

REPORT  
OF THE  
AMERICAN-CANADIAN  
FISHERIES CONFERENCE



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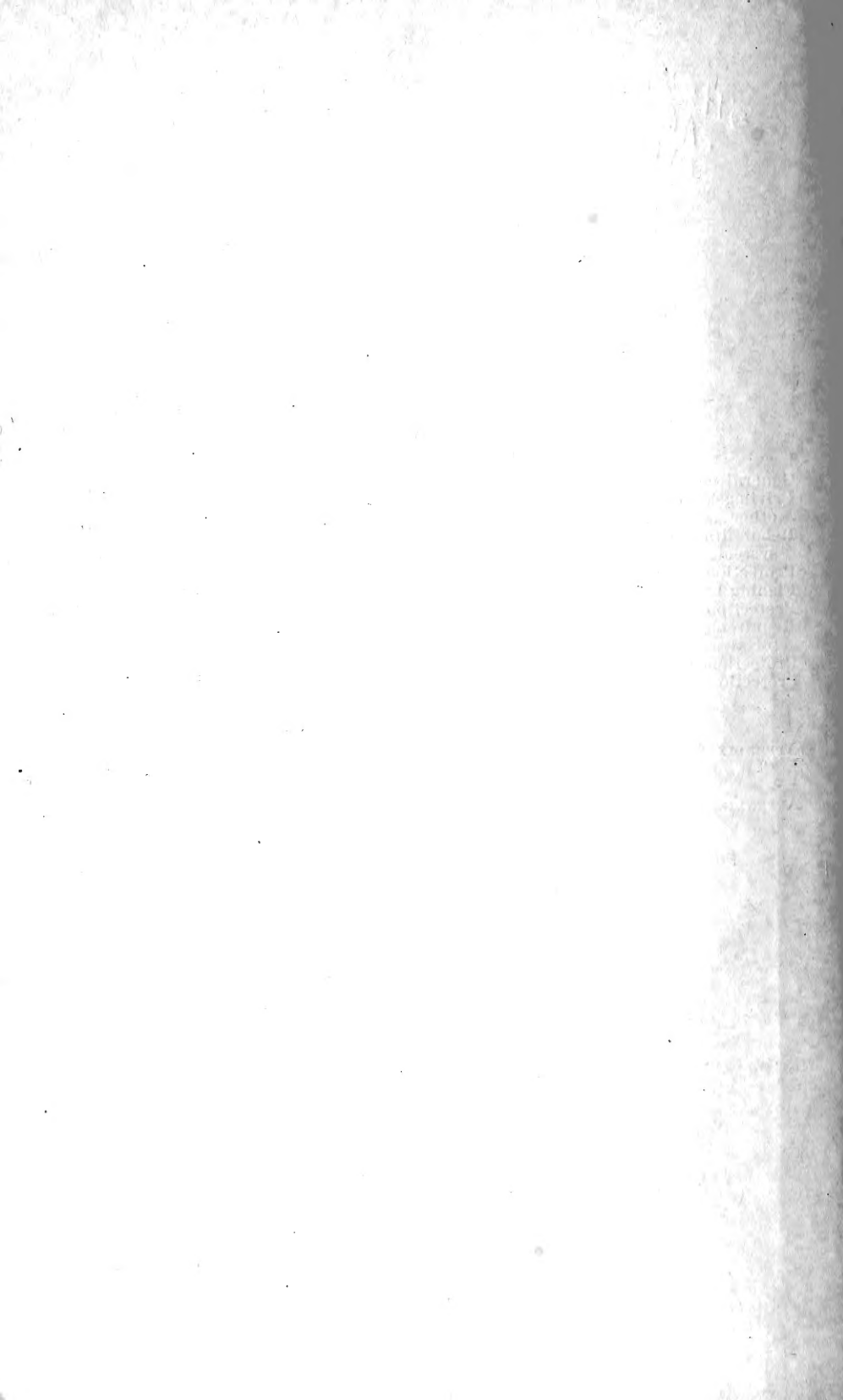
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## CONTENTS.

	Page.
General considerations-----	3
Privileges to the fishing vessels of either country in the ports of the other-----	5
Rehabilitation and protection of the sockeye salmon of the Fraser River system-----	20
Protection of the Pacific halibut fishery-----	32
Fishing by United States lobster well-smacks off Canadian coast-----	36
Protection of the fisheries of Lake Champlain-----	37
Requirements imposed on Canadian fishing vessels passing through territorial waters of Alaska-----	38
Protection of the sturgeon fisheries-----	38
Protection of whales-----	39
-----	
APPENDIX A.—Treaty between Great Britain and the United States concerning the sockeye salmon fisheries of the Fraser River system-----	41
APPENDIX B.—A system of international regulations for the protection and preservation of the sockeye salmon fisheries of the Fraser River system-----	43



**REPORT**  
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**AMERICAN-CANADIAN FISHERIES CONFERENCE,**  
**1918.**

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GENERAL CONSIDERATIONS.

The commissioners constituting the American-Canadian Fisheries Conference were appointed for the purpose of considering the outstanding questions involving the fisheries of the United States and Canada and of reaching a basis for the settlement of those questions if possible. The principal matter in dispute at the time of the calling of the conference was the privileges accorded fishing vessels of each country in the ports of the other; but other subjects of great importance, particularly the rehabilitation and maintenance of the sockeye salmon fishery of the Fraser River system, were also brought to our attention by the respective governments.

The commissioners first met in the city of Washington on January 16, 1918, and thereafter held conferences from day to day until January 25. The different pertinent matters were brought up and considered, and substantial progress was made, but it was found that it would be desirable, before conclusions could be reached, to hold public hearings on both coasts of the United States and Canada. Accordingly hearings were held as follows:

Boston, Mass., January 31 and February 1.

Gloucester, Mass., February 2.

St. John, New Brunswick, February 5 and 6.

Seattle, Wash., April 24 and 25, May 9 and 10.

Prince Rupert, British Columbia, April 30 and May 1.

Ketchikan, Alaska, May 2.

Vancouver, British Columbia, May 7.

New Westminster, British Columbia, May 8.

A copy of the evidence taken at these hearings is appended.

On the conclusion of the hearings at Seattle, the commissioners proceeded to Ottawa, where conferences were held on May 20, 21, and 22, and conclusions were reached in principle, but as there had to be worked out certain details which could not then be completed, adjournment was taken subject to the call of the chairman. The commissioners reconvened on September 4, at Hotel Champlain, Bluff Point-on-Lake Champlain, Clinton County, N. Y., where the concluding meeting was held, a final report was adopted, and the work was brought to a close.

The minutes of all the sessions are submitted herewith.

From the outset the deliberations of the conference were characterized by candor, frankness, and harmony of purpose. The term

“open diplomacy” fittingly describes the methods pursued throughout. The basic thought that animated the commissioners was not only to remove the causes of past controversy and irritation over fishery questions, but to make possible the supplying of the largest quantities of food fish to the largest number of people of the two countries both during the existence of the war and during the momentous post-bellum years when the world’s food problem may conceivably reach its most critical period. It was felt by the commissioners that objections, if any, by local fishermen or even entire communities should not be allowed to stand in the way of measures which are obviously in the best interests of the people of both countries as a whole.

No effort was made by either section of the conference to keep back any information, no matter what its bearing might seem to be; on the contrary, there were at all times a willingness and a desire that the fullest details should be available to both sections on all phases of each question.

It was found, as the inquiries proceeded, that some of the outstanding differences were based on misconceptions or lack of information as to the other side of the case. In fact, in looking back over the history of some of the questions at issue, it is easy to understand how failure to appreciate or comprehend the viewpoint and aims of the other side, and the lack of sufficiently close personal contact, may have been the reason for the original difficulties and the cause of their perpetuation.

It was because of these considerations that it was decided to hold public hearings in all the localities most directly affected or interested. The truth or otherwise of certain contentions and claims could be best established by investigations on the spot at which the commissioners from both sides could be present and take an equal part. It was also felt that it would be desirable to invite the fishery interests in Canada to be represented at the hearings in the United States, and vice versa. It was further decided that if any persons in attendance at the hearings felt that information had not been brought out sufficiently to elucidate any particular points, such persons should be given an opportunity to ask the necessary questions.

The wisdom of this course was disclosed on various occasions, as, when the actual facts were clearly established, local opposition to proposed means of settlement gave place to local support.

The different questions that were submitted and considered by the conference will now be dealt with in detail. These are as follows:

Privileges to the fishing vessels of either country in the ports of the other.

Rehabilitation and protection of the sockeye salmon of the Fraser River system.

Protection of the Pacific halibut fishery.

Fishing by United States lobster well-smacks off Canadian coast.

Protection of the fisheries of Lake Champlain.

Requirements imposed on Canadian fishing vessels passing through territorial waters of Alaska.

Protection of the sturgeon fisheries.

Protection of whales.

PRIVILEGES TO THE FISHING VESSELS OF EITHER COUNTRY IN THE PORTS  
OF THE OTHER.

This matter has been an outstanding source of international complication and irritation for over one hundred years, and, at times, even threatened the peaceful relations of Great Britain and the United States. While article 1 of the treaty of October 20, 1818, measures the liberties of the United States fishing vessels in Canadian waters, the origin of the question antedates the American Revolutionary War, when Great Britain and France were contending for supremacy on this continent. Indeed, nearly all the conflicts that took place between the then British colonists of New England and the French colonists of what are now the Canadian Provinces during the 150 years or more before the battle on the Plains of Abraham in 1759 either were directly due to or included disputes connected with the fisheries.

The New England colonists exploited and developed the fisheries of the northeastern coasts of North America, and, largely unaided, bore the burden of maintaining and defending their interests against French aggression during the wars between the mother countries.

It is, therefore, not surprising to find that when the treaty of peace of 1783, following the Revolutionary War, was being negotiated the United States representatives insisted that they had equal rights with Great Britain in these fisheries, and that they should, therefore, be allowed to continue to exercise those rights. The third article of this treaty reads as follows:

It is agreed, that the People of The United States shall continue to enjoy unmolested the right to take Fish of every kind on the Grand Bank and on all the other Banks of Newfoundland; also in the Gulf of St. Lawrence, and at all other places in the Sea, where the Inhabitants of both countries used at any time heretofore to fish. And also that the Inhabitants of the United States shall have liberty to take fish of every kind on such part of the Coast of Newfoundland as British Fishermen shall use, (but not to dry or cure the same on that Island), and also on the Coasts, Bays, and Creeks of all other of His Britannic Majesty's Dominions in America; and that the American Fishermen shall have liberty to dry and cure fish in any of the unsettled Bays, Harbors, and Creeks of Nova Scotia, Magdalen Islands, and Labrador, so long as the same shall remain unsettled; but so soon as the same, or either of them, shall be settled, it shall not be lawful for the said Fishermen to dry or cure fish at such Settlement, without a previous agreement for that purpose with the Inhabitants, Proprietors, or Possessors of the ground.

This article contained two distinct stipulations, the one recognizing the "right" of the United States to fish on the high seas, which was a right that was then being recognized as appertaining to all nations, and the other granting fishing and onshore "liberty" within British jurisdiction.

These inshore and onshore "liberties" soon began to prove a source of friction between the local colonists of the British provinces and the visiting fishermen from the United States. The residents were, from time to time, obstructed in their lawful fishing operations by their visiting competitors, and they were frequently prevented from fishing on certain portions of their coasts by finding the harbors and creeks occupied by these visitors.

When the War of 1812 broke out Great Britain contended that these liberties were terminated by it, but the United States main-

tained that they were not affected by the war, and as the two nations could not agree on this point the treaty of Ghent, 1814, which put an end to the hostilities, is silent on the fisheries question.

Great Britain, however, insisted on her contention and maintained that in the absence of any provision regarding the fisheries in the new treaty United States fishermen were placed in the same position in British waters as those from other nations, but while maintaining this attitude she expressed willingness to have United States fishermen allowed reasonable privileges and to enter into negotiations to that end. This course was followed, and the question was dealt with by article 1 of the treaty of 1818, which article reads as follows:

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 for ever, in common with 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 coast 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 Belleisle and thence northwardly indefinitely along the coast, without prejudice however, to any of the exclusive rights of the Hudson Bay Company; and that the American fishermen shall also have liberty for ever, 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 of Labrador; but so 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 renounce for ever, 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 his Britannic Majesty's dominions in America, not included within the above-mentioned limits; *Provided, however,* That the American fishermen shall be admitted to enter such bays or harbours for the purpose of shelter and of repairing damages 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, drying, or curing fish therein, or in any other manner whatever abusing the privileges hereby reserved to them.

At the time it was thought that this treaty had at last put an end to the fishery disputes; but it soon transpired that the two countries placed different interpretations upon certain of its important provisions, while the growth of the mackerel fishery and the tendency of the mackerel to school inshore at times, as well as the need for surface bait that was used in this fishery, made the British territorial waters of greater importance than was anticipated when the treaty was being negotiated.

While these questions of interpretations were set at rest from time to time by intervening treaties, they were not finally settled until 1910, when they formed the subject of an unusually important arbitration at The Hague.

The award of the arbitration court removed uncertainty as to the meaning of the article, but it did not meet the matter of the needs and difficulties of United States fishing vessels on the high seas off the British Provinces; and, as will be later shown, owing to restrictive navigation laws in the United States, Canadian fishing vessels



were not able to reasonably avail themselves of the United States markets.

