the main, a summary way of dispensing with all other testimony, except that of the convicting justice. It does not do away with the necessity of a summons, either oral or in writing, neither does it preclude defense. Each case must be duly recorded and a regular conviction afterwards formulated, stating that it is "on view" had of the offence, that a conviction is made. You may cite the offender by oral command, or by summons in writing, after hearing his plea or defense, and after considering any extenuating circumstances if such there be, and such as are admissable in mitigation of the penalty, proceed forthwith, in the presence of the

defendant, to impose a fine, etc., with the alternative of imprisonment. In such cases no complaint is necessary. No part of the penalty accrues to the convicting officer, the whole belongs to the Crown.

The penalty provided by Section 18 of the Fisheries Act for each offence varies from \$1 to \$20, in the discretion of the convicting officer or magistrate. The department favours the imposition of the highest penalty, because, as a rule, small fines do very little good.

All materials, implements or appliances used in contravention of the Fisheries Act, or the regulations made under it, are liable to confiscation in addition to the penalty imposed.

- 5. The mode of rendering your monthly accounts is fully explained in the circular herewith, and the blank forms supplied for your use. In connection with this matter, the Minister desires to impress upon you the necessity of being as economical as possible in your expenses, always keeping the efficiency of the service in view. You will keep a full and complete diary of every days' work, in which you will note down not only the name and address of every one to whom you pay money, but the purpose for which such money was expended; the reasons for every journey; the results of each visit, etc.
- 6. As early as possible after the 1st of December, you will furnish this department with a full and detailed report of your operations and the state of the fisheries within the district under your charge. You will append to this report full returns of the yield of the fisheries of the whole division, for which purpose blank forms will be sent you.
- 7. The principal part of your division where illegal fishing is known to be most prevalent, is on the north-eastern coast of Georgian Bay, between Moon River and Byng Inlet. This part of the coast is under charge of Overseer Jackson, of Midland Harbour. On your first visit to that part of the coast, you will take him with you, his intimate knowledge of the localities and of the fisheries will be of great advantage to you.
 - 8. A good deal of illegal fishing is also carried on near

the mouth of French River, around the Bustard Islands; at Badgley Island, near Wikivemikong and at Little Current. These places are under charge of Overseer Elliott, of Sault Ste. Marie, with whom you will arrange to accompany you when you visit these localities.

9. The department has also reason to believe that a good deal of illegal fishing takes place every fall at the Fishing Islands, Lake Huron, as well as at other places in that neighbourhood, along the coast of the County of Bruce.

In this connection you will see that no seine hauling is done at Sauble Beach.

- a sharp lookout over freezers and shipping of fish during the close season. The department has reason to believe that a great many evasions and violations of the law occur through neglect of fishery officers on this head; especially at Collingwood, where Overseer Donaldson is located. You will direct him to maintain a strict watch over the Nottawasaga River and see that no illegal fishing is carried on there.
- Overseer Elliott, and the extent of his work. It is therefore unnecessary to give you any special directions on this head. It will be well, however, to remind you to keep in constant communication with him, so as to advise him of any illegal fishing which may take place in the most distant parts of his division, that is to say, Spanish and French Rivers, and around the south and south-eastern shores of Manitoulin Island. In the latter connection, you will keep an eye on Mutchmore's mill at Providence Bay, and see that the law relative to sawdust is strictly carried out.
- vill as usual be from 1st to 30th November, both days inclusive. All the licenses issued this year for fishing in the waters of Lake Huron and Georgian Bay expire on the 31st October. All gill-nets or pound nets which you may find in the water after the 31st October should be destroyed, the fish confiscated and sold and the parties prosecuted.
 - 13. Keep the department regularly and fully advised of

your movements. Telegraph only on matters of importance. Mail facilities are sufficiently prompt for the general requirements of the service.

14. When you require advice, communicate with the department giving a full statement of facts involved.

Let every matter in your correspondence form the subject of a separate letter. This obviates confusion and assures prompt attention.

All your official communications should be addressed to the Deputy Minister of Marine and Fisheries.

A supply of stationery is herewith for official use.

I am, Sir,

Your obedient servant,
(Sgd) JOHN HARDIE,

For Deputy Minister of Marine and Fisheries.

Captain E. Dunn,

Owen Sound.

Department of Marine and Fisheries, Ottawa, 10th September, 1890.

Sir,-

I have the honour to inform you of your appointment by His Excellency, the Governor-General-in-Council, to the command of the Government Steam Yacht "Cruiser," and as a Fishery Officer for the Great Lakes and Georgian Bay, with magisterial jurisdiction under the Fisheries Act on these waters and vicinity.

The forms of oath of office, which are herewith, you will be good enough to attest to, before a Justice of the Peace, and return them to the Fisheries Department at your earliest convenience. I also enclose for your information and guidance, copies of the Fisheries Act and Regulations, (the latter having equal power with the Act itself). It is desirable that you should, without delay, make yourself conversant with this Act and the Regulations made.

You have already been directed by telegraph to take command of the "Cruiser" at Owen Sound, and have her at once fitted for service. The vessel is to be employed for the present season in Lake Huron and the Georgian Bay, in the joint protectorate of the customs and the fisheries.

Your instructions and authority as to the former service will be furnished you by the Customs Department, to which department you will report on all matters connected ith that branch of the service.

You will proceed with all possible despatch to cruise in the Georgian Bay, calling first upon Fishery Overseer Shackleton, at Colpoy's Bay. It is desirable that you should take him on board the "Cruiser" and go over his district with him. From Overseer Shackleton and the other overseers upon whom you may subsequently call, you may obtain much general information as regards the fisheries, especially looking to an evil which the department believes to exist in the unlimited use of gill-nets and the totally inadequate fee of \$5 per boat, which is now paid for the privilege of a season's fishing with 6,000 yards of gill nets.

After leaving Overseer Shackleton, you will (unless more important work present itself), visit Overseer George S. Miller, at Owen Sound, and in turn F. G. M. Fraser, at Victoria Harbour.

Upon completing an inspection of the districts of these overseers, you had better proceed to Manitowaning, and there take on board Overseer A. Drinkwater. It is desirable that he should accompany you around Fitzwilliam, Club. Squaw and other islands south of Manitoulin Island. You will then work your way to Sault Ste. Marie, calling upon Captain Joseph Wilson, fishery overseer at the Sault. You will find Captain Wilson an officer of large experience and able to give you much valuable information, both as regards the customs and the fisheries.

If it can be arranged that Captain Wilson should accompany you over his division, you will find his presence of advantage.

The department has reason to believe that considerable fishing is carried on by United States subjects in the Georgian Bay, without having taken out a license. It will therefore

be your duty to speak all boats you may see fishing. Ascertain the names of the owners and where the boats belong.

To aid you in detecting illegal fishing, a list of the licenses that have been issued through the several overseers is enclosed herewith.

In carrying out the general instructions hereby conveyed, you are at liberty to exercise your judgment in deviating therefrom for the purpose of examining any matters appertaining to the customs service, which you may deem essential.

You are required to carry out the service committed to your charge with the due regard to economy, and at all times keep in view its efficiency, taking notes in all points relating to the fisheries which you may deem of interest to the department.

The length of nets, the service of the mesh, the number of men employed, the markets in which the fish are disposed of, the due observance of the close season, are all details which may profitably engage your attention. The enclosed pay list will inform you as to the crew carried by the "Cruiser" last season; this number is not to be exceeded without the department's authority. You will furnish weekly to this department a copy of the "Cruiser's" log and also fill in the boarding reports with which you have been furnished. The crew will be paid monthly upon a pay list certified by you and transmitted to the department.

In navigating your vessel, there is no need that any risk should be incurred, and you will always have regard for the responsibility attaching to your command. Whenever in waters with which you are not familiar and the presence of a pilot is necessary, you are authorized to engage one. All accounts for supplies or fuel furnished the "Cruiser" are to be rendered in duplicate and certified by you as correct, both as regards the quantity and price, and transmitted to the department for payment. Such reasonable advances for the steamer's incidental expenses as may be necessary, will from time to time be made to you.

The size of the mesh of nets having been fixed at 4½ inches, you are to take great care that no nets are allowed

to be used under this size, and if such are found in use, they are to be seized and destroyed, and you are to prosecute all offenders for any irregularities.

Discretionary power with reference to the offences against the Fisheries Act or Regulations is alone to be exercised by the Minister, after having from you a full report of the case requiring consideration.

The close season for salmon trout and whitefish is from 1st to 30th of November.

I am, Sir,

Your obedient servant,

(Sgd) JOHN TILTON,

Deputy Minister of Marine and Fisheries.

Captain E. Dunn,

Owen Sound, Ont.

APPENDIX "L."

Department of State, Washington, Sept. 5th, 1906.

The Honourable,

The Secretary of War.