One of the main points long in dispute was as to the meaning of the word "bay" in the treaty. The United States contended that it meant a bay not more than 6 miles wide, or the usual 3-mile territorial limit from either headland, and that in any bay wider than 6 miles at its mouth United States fishermen might carry on their operations up to the 3 miles from a line drawn across the bay at the first point where it ceased to be more than 6 miles wide. Great Britain, on the other hand, contended that, in the absence of any limiting words, it meant a geographical bay, regardless of its width. Great Britain endeavored to enforce her view, and in 1843 the United States fishing vessel *Washington* was seized in the Bay of Fundy more than 3 miles from shore. The United States protested, but Great Britain would not change her attitude. Heated diplomatic discussion went on, and war was certainly imminent, but the good sense of both nations prevailed, and they decided to settle their difficulties amicably. Negotiations for a treaty were started. The Canadian fishermen were anxious to obtain free access to the United States markets; and, under the conditions then existing, access to Canadian ports and the privileges of fishing in Canadian territorial waters and of drying nets and curing fish on shore were of eminent value to the United States fishermen. These negotiations resulted in the reciprocity treaty of 1854, under which, among other things, fish and fish products of either country were admitted into the other country free of duty, and United States fishermen were allowed to fish in Canadian territorial waters of the Atlantic coast, excepting in rivers and mouths of rivers and for shellfish. Similar privileges were accorded Canadian fishermen on the Atlantic coast of the United States north of the thirty-sixth parallel of north latitude, but these privileges were never used.

Owing in part to the conditions that arose between the two countries during the American Civil War, this treaty was terminated in 1866 at the instance of the United States.

Doubtless in the hope of reaching a new arrangement in the matter, the British colonies continued for a time the privileges to United States fishermen by issuing licenses to their fishing vessels on payment of a fee of 50 cents per registered ton. This fee was raised to \$1 per ton in 1867, and the following year to \$2 per ton, but as the number of vessels taking out such licenses fell from 365 in 1866 to 35 in 1869, the licenses were then withdrawn, and in 1870 the treaty of 1818 again became effective. A Canadian fisheries protective force was established, and seizures of and interferences with United States fishing vessels ensued, with the consequent international friction and irritation, but the two nations again got together and negotiated the treaty of Washington, of 1871, which became effective in 1873. It revived the fishery provisions under the reciprocity treaty of 1854, but it also provided for the appointment of a commission to determine the amount of compensation that should be paid by the United States to Great Britain as the difference in the value of the fishery concessions granted United States fishermen in Canadian waters over those granted Canadian fishermen in United States waters. This commission sat at Halifax in 1877, and its

findings have since been known as the "Halifax Award." The amount of the award was \$5,500,000, of which sum \$1,000,000 was apportioned to Newfoundland.

This treaty was terminated in 1885, again at the instance of the United States Government, but negotiations looking to a new arrangement were set on foot, and Canada continued throughout the year 1885 to allow United States fishermen to enjoy the privileges conveyed to them by the lapsed treaty. No new arrangement was, however, reached, so that in 1886 article 1 of the treaty of 1818 was again revived, and a Canadian fisheries protective fleet to enforce its provisions was put on. Seizures of and interferences with United States fishing vessels again followed, with the consequent serious international complications, but negotiations for a new treaty were again entered into, and plenipotentiaries were appointed by the two nations to arrange its terms. On February 15, 1888, they agreed to what has since been known as the "Unratified Treaty of 1888." This treaty contemplated no extra fishing privileges to the United States in Canadian territorial waters. It defined the limits of certain bays and provided that in all others over 10 miles wide the limit of exclusion of United States fishing vessels would be 3 miles from a line drawn across the bay at the first point where it ceased to be more than 10 miles wide. It further provided that if the United States admitted fish, fish products, and their containers free of duty, such articles from the United States would be admitted into Canada duty free, and United States fishing vessels would be granted, without fee, annual licenses authorizing them to purchase in Canadian ports all provisions and outfits, and also to transship their catches and to ship crews.

It was out of this treaty that the so-called *modus vivendi* licenses grew. It was recognized by the treaty makers that the necessary action to make the treaty effective could not be taken by the different Governments before the fishing season of that year came around, and to avoid the complications that would have followed the enforcement of the provisions of article 1 of the treaty of 1818, the British plenipotentiaries offered, as a temporary arrangement to last not longer than two years, that United States fishing vessels on the payment of a fee of \$1.50 per registered ton should receive annual licenses conveying the privileges covered by the treaty. This treaty was ratified by Great Britain, Canada, and Newfoundland, but it failed to receive the approval of the United States Senate.

Canada, in the hope of reaching some satisfactory arrangement, obtained the authority of Parliament for the continuation of the licenses during 1890, and again during 1891; and in 1892 a Canadian statute was adopted giving the Governor in Council authority to renew the licenses from year to year. Under this authority such licenses have been issued each year since that time.

When these licenses were first authorized, sailing vessels only were used in the fisheries, and when vessels having auxiliary power began to be used they were not admitted by the Canadian Government as being eligible for such licenses on the ground that, as they would be able to use them to a greater extent than vessels driven by sails alone, it would, in practice, involve an extension of the privileges contemplated. As more and more United States fishing vessels have been

installing auxiliary power from year to year, fewer and fewer of them have been eligible for licenses. In 1903, the year previous to the limitation of licenses to sailing vessels, 93 United States fishing vessels took out *modus vivendi* licenses, while in 1917 the number fell to 45.

Another feature of the *modus vivendi* license system was that the licenses could be withdrawn altogether any year, merely by the Governor in Council failing to provide the necessary authority for issuing them.

On the other hand, under the United States navigation laws, Canadian fishing vessels visiting United States ports, could not be granted clearances to the high seas, but had to clear for a port in a foreign country, thus having to go around two sides of a triangle to reach the fishing grounds; and when the duty was removed from fish going into the United States an interpretation was placed upon those navigation laws by which Canadian fishing vessels were not permitted to go from the fishing grounds to United States ports with their catches, but were required to ship them in by merchant vessels or by rail. Also there was developed by United States fishing vessels off the western coast of Nova Scotia a method of lobster fishing, which caused great unrest among the local fishermen. With the object of conserving the lobster supply Canada restricts fishing to a portion of the year. As the live-lobster markets of the United States are supplied in a large measure from Canada there is ordinarily an unusually good demand for lobsters in the United States when fishing is prohibited in Canada. To meet this demand certain United States firms fitted out well-smacks—vessels equipped with wells, through which the sea water freely flows, and in which lobsters can be carried alive for a considerable period—to engage in this fishery off the Nova Scotia coast during the closed time for lobster fishing, and when the local Canadian fishermen were not permitted to engage in it, either inside or outside territorial waters. These smacks used the adjacent Nova Scotia harbors as a base for this fishing on the plea that they were coming in nightly for shelter, which Canada urged was clearly at variance with the spirit and intention of the treaty of 1818. This fishing was nullifying, to an important degree, the object and effects of the Canadian close season, and it was causing so much agitation and irritation among the local fishermen that Canada was threatened with the necessity for abandoning altogether the protection to the fishery involved in the close season.

As early as 1912 Canada asked the United States Government to take such steps as might be necessary to stop these well-smacks from engaging in this fishery during the Canadian close season, but no action to that end was taken.

In 1914, following the removal of the United States duty on fresh and unmanufactured fish, the United States Government asked the Canadian Government, in view of the fact that Canada had in the past given United States fishing vessels freedom in Canadian waters and ports in return for free access to the United States markets, that the privileges covered by the *modus vivendi* licenses should be extended to all United States fishing vessels, no matter how they might be propelled, and that the fee thereon be reduced to a nominal sum. No fishing privileges were, however, asked for.

Owing to war and other conditions, the negotiations proceeded slowly, but the Canadian Government finally replied in 1916. It pointed out that on account of the restrictions against Canadian fishing vessels in United States ports, the advantages of the modified United States tariff were largely nullified to them. It also called attention to the previous request for stopping lobster fishing by United States well-smacks off the coast of Nova Scotia during the Canadian close season on that coast.

In view of these conditions, Canada offered (1) to make the *modus vivendi* licenses applicable to all United States fishing vessels, no matter how driven, and (2) to reduce the fee thereon to a nominal sum, conditionally upon (1) the United States Government permitting Canadian fishing vessels to take their catches direct to United States ports from the fishing grounds, to sell them there, and then to be given clearance back to the fishing grounds, and (2) United States well smacks being prevented from engaging in lobster fishing just outside Canadian territorial waters during the close time for such fishing in the territorial waters opposite.

The United States Government at that time found itself unable to agree to these proposals, but considered that the advantages of its modified tariff should be sufficient to warrant the extension of licenses to motor-driven vessels, even if the license fee were not reduced.

Meantime, the problem of halibut fishery on the Pacific coast, which had been a cause for discussion and agitation for some years, became more acute.

A brief history of the Pacific halibut fishery as it affects the outstanding questions may be useful at this point.

The existing extensive halibut fishery had its inception in the New England States about 1887. The attention of certain persons there who were engaged in the Atlantic fisheries was drawn to the great abundance of halibut on the Pacific coast, and in that year they sent three fishing schooners out around Cape Horn to Washington to engage in the fishery from there. Apparently it was the intention that these vessels would, during a portion of the year, engage in the pelagic fur-seal fishery, which was then becoming prominent. During its first few years the fishery had a precarious existence, not on account of any scarcity of halibut but because of the difficulty of satisfactorily transferring the catch to the New England States markets, where at that time the only important demand existed.

In or about 1892 the transportation facilities were substantially improved by the Northern Pacific Railway, and the industry began to grow. The New England Fish Co. established a branch at Seattle, and, owing to the greater proximity to Vancouver of the fishing grounds, and to the fact that equally favorable transportation facilities were available over the Canadian Pacific Railway, it opened a branch at Vancouver in 1894. The company asked the Canadian Government for permission to use United States vessels in its fishing operations, in order that it might ship its catches to the United States markets, in bond, and thus escape the United States import duty, which was then one-half cent a pound. This privilege was refused, and until 1897 the company used Canadian fishing vessels, and paid the duty on such fish as it shipped into the United States. When

the United States duty was increased to 1 cent a pound the company again approached the Canadian Government, and represented that in view of this increased duty it would be necessary to discontinue business in Vancouver unless it were granted the privilege of using United States fishing vessels in its operations. There was a strong local objection to granting this concession, on the ground that local Canadian firms could not compete in the industry, but it was decided, in order to retain the business in Vancouver, to grant the privilege experimentally. The first concession, which was made by Order in Council dated November 8, 1897, read as follows:

That for the period of six months hereafter next ensuing, foreigners or foreign corporations bringing fresh fish in American bottoms to any port in British Columbia shall be permitted to land such fresh fish at such port, without payment of duties, and transship the same in bond to any part of the United States of America, under such rules or regulations as the Minister of Customs may determine.

From the outset United States fishing vessels bringing their catch to a British Columbia port to ship in bond were permitted to purchase all supplies and outfits and to ship crews in such ports.

These privileges were continued from year to year thereafter by Orders in Council without any important modifications until 1915, when the Grand Trunk Pacific Railway began operating from Prince Rupert. In that year the regulation was extended so as to allow boats to sell their fish in bond as well as to ship in bond, the object being to enable the smaller boats that did not have selling connections in the East, or that did not produce in sufficient quantities to enable them to make shipments in carload lots, to avail themselves of the privileges. The concession for that year was in the following terms:

During the present calendar year (1915), foreigners or foreign corporations bringing fresh fish in vessels registered in the United States of America to any port in British Columbia shall be permitted to land such fresh fish at such port without payment of duties and transship the same in bond to any port in the United States, or to sell such fish in bond to such local dealer or dealers as may be properly and duly licensed therefor, under the regulations and conditions hereinafter mentioned, which dealer or dealers shall export the same, in compliance with the bonding requirements (without the right, however, in either instance, to sell in Canada for consumption therein, or otherwise, except in bond, any of such fresh fish so landed); and such foreigners and foreign corporations bringing fresh fish in vessels registered in the United States of America to any part in British Columbia, shall be permitted to purchase supplies, and ship crews for such vessels, at any port in the said Province of British Columbia, the whole under such regulations and conditions as the Minister of Customs may determine.

The following year the only modification made was to authorize foreign vessels, before bringing fresh fish to a British Columbia port, to purchase bait on giving an undertaking that the catches made with such bait would be landed at a Canadian port. This proviso read as follows:

*Provided also,* That such foreigners and foreign corporations, before bringing fresh fish to a port in British Columbia, may be permitted to purchase bait at any port in the said Province of British Columbia, upon an undertaking, to the satisfaction of the Minister of Customs, that catches of fish made with any baiting so supplied shall be landed at a port on the mainland of British Columbia and be thence forwarded in bond to a port in the United States, the whole under such regulations and conditions as the Minister of Customs may determine.

When the fishery for halibut began, these fish were in great abundance, and at no season of the year did the vessels find it necessary to proceed farther north than Hecate Strait; but, owing to the intensive fishing that was carried on to meet the ever-increasing demand, the southern waters soon began to show signs of depletion, and year by year vessels found it necessary to proceed farther and farther north, until in recent years most of the halibut have been taken off the Alaskan coast. This aspect of the matter is more fully dealt with in another portion of this report, dealing with the protection of the fishery.

It naturally followed that when the Grand Trunk Pacific Railway was completed and began to afford equally favorable transportation facilities to the eastern markets as the competing transcontinental railways farther south, Prince Rupert proved a very desirable port for fishing vessels to dispose of their catches. It is 600 miles or more nearer the fishing grounds than Seattle. While Ketchikan, Alaska, is still nearer to the fishing grounds, it is not a railway port.