Sir,—

I have the honour to enclose herewith copy of a letter from Mr. H. C. Schacht, Secretary of the Keystone Fish Company, of Erie, Pa., transmitting a communication from the commander of the Canadian cruiser "Vigilant," proposing to log and mark by buoys the exact international water boundary line, thereby enabling fishermen to keep on their side of the line.

As it is stated that difference of opinion as to the exact location of the boundary line exists between the interested parties, I should be very much obliged if you should cause this to be referred to the International Waterways Commission, with the enquiry whether it is known that the American and Canadian charts of the locality agree as to the distance to be logged from the gas buoy at Erie to the boundary line on the usual fishing grounds. An examination some years ago showed that the maps of the Ghent Commissioners were

not accurately scaled, Lake Erie being drawn wider than it really is, so that the distances logged according to those maps from either shore to the treaty boundary as drawn thereon would lap appreciably at the middle of the lake.

I have the honour to be, Your obedient servant,

ROBERT BACON,

Enclosure.

Acting Secretary.

From H. C. Schacht as above, August 25, 1905, with enclosure.

KEYSTONE FISH COMPANY,

Erie, Pa., August 25, 1906.

Honourable Secretary of State,

Washington, D. C.

Sir,—

Referring to the attached copy of communications received from Capt. Dunn, of the C. G. S. "Vigilant," would ask if it could not be arranged to have one of the American cutters operate in conjunction with Captain Dunn to establish the exact location of the boundary line.

There seems to be considerable difference of opinion between our captains and Captain Dunn as to the location of the line, and we would urge that immediate action be taken in this matter. There are from 40 to 50 boats operating out of this port at the present time and a seizure may be made any day.

Awaiting your prompt action, we remain,

Respectfully yours,

KEYSTONE FISH CO.,

H. C. Schacht, Secretary.

Keystone Fish Company, Erie, Pa.

Sir,—

If the fishermen intended setting their nets in their own waters and in the future intend to do so, I would make this proposition to them:

That they furnish several large conspicuous buoys and

send a responsible person with me, I will come over there and log the distance for them from the gas buoy at Erie to the line where they usually fish and they will then be enabled to keep on their side of the line if they desire to do so.

They can communicate with me at Port Stanley.

Very truly yours, E. DUNN, Commanding "Vigilant."

Department of State, Washington, September 7th, 1906.

The Honourable,

The Secretary of State.

Sir,-

I have the honour to enclose herewith copy of a letter from the Keystone Fish Company, relative to the seizure by the Canadian cruiser "Vigilant" of the nets of the American steamer Erie, and to refer to this department's recent letter (the 5th instant), on the same subject; namely, agreement as to distance to be logged from a fixed point to the boundary line.

The Keystone Company has been advised that the department has taken steps to find out what the line is and that, in the meantime, their remedy is in the Canadian courts.

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

ROBERT BACON,

Enclosure.

Acting Secretary.

From Keystone Fish Company, August 21, 1906.

KEYSTONE FISH COMPANY, Catchers and Shippers of Fresh Fish.

Erie, Pa., Aug. 21, 1906.

Secretary of Treasury,

Department of Customs, Washington, D. C.

Sir,—

We wish to call your attention to the high-handed action taken by Captain Dunn, of the Canadian cruiser "Vigilant."

On August 20th our steamer "Erie" set 112 nets 14½ miles north-north-west of Erie in a south-westerly and north-easterly direction according to hydrographic charts No. 14,477. These nets were set in United States waters. On the 21st the "Erie" was only able to find 16 nets, the balance having been confiscated by the "Vigilant."

All our captains have positive instructions to keep on this side of the boundary line, and they are as well able to determine the location of the line as Captain Dunn. But neither Captain Dunn nor our captains can determine the location of the line within a few feet.

Could it not be arranged to have an American cutter patrol the line to protect our interests and also definitely determine the location of the line? As it now stands it is left entirely to Captain Dunn.

Our fishing territory is very limited at best and we demand protection for our property when in United States waters. We are at least entitled to fish up to the line.

If Captain Dunn continues in this manner, our boats will be compelled to stay from one to two miles this side of the line to be safe from confiscation.

Our captains cannot be governed by where the "Vigilant" runs in going up and down the lake, as she varies from three to four miles from day to day.

The nets seized were worth from \$550.00 to \$600.00, which amount, we think, should be recovered from the Canadian authorities.

Your prompt attention to this matter will greatly oblige.

Respectfully,

KEYSTONE FISH CO.,

H. C. Schacht.

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