Consequently, most of the United States fishing vessels that were not owned by companies having their headquarters in Seattle and Vancouver soon began to largely resort to Prince Rupert to sell their catches. Several of the larger United States producing companies on the coast found it in their interest to open branches at Prince Rupert, and considerable alarm arose in Washington and Alaska lest the business was going to be lost to them and transferred to Prince Rupert. The belief was entertained and publicly expressed that the Canadian regulations were designed to that end; that proper facilities were not open at Prince Rupert to United States branch establishments to enable them to equally compete with Canadian firms; that the Grand Trunk Pacific Railway and the cold-storage plant of the Canadian Fish and Cold Storage Co. at Prince Rupert were assisted by the Canadian Government with this in view; that the railway did not afford transportation facilities between Ketchikan and Prince Rupert; and that as there was no duty on halibut going into the United States and there was such duty on halibut entering Canada, if caught by United States fishermen, Canadian dealers operating in British Columbia were at a great advantage over the United States dealers operating there or elsewhere on the Pacific coast. It was also claimed that the situation was further rendered distinctly unfavorable to United States fishery interests by a rebate of transportation charges over Canadian railways on shipments into the United States of halibut caught by Canadian vessels, although, as a matter of fact, no rebate ever applied to any shipments of fish destined for or consigned to United States markets. The agitation became so strong that in 1916 a bill was introduced into Congress in the following terms:

That from and after ninety days from the passage of this act no fresh or frozen halibut or salmon from the north Pacific Ocean or its tributary waters shall be admitted into the United States through any foreign country, except when the same shall be in bond from an American port.

This bill was strongly supported at the time but failed to receive the necessary congressional sanction and has not since been pressed.

The review of the negotiations between the two Governments may now be resumed.

After consideration of the reply of the United States Government with regard to the extension of the *modus vivendi* licenses the Canadian Government proposed that as the fishery questions on both coasts were similar in character they should be dealt with together, and it offered to settle the whole matter on the following basis:

1. That the *modus vivendi* be extended to all fishing vessels, by whatever means they may be propelled; that it be applied to the Pacific coast as well as to the Atlantic; and that the annual fee be reduced from one dollar and fifty cents per registered ton to the nominal sum of one dollar per vessel. Also that the renewal of the licenses from year to year be not conditional on an Order in Council, but form part of the arrangement itself.

2. That United States fishing vessels on both coasts be allowed to sell their fish in Canadian ports for the Canadian markets, subject to customs duty, as well as to sell in bond.

3. That Canadian fishing vessels be allowed to purchase bait in United States ports or waters on equal terms with American fishing vessels.

4. That Canadian fishing vessels be allowed to take their catches to United States ports and sell them there, subject to customs duties if any.

5. That fishing vessels of either country visiting ports in the other be given clearances for the fishing grounds if so desired.

6. That the United States prevent American lobster well smacks from fishing off the Canadian coasts during the close seasons for lobster fishing on such coasts.

7. That such arrangement be in force until the expiration of two years after either party thereto shall give notice to the other of its wish to terminate the same.

Following receipt of these proposals the United States Government suggested the appointment of a joint commission of inquiry in order that the whole matter might be properly dealt with. This proposal was favored by Canada. Hence the appointment of the present commissioners and the formation of this International Fisheries Conference.

Such objection to the proposed arrangement as was found to exist in the United States was believed to be based on the following alleged grounds:

#### ATLANTIC COAST.

1. That fishing vessels can be built more cheaply in Canada than in the United States.

2. That the standard of wages paid on United States fishing vessels is higher than on Canadian fishing vessels.

3. That the standard of living on United States fishing vessels is better than on Canadian fishing vessels, and consequently the food bill is greater.

4. That the equipment of United States fishing vessels is of a more expensive character than on Canadian fishing vessels.

5. That the fishing outfit on the United States fishing vessels is usually of a higher grade than on Canadian fishing vessels, and consequently costs more.

6. That more space is required for crew accommodations on United States fishing vessels than on Canadian vessels. The berths in the United States fishing vessels may not be more than two tiers deep, while in the Canadian fishing vessels they may be three tiers deep.

7. That for the above reasons Canadian fishing vessels could operate more cheaply than United States fishing vessels, and if the former were permitted to bring their catches to United States ports

and sell them there they would drive the local fishermen out of the business.

8. That as there is a duty on fish going into Canada and none on fish going into the United States the United States vessels would not be in as advantageous a position in the Canadian ports as would the Canadian vessels in the United States ports.

#### PACIFIC COAST.

1. That the Canadian regulations as a whole, in connection with fishing vessels visiting the ports of that country with their catches, and the bait provision of 1916, in particular, operated so as to draw United States vessels to Canadian ports and to make it impossible for them to transfer their operations elsewhere after once going there; that as a consequence a large number of fishing vessels had already been transferred to the Canadian registry and unless action were taken to prevent it many others would follow.

2. That even under the proposed arrangement United States fishing vessels would not be in a position to fairly compete with Canadian fishing vessels, because while the Canadian vessels would have free access to the United States markets there is a duty on United States caught fish sold in Canada, so that the Canadian fishing vessels would have the freedom of two markets while United States fishing vessels operating from the same ports would be confined to one, and that under conditions that arise in the marketing of fish, this would frequently mean the difference between a loss and a profit and so force the United States dealers out of business.

On the Canadian side such objection as existed to the proposed agreement was based on the following reasons, applicable to both the Atlantic and Pacific Coasts:

That the United States markets, while desirable, are not now essential to the Canadian fishing industry; that Canadian vessels, both from the standpoint of a bait supply and proximity to the banks, can operate more successfully and produce more fish in the same time than vessels operating from United States ports, and consequently if the *modus vivendi* licenses on the Atlantic coast and the special privileges on the Pacific coast were done away with altogether, and United States fishing vessels held down to their treaty rights, they could not compete with Canadian vessels in the fishing business.

At the hearings on the Atlantic coast it developed that the objections had no substantial foundation, being largely based on incorrect data.

While there seems to be no doubt that years ago Canadian fishing vessels were built and operated more cheaply than their competitors from the United States, such is not now the case, and there is no known reason that it will be so again. The fishermen are paid on the same basis on the vessels of both countries, with slight differences in detail. The Canadian fishermen, like those on the United States fishing vessels, work hard, and demand and receive the best of food. The cost of food on the whole is practically the same in both countries. The equipment on Canadian vessels does not differ in kind or quality from that on United States vessels. The fishing outfit also is of precisely the same character, and is mainly obtained



from the same manufacturers, who are either in the United States or Great Britain. The same practice is followed regarding crew space in the fishing vessels of both countries. In no instance are berths three tiers deep in Canadian fishing vessels.

The cost of building vessels is now about the same on both sides of the line. The evidence indicates that it is at present even cheaper in the United States than in Canada, but in normal times the difference in the prices of Nova Scotia and United States fishing vessels is due to a difference in the materials used in construction. The first cost of the United States fishing vessel is more, due to the fact that it is built of better and more expensive lumber, and, consequently, it lasts a much longer time. For the first five or six years the Canadian vessel would be the cheaper, but from that time on the cost of maintenance would be much greater, and when the Canadian vessel is worn out the United States vessel is still in good condition; so it may be questioned whether in the long run a United States fishing vessel is not even cheaper than a Canadian one. As this information was brought out the local objections in the United States to an arrangement of the proposed character largely disappeared.

It also developed at the inquiries conducted by the commissioners that from the outset the great weight of opinion of those directly interested in the United States fisheries and fishery trade favored the fullest and freest intercourse and privileges for the fishing vessels of both countries. It was generally admitted that the existing restrictions had the effect of limiting production, and that, particularly at this time, such is not justified, but on the contrary that the two countries should assist in every feasible way in increasing production and enlarging the demand for fish. Taking into consideration the serious shortage and high price of meat on this continent at the present time, and with the proper facilities for the transportation of fish and intelligent advertising, it should be within the limits of speedy achievement to increase the consumption of fish an average of 1 pound per family per week. This would involve an addition to the available fish supply of both countries of over 1,000,000,000 pounds, to produce which there do not exist facilities in both countries combined.

There was everywhere exhibited a strong feeling that all old causes of differences should be permanently removed, and that such should be done on a basis that would be equal and fair to both countries, so as to prevent the possibility of their revival. What was aptly expressed as a "fifty-fifty basis of settlement" found general favor.

There was marked objection in New England to the proposed requirement of any license or license fee, and this objection was none the weaker because it was sentimental. It was urged that as the proposed fee is purely nominal, it could not be an important factor, and, while the principle of equality might be met by requiring licenses in both countries, it would be much more satisfactory to have no such requirements at all.

It was also represented that at times it would not only be convenient but would result in the saving of fish, if United States fishing vessels were permitted to dress and salt their catches on board ship

in Canadian harbors, and that time would be saved if, while in those harbors, they were permitted to mend fishing apparatus.

On the Canadian side the granting of these privileges, as well as the others, in the above proposal, was generally favored, providing that the facilities asked for in the United States ports were authorized and that the fishing by lobster well-smacks outside Canadian territorial waters during the close time for fishing in the territorial waters opposite was stopped. The larger firms felt that the opening of the United States ports to Canadian fishing vessels would be more advantageous to them than otherwise, as it would make it more difficult to control the movements of the vessels; but, like their American competitors, they were anxious for all sources of irritation between the two countries to be removed.

The evidence also showed that when fishing is carried on by steam trawlers (which type of vessel is rapidly increasing) there is comparatively little necessity for resorting to Canadian ports, and that so far as this fishery is concerned the vessels could get along without embarrassment if all local privileges were withdrawn in either country. While these privileges would be of much value to sailing or motor-power vessels, there would accrue marked advantage to local merchants by the sale of bait, supplies, outfits, etc.

In the light of the information before the conference, of the results of the hearings on the Atlantic coast, and of the urgent need of removing all obstructions to the greatest possible production of food and the freest movement thereof, the United States section of the conference, following its return to Washington, took up the question of immediately removing for the term of the war the restrictions imposed on Canadian fishing vessels in United States ports, and recommended that all such restrictions should be removed. This recommendation was approved by the President, and on the 21st of February last, the Secretary of Commerce issued an order to the collectors of customs, of which the following is a copy:

To promote the vigorous prosecution of the war and to make the utmost use jointly of all the resources of the nations now cooperating, you will permit, during the war, Canadian fishing vessels and those of other nations now acting with the United States to enter from and clear for the high seas and the fisheries, disposing of their catch and taking on supplies, stores, etc., under supervision as in the case of merchant vessels entering and clearing for foreign ports, except as to tonnage tax and other charges specifically imposed on entry from and clearance for foreign ports.

The Canadian section of the conference also recommended to its Government that during the war the privileges desired by the United States Government for the fishing vessels of that country in Canadian ports should be granted without the requirements of a license, and following the communication of this action of the United States Government to that of Canada an Order in Council was approved on March 8, 1918, of which the following is a copy:

The Minister of The Naval Service recommends, under the authority of the War Measures Act, Chapter 2, of the Statutes of 1914, that during the war United States fishing vessels, in addition to their treaty rights and privileges, shall be permitted to enter any port in Canada, without the requirement of a license or the payment of fees not charged to Canadian fishing vessels, for any of the following purposes:

(a) The purchase of bait, ice, nets, lines, coal, oil, provisions, and all other supplies and outfits used by fishing vessels, whether the same are of a like character to those named in this section or not;

- (b) Repairing fishing implements;
- (c) Dressing and salting their catches on board ship;
- (d) The shipping of crews;
- (e) The transshipment of their catches;
- (f) The sale thereof locally on payment of the duty.

The Minister further recommends that the fees paid on licenses already taken out for the present calendar year be remitted.

The committee concur in the foregoing recommendations and submit the same for approval.

Thus, for the term of the war, and largely on account of war, this question, which for more than 100 years has been the cause of almost continuous international irritation, at times verging on war, has been settled.

The conference had the advantage of observing the initial operation of the arrangement before holding its hearings on the Pacific coast. As the past restrictions there had been removed, many grounds for complaint on the Pacific coast of the United States were taken away. At the hearings at both Seattle and Ketchikan there was unanimous approval of the arrangement as a war measure, so as to assure the largest supply and the freest flow of food, but there was a general feeling that it would not be satisfactory as a permanent measure unless there was the same access to the markets of both countries. It was urged that while the Canadian market is the smaller one, it is important, and that at present the Canadian dealers having the markets of the United States available to them on precisely the same terms enjoyed by Americans and also their own markets, and being able to produce as cheaply, are in a decidedly advantageous position. There would apparently be general support of such an arrangement as a permanent one if this condition were changed as indicated.

On the other hand, one important witness in British Columbia claimed that such an arrangement would have the effect of handing over to the United States dealers the Canadian fishing business, which had been worked up through years of effort.

There was, however, a strong undercurrent of feeling among United States fish buyers, particularly in Ketchikan, that if open ports were continued, since Prince Rupert is by far the nearest railway port to the fishing grounds, the arrangement would result in building up Prince Rupert, at the expense of Ketchikan and other Alaska ports, and in transferring United States vessels to Canadian registry.

As was previously stated, it had from time to time been urged that in recent years there had been on both coasts a heavy tide of transfers of fishing vessels from the United States to Canada.

An examination of the record shows that these claims are unfounded, and most careful consideration fails to indicate that there are substantial grounds for the fear that Alaska's best interests would not be served by the continuance of the present arrangement.

The transfer of vessels from either country has been restricted since 1916. Lists of transfers from either country to the other during the three years prior to 1917 will be found in the exhibits to the evidence. The United States list contains the transfers to all foreign countries. It will be observed that in 1914, 24 vessels of all kinds were sold to all countries from the United States. Of these, five were sold in

Canada, and of these five only two appear to have gone into fishing. In the same year, 20 vessels were transferred from the Canadian to the United States registry alone. It has not yet been ascertained whether any of these vessels have gone into fishing.

In 1915, 18 vessels were sold from the United States to all countries. Of these, only five were sold in Canada, and of these five but two went into fishing, both into the British Columbia salmon fishery. They were small craft. In that year 14 vessels were sold to the United States from Canada.

In 1916, 32 vessels were sold from the United States to all countries. Of these, 10 were sold in Canada. So far as ascertained three of these went into halibut fishing. They were small vessels, 45 feet long. In the same year, 21 vessels were transferred from the Canadian to the United States registry. The above are taken from the official records of both countries and do not include craft under 5 tons.

There is no evidence that residents of Alaska fishing ports are moving with their families to Prince Rupert. On the contrary, the fishermen stated that they are well satisfied to live where they are and to use Canadian ports when it suits their convenience. This is also the case on the Canadian Atlantic coast, where the conditions are largely like those in Alaska. Indeed, there seems to be unanimity among the fishermen themselves on this point. At the hearings at Ketchikan the fishermen expressed themselves as a unit, urging that the existing new arrangement of open ports should be continued. The representative of the Alaska labor union, which embraces the fishermen, explained that the fishermen as a whole held similar views to those expressed by the fishermen present. It was stated that the Ketchikan fishermen are more prosperous since Prince Rupert became a railway terminus, and that their deposits in the local bank are larger.

It is evident that there was considerable misconception as to the facilities afforded United States fish buyers and shippers at Prince Rupert and as to the conditions under which the business is there handled. Inquiry demonstrated that there is no substantial ground for complaint against the manner in which either the railway or the Canadian Fish & Cold Storage Co. does its business. The fish are sold daily by public auction; all dealers have even chances to purchase. The cold-storage company accepts and efficiently handles all fish that its competitors wish frozen, and at rates about which there was no local complaint. Indeed, the local manager of each United States fishing company expressed himself as having received proper treatment from the cold-storage company.

It had also been claimed that competing United States fish companies were not given proper facilities by the railway, and that no suitable location would be made available to them for a cold-storage plant should they desire to build such. This was not found to be the case. None of the companies have so far desired to establish permanent facilities in Prince Rupert, and the railway company leased them most convenient temporary locations on its wharf on the written agreement or contract that should it find it necessary to move them it would afford them other suitable sites. It was further provided that should permanent sites be desired they would be available in the immediate vicinity of the plant of the Canadian

Fish & Cold Storage Co., which area was set apart when the town site was laid out for such plants.

Your commissioners have at all times kept clearly in view the double purpose in dealing with this matter—the duty that in this critical period every obstacle to producing the largest supply of fish and to the freest movement thereof over the length and breadth of this continent should be removed and the determination that this question which has always been annoying, occasionally becoming intolerable, should be settled for all time in a spirit of mutual concession and in a manner equitable and just to both countries. It is, moreover, their earnest belief that that which is to the best advantage of each of the two countries as a whole can not fail to be of the largest permanent advantage to the fishing industry itself.

The question has been settled for the term of the war by the removal of all the past port restrictions in either country. This settlement as a war measure has, so far as your commissioners have been able to ascertain, the hearty indorsement of all those engaged in the different branches of the business. Some months have elapsed since the new order of things was inaugurated, and your commissioners have attentively watched its working. While Canadian fishing vessels would be expected to visit the United States ports toward the end rather than in the earlier part of the fishing season, already a number of vessels have landed their catches directly at New England ports, and up to September 1 had added to the United States supply of food by over 5,000,000 pounds of fresh fish. On the other hand, United States fishing vessels are freely availing themselves of the privileges afforded them in Canadian ports. Up to the end of August approximately 150 calls have been made by United States vessels at Canadian ports for bait and other requirements in connection with their operation over and above those covered by the treaty of 1818.

On the Pacific coast all the artificial conditions that were hampering the fullest and freest operation of United States fishing vessels have been removed, and the industry has proceeded from that standpoint with the utmost satisfaction, but the barrier of a tariff on one side and not on the other operates there much more than on the Atlantic coast as a serious obstacle to a permanent and satisfactory settlement.

Keeping in view the peculiar nature of this industry, which is carried on by the fishermen of both countries in the same waters and under the same conditions, while in a large measure the same markets must be used by both, your commissioners wish to express the belief that this question can never be permanently removed from the field of discord unless the markets of both countries are available to the fishermen of both on the same terms.

In the light of these facts your commissioners feel constrained to recommend that the Canadian duty on fresh and fresh frozen fish, not including shellfish, be removed, and, with a view to assuring stability in the industry, that the two countries enter into an agreement by which such fish will be admitted customs duty free from either country into the other, and that such arrangement remain in force for 15 years, and thereafter until 2 years after the date when either party thereto shall give notice to the other of its wish to terminate the same.

Our peoples are to-day associates in a world conflict for the vindication of the principles of liberty, justice, and righteousness. This drawing together has enabled us to see as we could not otherwise have seen—what has frequently been asserted but will bear the emphasis of frequent repetition—that it was failure in the past to appreciate the purposes, aspirations, and desire of one another that has so long kept alive questions involving international friction. The ideals of both countries are the same. It is the general experience that no man can go into warfare of any kind without feeling at the end of the struggle that his heart is warm toward his associate and that new regard for and confidence in him have resulted. So it must be with nations, and we would be derelict in our duty if advantage were not taken of this opportunity to forever remove this fishery question from the field of controversy.

Your commissioners are convinced that this can best be achieved and the fishing industry as well as the people of both countries as a whole can best be served by permanently removing all barriers to the production and movement of fish in the two countries.

They therefore recommend that article 1 of the treaty of October 20, 1818, be amended so as to make available in either country, to the fishing vessels of the other, the privileges covered by the instructions of the United States Secretary of Commerce to collectors of customs of that country, dated February 21, 1918, and by the Canadian Order in Council, dated March 8, 1918, in substance as follows:

1. That the fishing vessels of either country may enter, from the high seas, any port of the other and clear from such port back to the high seas and the fishing grounds.

2. That the fishing vessels of either country may dispose of their catches and purchase bait, ice, nets, lines, coal, oil, provisions, and all other supplies and outfits in the ports of either country.

3. That the repairing of fishing implements in the ports of either country be allowed to the vessels of the other country.

4. That the fishing vessels of either country may dress, salt, and otherwise prepare their catches on board such vessels within the territorial waters of the other country.

5. That the fishing vessels of either country may ship their crews and transship their catches in the ports of the other country.

6. That the fishermen of either country may sell their catches in the ports of the other country, subject to local tariff, if any.

If these recommendations meet with the approval of the two Governments, your commissioners suggest the propriety of arranging that the amending treaty be signed on October 20 next (1918). Such would be a most appropriate method of marking the one-hundredth anniversary of the original treaty.

#### REHABILITATION AND PROTECTION OF THE SOCKEYE SALMON OF THE FRASER RIVER SYSTEM.

For the purposes of the sockeye salmon fishery the Fraser River system embraces not only the Fraser River itself and its estuary but the southern portion of the Gulf of Georgia, Washington Sound, and Juan de Fuca Strait.

Five species of salmon frequent this system, viz, the sockeye, the chinook or spring, the coho or silver, the pink or humpback, and the chum or dog. There is also the steelhead, which, though not of the same genus, is commercially regarded as a salmon.

Of these the sockeye has always been the most valuable on the market as a canned fish. Its flesh is of a much deeper color and more oily than that of the other species. Moreover, the Fraser River system sockeye is the choicest of its kind, and brings a higher price than the sockeye of any other region.

All these species are anadromous. That is, they run up from the sea to spawn, and the young are hatched out in the fresh waters of the streams and lakes, from which they descend to the sea while young. The fish remain at sea until they reach maturity and then return to the fresh waters to spawn. A peculiarity of all the Pacific salmons is that they die after spawning, so that they never reproduce more than once.

The salmons return to the watershed in which they were hatched. Indeed, the theory is now commonly held, and has much to support it, that they return not only to the same watershed but to the identical stream or tributary of a stream in which they were born. Thus, each watershed, and possibly each stream, presents its own problem; and so it is that the Fraser River system of salmon fisheries may fail or improve without affecting one way or the other the fisheries of the neighboring areas.

While salmon of all five species spawn in the Fraser River basin and in streams of Washington, Vancouver Island, and the mainland of British Columbia, the sockeye resorts almost exclusively to the Fraser for spawning purposes; and it is the sockeye and its fishery which at this time constitute the most important international question affecting the fisheries of the Pacific coast of the two countries.

A small run of sockeye salmon resorts to the Skagit River, in Washington, but it is relatively unimportant, and its commercial possibilities, owing to the restricted area of the spawning grounds, are sharply limited. For all practical purposes it may be said that all the sockeye salmon that enter Juan de Fuca Strait from the ocean originated in the Fraser and are making their way back to it to reproduce and die.

In coming from the ocean these fish enter the strait on both sides of the boundary line, but after reaching the vicinity of the southern extremity of Vancouver Island the great majority pass over to the United States waters and do not emerge therefrom to any noteworthy extent until they have passed through the channels among the United States islands in Washington Sound. Thus it is that while these fish were hatched in the Fraser River and are proceeding back to it, by far the largest catches have been made in the United States waters. Usually 66 per cent or more of the total catch is taken in the State of Washington.

The Fraser River is potentially the greatest sockeye-producing stream on the Pacific coast. Its tributary lakes and rivers cover an area larger than that of any other stream on the Pacific slope. Under normal conditions of the fishery the spawning sockeyes, overcoming what are apparently insurmountable rapids and falls, ascend

for hundreds of miles and proceed right to the headwaters of the Fraser as well as to the headwaters of its tributaries.

A curious phenomenon of the Fraser River that has occurred at least since the earliest records—those of its discoverer, Simon Fraser—covering the period from 1806 to 1811, is an extraordinarily heavy run of sockeyes every fourth year, followed by three years of small runs, so that the seasons have come to be known as “big years” and “off years” or “lean years.”

What the cause of this was no one can say with finality. There are different theories. The most probable is that at some time prior to 1806 there came down from the mountains into the narrow portion of the river at Hell's Gate Canyon or vicinity a slide which entirely or at least almost entirely blocked the ascent of the salmon, and that it took three years for the pressure and rush of the water to sufficiently wear away the obstruction to enable the salmon to pass, so that in those three years the only sockeyes that effectively spawned were those that normally resorted to the comparatively small portion of the system below Hell's Gate. This theory is strongly supported by the experience of 1913, which will be referred to later.

The sockeyes of the Fraser River are predominately four-year fish. That is, they reach maturity and return to the river to spawn and die when they are 4 years old. It has been ascertained by Dr. Charles H. Gilbert, the most eminent authority on the Pacific salmons, that a part of the runs each year consists of three-year and five-year fish, although the percentage of such is small. This being the case, it is easily possible to account for the presence of a limited number of fish on the spawning grounds above Hell's Gate during the “off years” without invalidating the theory, for there would be a proportion of these fish that would not return to the upper spawning grounds during the fourth years of the cycle of the obstruction but would come back in three or five years and thus begin to build up the “off years.”

As commercial fishing did not begin to any extent until 1876, it is a surprising and disconcerting fact that the “off years,” which were known to have existed so far back as 1806, were not built up to a greater extent.

The year following the inception of commercial fishing on the Fraser River the industry began in Washington (in 1877). For many years sockeyes were the only species canned, and as the market for them increased fishing for them was carried on more intensively. While the “big-year” runs were so enormous as to be unaffected by the immense catches made during them, the “off years” soon began to show coming exhaustion. As the fishery declined the demand went up, and greater efforts were made to increase the output. More and more fishing equipment was used, until, had it not been for the weekly close time, when all fishing was required to be abandoned for a given period so as to give the fish a free run to and up the Fraser River, it does not seem that any appreciable number could have escaped. The fish are met as far out to sea as they can be located with purse seines. Nearly 500 of these great nets were in use in Juan de Fuca Strait and among the islands in Washington Sound last year (1917). Then, nearly 200 traps were placed in



their path along the shores of Washington and among the United States islands in the sound, as well as a few on the west side of Vancouver Island. Some gill nets, ranging up to 3,000 feet in length, were in use in the United States waters, and in the river itself and its estuary over 2,600 gill nets, each 900 feet long and 60 meshes deep, were used.

The Fraser is fished more intensively in proportion to its area and to the supply of sockeyes running therein than are the waters of Juan de Fuca Strait and Washington Sound. The combined length of the nets operated on the Fraser in 1917 was over 445 miles, of which about 400 miles were used in the 15 miles of river between its mouth and New Westminster Bridge. The degree of this intensity is indicated by the fact that for every square mile of river there were, in the section below the bridge, more than 30 linear miles of nets. In the year 1914 the total number of gill nets in use on the Fraser River was in excess of 3,000.

In the development of the fishery, the comparatively light runs of the "off years" were having a greater and greater proportion taken from them, so that fewer and fewer fish were reaching their spawning grounds. The result was inevitable. The fishery is now verging on exhaustion. The depletion of the spawning grounds above Hell's Gate, where during the "off years" the number of fish had always been comparatively small, became so marked as to make it necessary since 1913 to close, for want of an egg supply, the hatcheries established there by the Canadian Government, and thus the river, during the "off years," was back once more to almost complete reliance on the spawning grounds below Hell's Gate.

For years past the success of the sockeye industry in this district has depended on the "big-year" runs. Several of the canneries on both sides of the line were idle during some of the "off years," and some of them more recently have operated only in "big years." In 1913, however, which was a "big year," a disaster occurred which put an end, at least temporarily, to the "big-year" runs and reduced them to the dimensions of an average "off year." In Hell's Gate Canyon there was a small baylike indentation just above the "gate," which, it subsequently transpired, afforded the only available resting place to enable the salmon after rushing through the "gate" to gather their strength sufficiently to proceed through the remainder of this difficult canyon. Blasting operations in the construction of the Canadian Northern Railway roadbed along the side of the canyon caused this resting place to become so filled by rock slides that the salmon could not resort there, and so were carried back below the "gate" by the force of the current. This obstruction was formed shortly before the heavy run of salmon began. As soon as it developed that the salmon were being held back the best engineers available were sent to the spot to consult on the quickest means of overcoming the difficulty. Work was immediately started to clear the obstruction, and a temporary sluiceway to enable salmon to pass up was constructed. Some fish got through this, others were carried beyond by hand, and some got up at the time of high water at the beginning of the run, but not more in the aggregate than in a good "off year," so while the removal of the obstruction was pressed along with all possible energy it could not be completed in time to save

the situation. Countless thousands of sockeyes wore themselves to death in repeated fruitless efforts to get beyond the "gate," their instinct compelling them to keep on trying instead of falling back and going up the lower tributaries, as is evidenced by the fact that these spawning areas were not more thickly resorted to by sockeyes than in other "big years."

Many of the persons engaged in the salmon business clung to the hope that after all sufficient sockeyes had got up to maintain the "big year," and preparations were made by such accordingly for 1917, the returning year of the cycle, but only to find that their hope was vain and that the "big year" was a thing of the past, unless extraordinary measures are taken to restore it.

The fact that these fish pass through the waters of the two countries makes it impossible to properly protect them by independent action. The fishermen of either side are inclined to operate to the limit when the fish are in their waters and place the responsibility for untoward results on those of the other country.

How the fishery has declined will be realized from the following statement of the packs of sockeye salmon for a series of years:

Year.	Fraser River (number of cases).	Puget Sound (number of cases).	Total number of cases.
1902.....	293,477	372,301	665,778
1903.....	204,809	167,211	372,020
1904.....	72,688	109,264	181,952
1905.....	837,489	825,453	1,662,942
1906.....	183,007	178,748	361,755
1907.....	59,815	93,122	152,937
1908.....	63,126	170,951	234,077
1909.....	542,248	1,097,904	1,640,152
1910.....	133,045	248,014	381,059
1911.....	58,487	127,761	186,248
1912.....	108,784	184,680	293,464
1913.....	684,596	1,673,099	2,357,695
1914.....	185,483	335,230	520,713
1915.....	89,040	64,584	153,624
1916.....	27,394	84,637	112,031
1917.....	123,614	411,538	535,152
1918 (estimated).....	15,000	50,000	65,000

Two facts are outstanding: (1) The yearly possibilities of the Fraser River must be measured by the conditions in the "big year." All that is needed to produce the run of a "big year" any season is to have the spawning beds of the whole system seeded as plentifully as in the "big years" of the past. The river is as free from pollution or artificial obstruction as it ever was, and all the conditions for successful spawning are as favorable as in early times. The only deficiency is in the spawning fish. (2) Unless drastic action is taken internationally to save the situation the fishery will become commercially exhausted in a few years. The figures for 1918 clearly evidence this.

It would be an international calamity, involving almost criminal neglect on the part of both countries, if the latter condition were allowed to obtain. On the basis of the present prices the sockeye progeny of this river should be producing annually a food worth over \$30,000,000, this figure being based on the actual pack of the

last "big year," 1913. As it is, the average value for the four years ending 1918 is about \$3,000,000.

In the face of the foregoing, and in view of the fact that there can be no question but that the river can be restored by the proper procedure so that it will produce to maximum capacity every year, it is confidently believed that the interests in the two countries will stand behind the authorities of both in procuring the necessary action to bring this about.

Efforts have been made in the past for mutual arrangements to afford adequate protection, but without success. The most important of these was in connection with the treaty of 1908 for the international protection of the fisheries in the contiguous waters along the entire boundary line. This treaty failed, owing to the fact that the United States Congress refrained from approving the regulations drawn up under its provisions, though they had been approved by the Parliament of Canada. But even if the regulations under that treaty had been approved and made effective they would not have met the present requirements.

The situation is surrounded by outstanding difficulties, and great mutual concessions and forbearance must be exercised by those engaging in the industry on both sides of the line if the necessary steps to restore the fishery are to be taken.

In British Columbia the fishery interests feel very strongly that they have been in an unfair position all through the past years. They point out that while all the fish are bred in the Fraser River the fishermen have been sharply restricted in their operations, being allowed to use gill nets only, in addition to having to submit to a longer weekly close time than is effective in the State of Washington; while their competitors have been permitted to use traps and purse seines, much more capable and economical fishing appliances than gill nets; and they urge that while the fish are bred in Canadian waters and must there be properly protected if the fishery is to be saved from depletion they obtain only one-third or less of the total catch. They contend that they have been called on to do too much of the protecting and are entitled to a more equitable proportion of the fish.

On the other hand, the fishing interests of the State of Washington contend that they have not been taking unreasonable advantage of their more favorable geographical position: that the quantities of fish caught have not been out of proportion to the area of the fishing grounds, the amount of capital invested, and the number of persons dependent on and engaged in the fishery; that the fishing appliances used are suited to their waters and are not only of a character that can be efficiently and adequately regulated, but they are so regulated as to admit of a reasonable escapement of fish to the waters beyond.

Both sides, however, fully realize the absolute need for international action, and are prepared to make sacrifices in order to assure relief. While the proper disposition for essential action may have been lacking in the past it seems now to obtain. The interests on both sides of the line are fully alive to the conditions, and they are evidently prepared to cooperate to save the industry.

While the Canadian Government is fully able to cope with the situation in British Columbia, it is recognized by the commissioners

of both countries that a different condition exists in Washington because of the jurisdiction of that State over the fisheries. The American commissioners have no desire to impair or invade the powers which the State of Washington exercises over the fisheries; they realize that any proposed remedial action, to be effective, should receive the official support of the State and the general approval of the local public opinion.

As regards any particular remedial action that may be proposed, it must be conceded that it is impossible to state with certainty what the full results may be or when they may be achieved because the experience is lacking on which reasonably safe predictions can be based. Therefore, taking cognizance of the best information available, it will be necessary to adopt a tentative course, in the expectation that, after proper trial, new measures or modifications may be required. In fact, in view of the rapidly changing conditions under which the salmon fisheries are now conducted, it would be strange if modifications in laws and regulations were not demanded at comparatively short intervals. Hence, action so drastic as to cause a virtual suspension of the industry would not, in the opinion of the commissioners, be justified at this time.

The honorable commissioner of fisheries for British Columbia has recommended that the two Federal Governments take over the fishery and compensate any who might be found entitled to such owing to this action, so that the Governments might be free to regulate the fisheries without interference and operate them in the interests of the two countries. This course has much to commend it, but your commissioners feel that at this time, and under existing conditions, it is not feasible. Furthermore, in the case of the United States, there is no way known to the commissioners by which the Federal Government can acquire by purchase or otherwise fishery rights that are vested in the several States, unless such rights are voluntarily relinquished by the States.

Some of the specialists on the natural history of the solmons recommended that all sockeye fishing be stopped for a term of years, but in the light of the facts (1) that they regard one cycle, or four years, as the minimum of closure and that two, three, or more cycles would likely be found necessary; (2) that as this course would force the closing of many canneries and render them worthless (the evidence shows that the machinery of a cannery will become scrap in five years if unused); (3) that as it would be impossible to stop all fishing during a sufficiently long period to cover the sockeye run without interfering with the spring salmon fishery each year and with the pink salmon fishery at least every second year; and (4) that as the fact that the "off years" were not built up to anything like "big year" proportions during the long period known to have elapsed since the "off years" have existed and before commercial fishing began, thus leaving little ground for hope for speedy results from this course alone, your commissioners are not prepared to indorse this recommendation, at least until the trial of other methods has failed to yield reasonably effective results.

The stopping of all salmon fishing long enough to allow an escape-ment of 50 per cent of the sockeye run in both the State of Washington and British Columbia was favored by most of those engaged

in the industry on both sides of the line as a basis for international action, though it developed that there is considerable difference of opinion as to how this can best be done. It was suggested in the State of Washington that a closure of all fishing from July 20 to 31 on the United States side, and from July 25 to August 5 in British Columbia, so as to allow for the time that presumably would be taken by the salmon in passing from the strait to the Fraser River, would achieve the end in view; but this proposition was vigorously opposed in British Columbia on the ground that the difference in dates is too long and that it is doubtful if any such sliding scale would be justifiable, in view of the lack of positive knowledge regarding the movements and rate of travel of salmon.

Very material progress in the study of the life history of the sockeye has been made in recent years, but there is yet a great deal to learn. This can only be done by comprehensive and sustained study on the spawning grounds as well as otherwise.

Salmon hatcheries have been in operation for years and have turned out tens of millions of active, healthy fry annually, but neither in Canada nor the United States can sufficient results be pointed to so far as the runs of sockeye are concerned. This is not the case with all species. Hatchery work, supported by reasonably provident regulations, must, for instance, be given the credit for restoring the chinook salmon fishery of the Columbia River, but the chinook or spring salmon is a different species with different habits of both adults and young. The young of the chinook salmon can readily be held at the hatcheries until they are several months' old and have reached a size when they are strong, active, and fairly capable of protecting themselves against natural enemies. So far, however, efforts that have been made at the Fraser River hatcheries to similarly retain young sockeye have not been successful, but information as to why this should be so and how it can be overcome is lacking.

New methods of hatching by the ingenious use of gravel in a manner that largely reproduces the conditions on the natural spawning grounds are being tried with considerable promise of success by the officer in charge of the Canadian Government hatchery at Harrison Lake on the lower Fraser, and it is possible that through these and other such experiments the present methods of sockeye hatchery operations may be revolutionized or at least vastly improved.

The fact that in all the "big years" of the past the spawning areas of the Fraser system, above as well as below Hell's Gate, were abundantly seeded, while in the "off years" the upper areas were very lightly seeded, though normal seeding took place in the lower areas, indicates the necessity through hatchery or other methods of restoring the runs to the upper waters if this fishery is to be rehabilitated.

Further direct aid to the fisheries may be afforded by the systematic reduction in the numbers of predatory fishes that frequent the spawning grounds. There seems little room for doubt, in the light of the evidence before the commissioners, that the destruction of the eggs and young of salmon on the natural spawning grounds chiefly by other fishes is appalling. The mutilation and destruction by seals and sea lions of mature salmon on their way to the Fraser River is likewise large and serious, and its mitigation would have a highly beneficial effect on the supply, especially at this critical stage of the industry.

The foregoing considerations serve to emphasize the urgent need for comprehensive and continuous observation and study by experts, and indicate that in the meantime any action which would put the fisherman and canners entirely out of business would not be justified.

In the light of all the existing conditions, your commissioners are of the opinion that a treaty or convention for the proper regulation and protection of this fishery should forthwith be entered into by the two countries; that commissioners should be appointed, under this treaty, to thoroughly study the situation, and that they should have to assist them two experts, one appointed by the Government of each country, who should conduct continuous investigations into the life history of the sockeye, hatchery methods, eradication of natural enemies on the spawning grounds and in salt water, and other related subjects; and also that the sockeye hatchery operations on the Fraser should be inspected by the commissioners so appointed.

Your commissioners also recommend that the commission to be appointed cause an examination by competent engineers to be made of the sides of the Fraser River, at Hell's Gate and at other places where slides into the river that might bar the ascent of salmon are probable, such examination being for the purpose of ascertaining what may be feasible to avert such danger.

It is the judgment of your commissioners that the hatchery work on the Fraser River system should be extended, as rapidly as available supplies of eggs will warrant, by the establishing of new hatcheries on spawning areas now being sparsely seeded, and that to this end eggs of sockeye and possibly other species of salmon be made available from waters of the United States, as well as from other Canadian waters, for the Fraser River hatcheries to as large an extent as practicable.

It is also important that the two Governments arrange to ascertain accurately how long it takes sockeye salmon from the time they enter Juan de Fuca Strait to reach and enter the Fraser River and, as far as possible, to pass from point to point along the said strait and the Gulf of Georgia.

And also that the two Governments arrange to carry on investigations and experiments with a view to finding some feasible means of overcoming the seal and sea lion menace to the salmon fisheries in the treaty waters, and if such means be found to put them into operation.

Your commissioners append a draft of a proposed treaty (Appendix A) and of regulations thereunder for the restoration and protection of this fishery (Appendix B), the adoption of which, subject to such modifications in terms as the responsible officers of the two Governments may consider desirable, is urgently recommended.

These regulations will enable the industry to be conducted on a diminished scale for the next eight years. They will afford a much greater escapement of fish to the spawning grounds than has been the case heretofore, and they will enable observation as to the results, which will begin to show themselves in 1923 if, as contemplated, the regulations become effective in 1919. With the information that will then be before them, the commissioners will be in a position to know

whether further restrictions are needed or what modifications in the regulations are desirable.

In connection with these regulations it may be useful to make the following notes in regard to those that are exceptional in their character.

Section 5 will have the effect of stopping all fishing by Indians above the tidal boundary for commercial fishing. From time immemorial it has been the practice of certain tribes of Indians to provide their winter supply of fish for themselves and their dogs by catching salmon by spearing and otherwise as they were passing through difficult channels in the upper reaches of the river, and even on the spawning grounds themselves. The number of fish so taken has, in the aggregate, been very large, and it was stated in the hearings that the number of salmon eggs consumed by the Indians annually would offset the operations of several hatcheries. Having regard for the value of each fish that succeeds in escaping all the appliances of the commercial fishermen and reaching the spawning areas and its importance in maintaining the volume of future runs, this Indian fishing is far from an economical method of supplying their food requirements. There exists prejudice on the part of the Indians to using fish prepared otherwise than in the manner followed by them, but keeping in view the welfare of the salmon fisheries this prejudice should be overcome or should be considered of secondary importance.

Every reasonable facility and encouragement should be given the Indians to catch necessary supplies of salmon for their family uses in the tidal waters and to transport them to their homes, but should it be found necessary for the proper authorities to furnish them with certain quantities, either in a canned or cured form, it seems reasonable that the canning and fresh-fish interests on both sides of the boundary should cooperate in providing such food.

The annual close season provided for by section 6 is designed to give the sockeye a free run to their spawning grounds during a portion of the time when the run is heavy. This protection is additional to that afforded by the present weekly close season, and it is anticipated that approximately a number of fish equal to 50 per cent of the usual pack will thus escape to the spawning grounds.

In the absence of final information as to the speed at which sockeye travel, after entering Juan de Fuca Strait and until they reach the Fraser, your commissioners do not feel justified in recommending any difference in the time of beginning and ending of this close period in either country. As will be noted in the recommendations forming part of this report, your commissioners urge, however, that the two Governments take the necessary steps to procure this information. A beginning of this work has been made during the present year (1918). It may be found that if any difference is desirable, it should be provided not only so far as United States and Canadian waters are concerned, but as between different fishing regions in each country. The blanket method is obviously much more desirable from an administrative standpoint, and the fact that the fish are distributed over a large area while active fishing is going on, so that if all nets are lifted at one time fish that are in the river at that time will escape above the fishing limits may render it uncertain

whether in the long run there is any real advantage in a progressive close season.

It was urged by several witnesses that this annual close time should be established in lieu of the weekly close time. It is certain, however, that the good effects of the proposed annual close time would be practically nullified if this were done. Both the proposed annual and weekly close times together can not be relied upon to permit the escapement of more than 50 per cent of the fish. This is clearly shown by figures for a series of years furnished for the purpose by the associations acting in behalf of the fishery interests on both sides of the boundary. These figures for British Columbia are complete; for Puget Sound they cover the catch handled by only a portion of the canneries, but are offered by the Washington Fisheries Association as being typical of the entire catch. Assuming that this is correct, the percentage of the total catch taken during the period from July 20 to 31, inclusive, on the two sides was as follows for each of the years indicated:

	Per cent.
1914-----	28.44
1915-----	16.31
1916-----	36.99
1917-----	40.10

The total quantity packed during these 12 days in the four years named would be 32.5 per cent of the total pack for these years.

The weekly close time provided by the proposed regulations, namely, 36 hours, is 21.4 per cent of each week. Assuming that during these four years there had been no weekly close time, the catch during these 36 hours per week would have added 18.5 per cent to the pack. Combining this figure with the 32.5 per cent for the 12-day periods would give an escapement of 51 per cent of the packs during both the annual and weekly close times. It is not claimed that these figures represent exact conditions, as there are various unknown factors, but they are a fair deduction from the figures submitted.

There can be no question that the toll taken in the past "off years" has been far too great to maintain the runs, even at their present proportions, and that a much larger escapement of fish to the spawning areas must be assured if the annually declining runs are to be turned into annually increasing runs.

Fishing is now permitted in the Fraser River up to Mission Bridge, about 50 miles from its mouth, although fishing from New Westminster Bridge, 12 miles above its mouth, to Mission Bridge is limited to residents along that portion of the river. The evidence shows that the fishermen in this area make practically their whole catches in the first two or three days following the weekly close time, or, in other words, when the mass of nets below the bridge gets into full operation too few fish escape beyond it to make the fishing above worth while.

On the other hand, the fishermen above the bridge are bona fide residents, who settled there with a view to the fishing, on which they depend to an important degree to enable them to become established on the land. In the circumstances your commissioners feel that it would be unfair to deprive these people of all fishing privileges, but it is evident that the fish must have more protection. It is therefore



recommended that the weekly close time above the bridge be 24 hours longer than below it and that other restrictions be thrown around the exercise of the fishing privileges in this region.

The proposed method in section 7 of arranging the traps during the close time is that required in the Columbia River. The opinion is fairly general that, with jiggers attached to the traps, the mere closing of the entrance for a short time does not assure that salmon will escape, which is the sole object in view, but rather that they will play between the leader and the jigger until the trap is again opened. By opening a portion of the lead in addition to closing the trap the fish will be given a much better chance to move onward.

Sections 9 and 10 relate to purse seines. At the present time purse seines may be operated right up to the entrance to a trap. The purse seiners urge that as the trap is in fishing order during the whole fishing season, both night and day, excepting when it is being lifted, and that purse seines can be used only in the day and when evidence of fish are visible, the existing provision of law is fair and should be continued.

Your commissioners do not so regard the matter. The trap is a stationary appliance, and so can only take the fish that come to it, whereas the purse seiner can follow a school of fish in all portions of the area where fishing is permitted. In the circumstances, to require purse seiners to refrain from casting their nets within 2,400 feet of a stationary fishing appliance is not a hardship.

The use of purse seines in the narrow channels among the islands in Washington Sound and the Gulf of Georgia should not be permitted. Such seines can be so used in these passages as to practically block them and so prevent a reasonable escapement of the run of fish. Their use might as fairly be permitted in the Fraser River itself. The purse seine is an extremely capable fishing device and from its very nature should be restricted to the open waters.

The other proposed regulations involve no new principles and therefore need no special comment.

In closing consideration of this matter, your commissioners again emphasize the vast importance of this fishery to both countries. Every year's delay means added depletion that will require several years longer of sharp restriction to undo, while, on the other hand, immediate action will assure much more speedy recuperation, as there will be a larger body of fish to work with, and thus hasten the return of the day when the river system will be producing over 2,300,000 cases of sockeye, not only one year in four but every year, instead of about one-fifth of that quantity, which, under existing conditions, must rapidly grow less and less.

Your commissioners gratefully acknowledge the generous and capable assistance afforded by the local fishery authorities, interests, and associations, and especially by Commander Miller Freeman, publisher of the Pacific Fisherman; Mr. Frank Warren, president of the Association of Pacific Fisheries; Mr. L. H. Darwin, commissioner of fisheries for Washington; Lieut. Col. F. H. Cunningham, chief inspector of fisheries in British Columbia for the Federal Government of Canada; Mr. John P. Babcock, assistant to the provincial commissioner of fisheries; and Dr. A. McLean Fraser, the representative of the Canadian biological board in British Columbia. These

gentlemen voluntarily served with the subcommittee of your commissioners in considering a proper system of regulations for this fishery, and so greatly facilitated the inquiries and findings of your commissioners.

#### PROTECTION OF THE PACIFIC HALIBUT FISHERY.

There exist off the coasts of Alaska, British Columbia, and Washington the most productive halibut grounds the world has known, but in recent years there has been much overfishing, many of the grounds have become depleted, and the general supply of halibut is threatened with commercial exhaustion. As most of the halibut are taken on the high seas the situation can only be effectively dealt with by concerted international action. This fishery has not been participated in by any other countries than the United States and Canada, and, in view of the great distance of the Asiatic coasts, there seems no reason to anticipate that the fishery will be prosecuted from the ports of that coast, so that an arrangement between the United States and Canada is all that is now needed.

Owing to the excellent shipping qualities of halibut which enable it to be placed on far distant markets in a fresh condition the demand for this fish grew rapidly, and the production kept up with the demand.

At first sufficient halibut to meet requirements were taken from the banks off Cape Flattery, but as the demand increased new areas of production had to be sought. Hecate Strait was early visited, and later banks off the west coast of Vancouver Island were located. The Hecate Strait banks were of extraordinary productivity, and the halibut taken there are of the best quality.

The evidence shows that in the early years the larger vessels could catch a full fare of 300,000 pounds in two or three days of good weather. Fish of undesired sizes were not retained, or at best not more than a limited percentage of them would be accepted by the dealers, and all fish other than halibut that were taken were thrown away as caught. As these would not survive they were a dead loss.

As the halibut is a slow-growing fish, investigations indicating that even at 12 years of age only 50 per cent have reached maturity, the nearer grounds could not long stand this intensive fishing, but the ever-growing demand with the rise of prices was a sufficient inducement for greater and greater efforts in producing the fish. The older banks were combed over and over, new ones were being continuously sought for, and the fishery moved farther and farther northward as the older banks became depleted.

In 1913 or 1914 it was learned that in autumn large numbers of halibut resort to the Yakutat Banks, off Alaska. A large winter fishery immediately developed there, and now fishing has been extended to Kodiak Island, and even farther westward, so that vessels from the more southern ports visiting these banks have to sail 1,800 or 2,000 miles before they wet a line. Obviously it is only because there is no large halibut fishery on the Atlantic coast and that no other fish up to the present fills the place of the halibut that this fishery is maintained.

The opening of Prince Rupert as a transcontinental railway terminus in 1915 increased the activity of the fishery, as that port is

some 600 miles nearer the main fishing grounds than Vancouver and Seattle; also a company equipped with a large cold-storage plant to enable it to engage in this fishery was located there. The opening of this port furthermore made this fishery feasible for a very considerable fleet of small two and three dory vessels that can operate within a radius of approximately 300 miles.

Excepting on the far northwestern banks, the depletion is everywhere apparent and most serious. As would be expected, the weight of fishing fell on the large mature fish. Consequently the proportion of mature fish that is left on the more southern banks is so alarmingly small as to render the future of the fishery thereon precarious. Fishing on these banks still goes on, but mainly by the smaller vessels that can operate more cheaply, and unless the necessary steps are taken without delay to properly protect the halibut, not only will the more distant banks fall into the exhausted condition of the nearer ones, but these nearer ones will be depleted to the extent of commercial exhaustion. If, on the other hand, effective measures are now put into operation, the more southern banks can probably be restored in time and the distant ones can be maintained at their maximum productivity, so that a large annual yield therefrom can be assured. One of the important witnesses before the conference expressed his well-considered opinion that these distant banks must be depended upon in future to supply 75 per cent of the halibut production.

Remarkably little investigation into the natural history of the halibut has been made in any part of the world. By far the most complete studies are those conducted by Prof. W. F. Thompson, who for several seasons was employed for such purpose by the provincial department of fisheries in British Columbia. His investigations indicate that the halibut of the various banks are of different races and do not comingle, so that there are no common spawning areas, and each bank has its own problems. He found that all the fish do not spawn at or even near the same time, but that the spawning season is embraced within the period between the middle of December and the last of April or the middle of May. The evidence given before your commissioners by the practical fishermen and others engaged in the industry all tends to show that the main spawning period lies between the 15th of December and the 15th of February.

With remarkable unanimity all those engaging in the industry—the small boat and independent vessel fishermen, as well as the companies owning numbers of vessels—strongly urged that all halibut fishing should be stopped during three winter months, the majority favoring the period from the 15th of November to the 15th of February, so as to protect the spawning fish. Indeed, there was but one important exception to this recommendation, and that witness admitted that during the past season his company did not operate any of its own vessels during that period, but depended for its supplies on the purchase of the catches of independent fishermen.

While it would seem possible, in view of the fact that the halibut carry their eggs for months before they are extruded, to undo any good effects of a close season during the suggested period by fishing operations, additional to those now carried on, during the remainder

of the year, it was generally contended that this would not be commercially practicable.

Apart altogether from the standpoint of conservation of the halibut, exceedingly strong reasons were placed in evidence for prohibiting halibut fishing during this time, viz:

1. The weather conditions are then at their worst, and all, or nearly all, of the serious loss of life and vessels in this fishery has occurred during this time.

2. It is during this period that practically all the loss of fishing gear takes place, and such loss is then enormous. It is claimed that 50 per cent of the gear of every vessel is lost or has to be cut away during this time. When it is stated that the larger vessels "set" what is equal to 48 miles of line per day, and that hooks are fastened to these lines at intervals of about 10 feet, what this loss of gear means in the aggregate will be realized.

3. Apart from the monetary loss involved in the destruction of gear, which in itself is exceedingly heavy, this midwinter fishery tends to drive the fish from the grounds. As the fish bite with avidity during the spawning season, it is reasonable to assume that when this gear is left in the water fish will become impaled on most of the hooks and will eventually die and decompose.

4. The evidence shows that 15 per cent of the annual catch is made during these three months, but in addition thereto it is estimated that 10 per cent of the total catch is taken and destroyed on this lost gear.

5. The fish caught at this time are in a very inferior condition from a food standpoint and should not be marketed. They are thin, their flesh is flabby, and they are known to the trade as "slabs."

6. Three months in the year are needed to properly overhaul and prepare the vessels, so that these three months would be used to advantage.

It seems obvious in the light of the foregoing that the only reason that fishing is carried on during these months is owing to competition. The practice in the business is to freeze and store for use during the winter, when production is not equal to the demand, the quantities that can be taken during the remainder of the year that are in excess of the immediate market requirements, but as at the present time frozen fish can not be sold in competition with fresh fish, the firm having fresh fish at all times has a trade advantage in the markets over one that has not. If all were on the same footing in this respect, all or almost all would favor no fishing being permitted during this period.

Prof. Thompson, in his informative and capable reports, favors the method of dividing the ocean into zones and closing these zones alternately, or as may be found desirable, for a term of years to all halibut fishing. This method is opposed by all the fishing interests, and for the following reasons your commissioners do not regard it as feasible:

1. It would make it impossible for the small boats which can not conveniently operate beyond a radius of 150 to 200 miles, or 300 miles at the outside, to remain in the business when the areas in the vicinity of their home ports were closed, whereas, in the opinion of your commissioners, the greatest promise for development of the

fisheries on the Pacific coast of both countries lies in the growth of this small-boat fishery operating out of local ports.

2. Fishing would be so centralized and concentrated on the open areas that the good effects of the close-time would be more than offset.

3. The end in view would not be achieved unless all fishing were prevented in a closed area, and this would very seriously retard the development of fishing for other species of fish, many of which are now coming into favor and are capable of supporting an important industry.

4. The temptation to fish in closed areas would be very great, and an extensive and expensive patrol would be needed to prevent it.

The situation is much more difficult to deal with effectively than it would have been a few years ago, because recently an extensive demand has been built up for the different kinds of so-called "cods," skate, grayfish, etc., which are taken incidentally when fishing for halibut; furthermore, such a large demand has been created for the various species of flounders that abound on the Pacific coast that steam trawling for them is now being engaged in as a regular industry, and limited quantities of halibut are taken by such trawlers.

As previously explained, in former years all the fish other than halibut were thrown away as caught, as there was no market therefor. In this way millions of pounds of excellent food fish, among them the same kind of cod that is the mainstay of the Atlantic fisheries, were each year destroyed and wasted. This waste still goes on to far too great extent, owing to the limited local demand and sale for these excellent food fish.

It is of the utmost importance to both countries that the demand for these fish should become general, as it will when their excellence is generally known. Owing to the fact that they can be produced in large quantities they can be sold at less than one-half the price of halibut. It is, therefore, imperative that no action should be taken which would retard the development of these fisheries.

While these other fisheries make more difficult the adequate protection of the halibut fishery, they may possibly be the saving factor in the halibut situation by replacing in a large measure the demand for halibut and thus reducing the incentive to the overexploitation of that fishery.

As all these lesser known but excellent food fish can be best placed on distant markets in a frozen condition, it is doubtful whether the stopping of fishing therefor during the period between the 15th of November and the 15th of February, as was generally recommended by those appearing before your commissioners, would be harmful to the industry, as at the present time sufficient quantities can be readily taken during the remaining portions of the year to more than meet all requirements; but as the demand is growing rapidly this condition may not long continue, and it is not considered wise to adopt any measures that might prove detrimental to it. Moreover, it is undesirable that there should be any interference with the development of small-boat fishing that is being carried on to some extent to supply the fresh fish demands in the coastal centers of population.

If such minor fishing is allowed to go on, there is no doubt that while what are regarded as special halibut grounds may not be resorted to, small quantities of halibut will necessarily be caught, as the gear that is used to catch cod, etc., as well as the steam trawlers, will

take halibut also. Experience shows that approximately 6 per cent of the catches of the steam trawlers so far operating for flounders consists of halibut. However, if the sale of such halibut outside of the local coastwise markets were forbidden during the close time for halibut fishing it would serve to prevent halibut fishing, as such, under the cloak of fishing for other species, because fishing for halibut on the remote banks during this period costs so much that it would not pay if the fish had to be sold at the rates obtainable for frozen halibut.

It is true that the evidence indicates that on some of the remote northwestern banks halibut are now found during fall and winter only, so that the adoption of a close season between the 15th of November and the 15th of February would mean that these fish would not be caught to any great extent. But with the depleted state of the halibut fishery as a whole it is not objectionable that the resources of some of the producing areas should be largely withheld from exploitation for the present and until the effects of international protective action can be measured.

In the light of all these conditions your commissioners recommend that there shall be a close time on halibut fishing on the Pacific coasts of the United States and Canada from the 16th day of November in each year to the 15th day of February following, both days inclusive, for a period of 10 years beginning in November, 1919, during which close time it shall be unlawful to fish for, land, discharge, kill, ship, receive for shipment, or offer for sale at any port or place in the United States or Canada any halibut caught in violation of this restriction; provided, however, that halibut taken incidentally in fishing for other species of fish during the said close period may be sold fresh for local consumption only or may be frozen at the port where landed, but no halibut other than in a frozen condition may be shipped until after the close season for the year then current shall have expired. Proper penalties for violation of these requirements should be provided by the two countries.

Your commissioners also recommend that joint investigation into the halibut, as contemplated by the resolution which forms Exhibit P to the hearings attached, should be ordered and provision should be made for the reopening of the matter of regulation after a period of four years if investigation warrants and demands such action.

The commissioners that may be appointed under the suggested treaty for the protection of the sockeye salmon fishery of the Fraser River system might properly be charged with the supervision of the proposed halibut close season and investigations and be required to report to the two Governments the effects of such close season.

Your commissioners are impressed with the undesirability of making any regulations that would not be subject to modification within a reasonable time, as the conditions surrounding this fishery are liable to change rapidly.

#### FISHING BY UNITED STATES LOBSTER WELLS OFF CANADIAN COAST.

When at an early meeting of the conference the Canadian section explained the unfair position in which the Canadian lobster fishermen on certain parts of the Nova Scotia coast were being placed by

United States lobster well-smacks fishing just outside the territorial waters during the close time for lobster fishing inside such waters and using the local harbors as a base for this fishery by resorting thereto each night under the cloak of coming in for shelter, which seems a clear breach of the spirit or intention of the treaty of 1818, the unfairness of the position was admitted by the United States section, and forthwith the Secretary of Commerce ordered that there be prepared for submission to Congress a bill designed to prevent such fishing.

This prompt action was indorsed at the hearings at Boston by all the people who had been engaged in the industry, all of whom said they would not put any vessels in this fishery.

Thus, even before congressional action could be completed, the end in view has been achieved, and there has been settled a question, which, though affecting up to the present only a limited portion of the coast of Nova Scotia, was causing such growing unrest among the lobster fishermen there as to threaten the total breakdown of the protective regulations designed for the conservation of the fishery, both inside and outside territorial waters.

#### PROTECTION OF THE FISHERIES OF LAKE CHAMPLAIN.

At the Boston hearings representatives from the States of New York and Vermont appeared to urge better protection of the fisheries in Missisquoi Bay, the Canadian portion of Lake Champlain. This matter had received preliminary consideration by the conference during its sittings in Washington, D. C.

It was explained that for some years past these two States, with the cooperation and assistance of the Federal Government, were endeavoring to make Lake Champlain a favorite tourist resort, as, owing to its character, it could not support any extensive commercial fishing. To this end both States were prohibiting all net fishing, but the most important spawning grounds for pike-perch, the most valuable fish in the lake, are in the portion thereof that is in Canadian territory, and there each spring, when the fish crowd into these waters to spawn, they are caught with seines. Thus the good effects of the work of the two States were being largely nullified.

It was also explained that the United States Bureau of Fisheries operates a pike-perch hatchery on the lake and that it was prepared to enlarge the hatchery and increase its work if the net fishing were stopped.

While this matter was not explicitly referred to the conference for consideration, it was one of which it could take cognizance. It was, therefore, left with the Canadian delegation for such action as they felt justified in taking.

Following the return of the Canadian section to Ottawa, after hearings at St. John, it laid the facts before the Canadian Government, and recommended that all net fishing in Missisquoi Bay should be stopped. This recommendation was approved, and the fishery regulations for the Province of Quebec were amended accordingly by Order in Council of February 18, 1918.

• REQUIREMENTS IMPOSED ON CANADIAN FISHING VESSELS PASSING THROUGH TERRITORIAL WATERS OF ALASKA.

The Canadian section of the conference brought up for consideration the difference in treatment accorded to Canadian fishing vessels by the United States authorities on the Pacific and Atlantic coasts.

On the Pacific coast, the United States fishing vessels leaving Washington ports for the northern fishing grounds of Alaska sail through the narrow territorial channels along the coast of British Columbia, between the islands and the mainland, so as to escape the rougher outside waters, and are required neither to enter nor report at any Canadian customs office, while Canadian fishing vessels passing through similar channels along the coast of Alaska to the fishing grounds on the high seas beyond have been required to enter and clear at Ketchikan, thus not only losing time but involving the payment of fees, which usually amount to from \$12 to \$15 on the larger vessels, on each occasion.

On the other hand, on the Atlantic coast, Canadian fishing vessels were not permitted to come from the fishing grounds to United States ports, nor were they given clearances from such ports to the high seas, but had to clear for a port in a foreign country.

This matter was investigated during the hearings on the Pacific coast, and was found to be substantially as above stated, for while the vessels were not cleared from Ketchikan for the fishing grounds, they were cleared for a Canadian port by way of the fishing grounds, and thus went from Ketchikan to the fishing grounds and thence back to a Canadian port.

The law under which entry and clearance was required was an enactment to prevent smuggling, and as there was some question as to whether a proper interpretation was being placed upon it, in requiring passing fishing vessels to enter and clear, the question was forthwith taken up by the Department of Commerce, which, after full consideration, found that the practice which had grown up was not warranted by law. It was forthwith discontinued.

Thus another matter, which has been the cause of complaint and irritation in the Canadian vessel fisheries ever since the beginning of these northern fishing voyages, has been satisfactorily disposed of.

PROTECTION OF THE STURGEON FISHERIES.

The question of the very serious and continuing decline of the sturgeon fisheries, not only in the waters contiguous to the boundary but in nearly all the noncontiguous waters as well, was also considered by your commissioners, and the following resolution on this subject was adopted:

Whereas the sturgeons are individually by far the most valuable fishes inhabiting North America;

Whereas the supply of sturgeons in all waters in which the fishery has been active has been so materially reduced as to presage commercial extinction, which, in fact, has already occurred in certain waters;

Whereas it is evident that the measures heretofore adopted are entirely inadequate to arrest the rapid decline of the fisheries or even maintain the present greatly diminished supply: Therefore be it

*Resolved*, That this conference regards it as necessary that all sturgeon fishing in all the contiguous waters of the United States and Canada be suspended



for a period of at least five years, and that each country should undertake to carry this purpose into effect by appropriate legislation or other official action.

*Resolved further*, That this conference strongly recommends the adoption by appropriate legislative bodies of a similar prohibitory measure for noncontiguous waters.

In this connection, your commissioners wish to commend the adoption of a regulation by the Canadian Government on the 22d of March, 1918, providing for a four years' prohibition of sturgeon fishing in Lake Erie if the bordering States of New York, Pennsylvania, and Ohio enact similar legislation. This conference urges that such action be taken by these States and that provision for a longer period of closure will be speedily adopted, so far as all boundary waters are concerned, as well as waters not contiguous to the boundary in both countries.

#### PROTECTION OF WHALES.

The question of the protection of the diminishing number of whales on the Atlantic and Pacific coasts of both countries received the consideration of the conference. The downward trend of the whole fishery is general, not only on the coasts of the United States and Canada, but in all parts of the world frequented by these mammals, and the modern appliances for hunting whales are so efficient as to threaten not only the commercial exhaustion of the fishery everywhere, but the extinction or practical extinction of the species.

While an arrangement between the United States and Canada for the protection of whales would no doubt be of some advantage, yet, owing to the wide migrations of these animals and to the fact that they could still be pursued without any restrictions on the high seas off the coasts of both countries by vessels from other nations without using territorial waters beyond seeking shelter from storms, it is doubtful if the whaling industry on this continent can be safeguarded in that way.

Your commissioners are therefore of the opinion that following the ending of this war an international conference, consisting of representatives of the different maritime countries interested, should be called to consider world-wide international action to assure the saving of the whales from extinction and the perpetuation of the whaling industry.

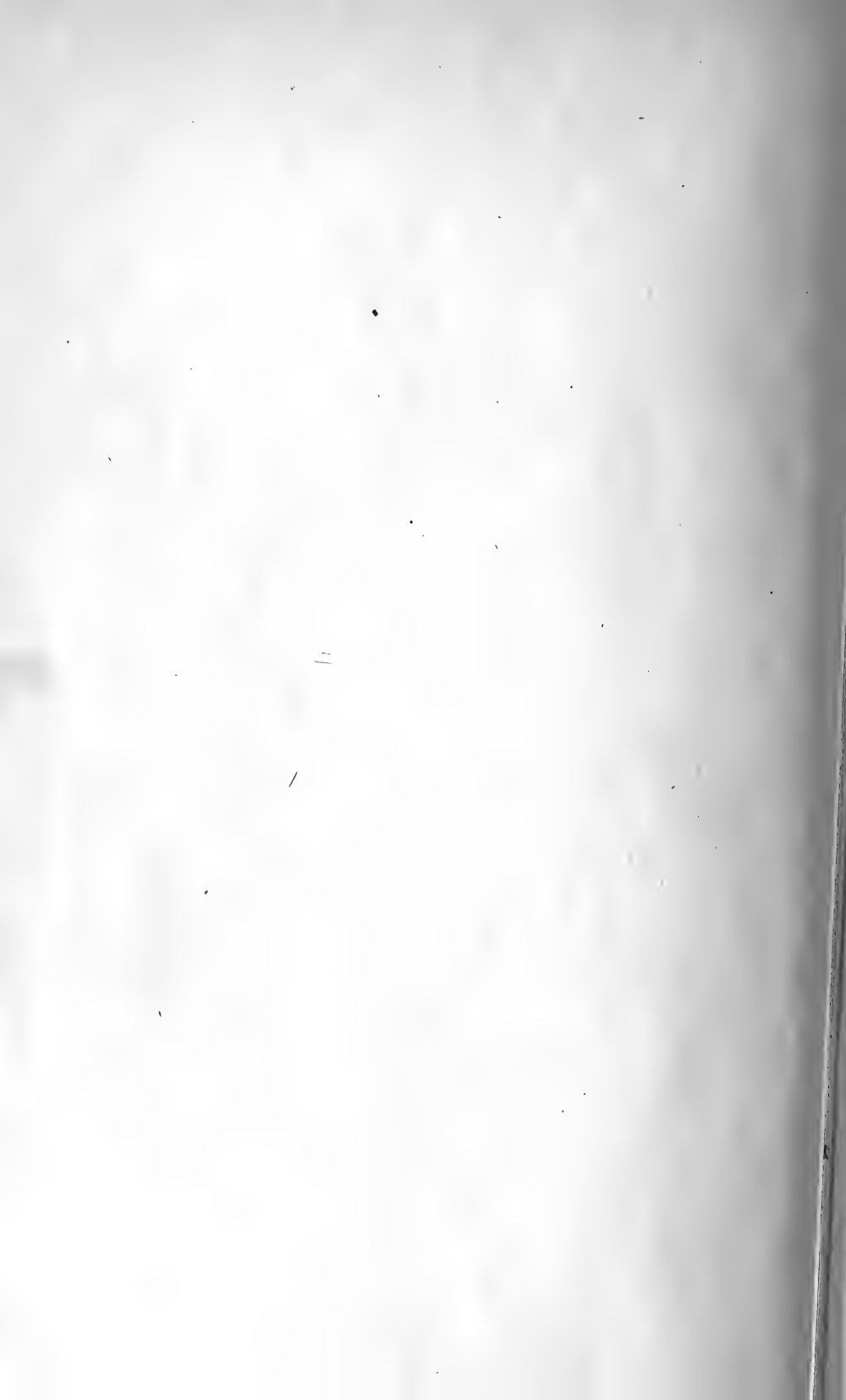
WILLIAM C. REDFIELD,  
EDWIN F. SWEET,  
HUGH M. SMITH,

*Commissioners for the United States:*

J. D. HAZEN,  
G. J. DESBARATS,  
WM. A. FOUND,

*Commissioners for the Dominion of Canada.*

Signed at Lake Champlain, N. Y., Friday, September 6, 1918.



## APPENDIX A.

### TREATY BETWEEN GREAT BRITAIN AND THE UNITED STATES CONCERNING THE SOCKEYE SALMON FISHERIES OF THE FRASER RIVER SYSTEM.

Whereas the Governments of Canada and the United States, realizing the necessity for joint action in the protection, preservation, and propagation of the sockeye salmon of the Fraser River system, referred the question to an International Joint Commission appointed by the respective Governments in December, 1917, to consider a settlement of outstanding questions affecting the fisheries between the two countries; and

Whereas the said commission, having investigated the matter, recommend the adoption and enforcement by the two countries of the regulations appended hereto and the appointment of an International Fisheries Commission to conduct investigations into the life history of the salmon, hatchery methods, spawning-ground conditions, and related matters, and to observe the effects thereof and to recommend any modifications thereof or additions thereto which may in the light of experience be found desirable;

His Majesty George V, of the United Kingdom of Great Britain and Ireland and the British Dominions beyond the Seas, King and Emperor of India, and the President of the United States of America, having resolved to enter into a treaty thereto, have for that purpose appointed

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who, having exchanged their full powers, found to be in due form, have agreed to and signed the following articles:

#### ARTICLE 1.

The times, seasons, and methods of sockeye-salmon fishing in the Fraser River system, as specified in article 3 of this convention, and the nets, engines, gear, apparatus, and appliances which may be used therein shall be limited to those specified in the system of regulations appended hereto.

#### ARTICLE 2.

The two Governments engage to put into operation and enforce by legislative and executive action, with as little delay as possible, the said regulations, restrictions, and provisions, and such others as may from time to time be adopted by the two Governments; and the date when they shall be put into operation shall be fixed by concurrent proclamations of the Governor General of the Dominion of Canada in Council and of the President of the United States.

#### ARTICLE 3.

It is agreed that the aforementioned regulations will apply to the waters included within the following boundaries:

Beginning at Carmanagh Lighthouse on the southwest coast of Vancouver Island; thence in a straight line to a point 3 marine miles due west astronomic from Tatoosh Lighthouse, Wash.; thence to said Tatoosh Lighthouse; thence to the nearest point of Cape Flattery; thence following the southerly shore of Juan de Fuca Strait to Point Wilson, on Quimper Peninsula; thence in a straight line to Point Partridge, on Whidbey Island; thence following the western shore of the said Whidbey Island to the entrance to Deception Pass; thence across said entrance to the southern side of Reservation Bay, on Fidalgo Island; thence following the western and northern shore line of the said Fidalgo Island to Swinomish Slough, crossing the said Swinomish Slough in line with the track of the Great Northern Railway; thence northerly following the shore line of the mainland to Point Grey at the southern entrance to Burrard Inlet, British Columbia; thence in a straight line to the southern end of

Gabriola Island; thence to the southern side of the entrance to Boat Harbor, Vancouver Island; thence following the eastern and southern shores of the said Vancouver Island to the starting point at Carmanagh Lighthouse, as shown on the United States Coast and Geodetic Survey Chart No. 6300, as corrected to July 20, 1918, and also the Fraser River and its tributaries.

The two Governments engage to have prepared, as soon as practicable, charts of the waters described in this article, with the international boundary line indicated thereon; and to establish such additional buoys and marks for the purposes of this treaty as may be recommended by the commission referred to in the following article.

#### ARTICLE 4.

The High Contracting Parties agree to appoint a commission, to be known as the International Fisheries Commission, consisting of four persons, two to be named by each Government, to conduct investigations into the life history of the salmon, hatchery methods, spawning-ground conditions, and other related matters, and to observe the effects of the said regulations and to recommend to their respective Governments any modifications of or additions to the aforementioned regulations which may in the light of experience be found desirable.

#### ARTICLE 5.

The International Fisheries Commission shall continue in existence so long as this convention shall be in force, and each Government shall have the power to fill, and shall fill from time to time, any vacancy which may occur in its representation on the commission. Each Government shall pay its own commissioners, and any joint expenses shall be paid by the two Governments in equal moieties.

#### ARTICLE 6.

This convention shall remain in force for a period of 15 years, and thereafter until two years from the date when either the Government of Great Britain or the Government of the United States shall give notice to the other of its desire to terminate it.

#### ARTICLE 7.

The regulations, restrictions, and provisions provided for in this convention shall remain in force for a period of eight years from the date of their executive promulgation, and thereafter until one year from the date when either the Government of Great Britain or of the United States shall give notice to the other of its desire for their revision, and immediately upon such notice being given the commission shall proceed to make a revision thereof, which revised regulations, if adopted and promulgated, as provided by article 2 hereof, shall remain in force for a period of five years, and thereafter until one year from the date when a further notice of revision is given, as above provided in this article. It shall, however, be in the power of the two Governments, by joint or concurrent action upon the recommendation of the commission to make modifications at any time in the regulations, and to bring any or all of the other species of salmon, including steelhead, within the scope of such modified regulations.

#### ARTICLE 8.

The present convention shall be duly ratified by His Britannic Majesty and by the President of the United States, by and with the advice and consent of the Senate thereof, and the ratifications shall be exchanged as soon as practicable.

In faith whereof, the respective plenipotentiaries have signed the present convention in duplicate, and have thereunto affixed their seals.

Done at \_\_\_\_\_ in the year of our Lord one thousand nine hundred and eighteen.

## APPENDIX B.

### A SYSTEM OF INTERNATIONAL REGULATIONS FOR THE PROTECTION AND PRESERVATION OF THE SOCKEYE SALMON FISHERIES OF THE FRASER RIVER SYSTEM.

SECTION 1. The following regulations shall apply to the waters included within the following boundaries:

Beginning at Carmanagh Lighthouse, on the southwest coast of Vancouver Island; thence in a straight line to a point 3 marine miles due west astronomic from Tatoosh Lighthouse, Wash.; thence to said Tatoosh Lighthouse; thence to the nearest point of Cape Flattery; thence following the southerly shore of Juan de Fuca Strait to Point Wilson, on Quimper Peninsula; thence in a straight line to Point Partridge, on Whidbey Island; thence following the western shore of the said Whidbey Island to the entrance to Deception Pass; thence across the said entrance to the southern side of Reservation Bay, on Fidalgo Island; thence following the western and northern shore line of the said Fidalgo Island to Swinomish Slough, crossing the said Swinomish Slough in line with the track of the Great Northern Railway; thence northerly following the shore line of the mainland to Point Grey at the southern entrance to Burrard Inlet, British Columbia; thence in a straight line to the southern end of Gabriola Island; thence to the southern side of the entrance to Boat Harbor, Vancouver Island; thence following the eastern and southern shores of the said Vancouver Island to the starting point at Carmanagh Lighthouse, as shown on the United States Coast and Geodetic Survey Chart No. 6300, as corrected to July 20, 1918, and also the Fraser River and its tributaries.

#### SEC. 2. Interpretations:

"Drift net" shall mean a floating gill net that is neither anchored nor staked, but that floats freely with the tide or current.

"Trap net" shall include a pound net.

"Commission" shall mean the International Fisheries Commission appointed under the treaty to which these regulations are appended.

"Treaty waters" shall mean all waters described in section 1 hereof.

SEC. 3. (a) Fishing for sockeye salmon in the treaty waters within the territorial limits of the State of Washington shall not be permissible except under license from such State, and in the treaty waters of Canada except under license under the provisions of the fisheries act of Canada.

(b) No greater number of licenses for any class of fishing appliance shall be authorized in any year in the treaty waters within the territorial limits of the State of Washington than were issued for such class for the season of 1918, up to August 31, inclusive, thereof, and in the treaty waters of British Columbia the number of gill nets that may be licensed in any year shall not exceed 1,800.

(c) No license shall be granted to any person, company, or firm in the State of Washington, unless such person is an American citizen, resident in the said State, or to such company or firm, unless it is an American company or firm or is authorized to do business in the said State, and no licenses shall be granted to any person, company, or firm in the Province of British Columbia unless such person is a British subject resident in the said Province, or such company or firm unless it is a Canadian company or firm, or is licensed to do business in the said Province of British Columbia.

(d) No one other than a British subject who owns or leases land on either side of the Fraser River above New Westminster Bridge, and who actually permanently resides on and is cultivating such land, shall be eligible for a license to fish for sockeye salmon between New Westminster Bridge and Mission Bridge, but fishing under such license shall not be carried on below New Westminster Bridge.

SEC. 4. The use of nets other than drift nets, purse seines, and trap nets shall not be permitted in treaty waters for the capture of sockeye salmon.

SEC. 5. No net fishing or fishing of any kind, other than with hook and line, excepting for hatchery purposes or scientific purposes, shall be permissible in the Fraser River above the down-river side of Mission Bridge.

SEC. 6. During the years 1919 to 1926, both years, inclusive, no one shall fish for, catch, or kill any salmon from the 20th day of July to the 31st day of July in each year, both days inclusive; and during this close time no nets or appliances of any kind that will capture salmon may be used in these treaty waters: *Provided, however*, That salmon fishing for hatchery or scientific purposes may be authorized during this period.

SEC. 7. The weekly close time for salmon fishing shall be from 6 o'clock a. m. Saturday to 6 o'clock p. m. Sunday, in Canadian waters, excepting in that portion of the Fraser River between New Westminster Bridge and Mission Bridge, where the weekly close time shall be from 6 o'clock a. m. Saturday to 6 o'clock p. m. on the following Monday, and in United States waters from Friday at 4 o'clock p. m. to Sunday at 4 o'clock a. m., and during this close time no salmon fishing of any kind, other than for hatchery or scientific purposes, shall be permissible, and during the full period of each weekly close time or annual close season each trap net shall be closed by an apron placed across the outer entrance to the heart of the trap, which apron shall extend from the surface to the bottom of the water and shall be securely connected to the piles on either side of the heart of the trap net, fastened by rings not more than 2 feet apart on taut wires stretched from the top to the bottom of the piles, and such apron, or the appliance by which it is raised and lowered, shall be provided with a signal or flag, which shall disclose whether the trap net is closed, and which shall be of the form and character approved by the commission: *Provided*, That in addition to the foregoing requirement such trap net shall be equipped with a V-shaped opening to the satisfaction of the commission, in the lead of such trap net next to the entrance to the heart and immediately adjacent to the apron of at least 10 feet in width at the top and extending below the surface at least 4 feet below low water, which V-shaped opening shall remain open and unobstructed during the full period of each weekly close time or annual close season.

For the purpose of securing full compliance with this regulation the owner or operator of each trap net shall constantly maintain during the weekly and annual close times a watchman, whose duty it shall be to cause each trap net to be kept closed and the lead to be kept open, as above provided.

SEC. 8. All salmon trap nets shall be limited to a total length of 2,500 feet, with an end passageway of at least 600 feet between one trap net and the next in linear series, such distances being measured in continuation of the line of direction of the leader of such trap net, but in no instance shall more than two-thirds of the width of any passageway at any point be closed by trap nets. There shall also be a lateral distance of at least 2,400 feet between one trap net and the next.

SEC. 9. A salmon purse seine shall not exceed 1,900 linear feet in length, including the lead and attachment, measured on the cork line when wet.

SEC. 10. (a) No purse seine shall be cast or placed in the water for fishing purposes within 2,400 feet of any trap net.

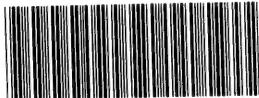
(b) The use of purse seines for the capture of sockeye salmon shall be confined to the treaty waters southward and westward of a straight line drawn from the lighthouse on Trial Island, British Columbia, to the northwest point of Whidbey Island, State of Washington.

SEC. 11. A salmon drift net shall not exceed 900 linear feet in length, and the vertical breadth thereof shall not exceed 60 meshes, and the size of the mesh shall not be less than 5½ inches, extension measure, when in use.

SEC. 12. Any violation of these regulations in the treaty waters within the territorial limits of the State of Washington or within the treaty waters of Canada shall be punishable by the imposition of appropriate penalties to be provided by legislation in each country.



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