NORTH EUROPEAN OVERFISHING CONVENTION OF 1946 COMES INTO FORCE: The Overfishing Convention signed in London in 1946, to prevent depletion of stocks in the North Sea and other areas, was recently ratified by Spain, the last of the twelve signatories to do so, and the Convention therefore comes into force April 5, 1953. The signatories are Belgium, Denmark, the Irish Republic, France, Iceland, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, and the United Kingdom, reports a February 20 U. S. Embassy dispatch from London. Although not a signatory, the German Federal Republic is expected to accede to the Convention, a London press release (Manchester Guardian, February 13) points out.

In a written answer in the House of Commons on February 12, 1953, the British Minister of Agriculture and Fisheries, in announcing that the Convention would come into force on April 5 of this year, stated that by that time it was expected the provisions relating to the retention, landing, and sale of immature fish would have been put into effect, but that most countries would require a longer time to use up stocks of existing nets before the provisions for increasing the minimum size of mesh would come into force. He further stated that the matter would be discussed at the scheduled March 4 conference, as well as the setting up of the Permanent Commission provided by the Convention and which will have the task of considering what further conservation measures are required. The increase of the minimum size of net mesh would also be considered.

The question of the fishing dispute with Iceland was most likely to be aired at the scheduled meeting, since all the disputants in the case (France, Belgium, and the Netherlands have also formally protested the restrictions) are parties to the Convention. However, serious study of the problem will most probably be left to the Permanent Commission.

The press release indicates that "the Convention fixed the size limits below which certain fish should not be retained on board ship, landed, or sold. The United Kingdom has already applied this provision by means of the Sea Fishing Industry (Immature Sea Fish) Order, 1948, and it is expected that all the other signatories will have acted likewise before April 5 if they have not already done so."

"Unrestricted fishing between the two world wars, and the probability that this practice would be resumed, led to the preparation of the Overfishing Convention as a means of preventing the depletion of stocks in the North Sea and other areas."

It is reported that the waters concerned are those parts of the Atlantic and Arctic Oceans lying north of 48° N. latitude and between 42° W. longitude and 32° E. longitude excluding the Baltic.

The news release further states that "the waters covered by the Convention are those of the North Sea, and of the Northern seas away to Greenland, Iceland,
the Faroes, Northern Norway, and Bear Island. The only waters not covered by this Convention in which British deep-sea vessels fish are the Barents Sea and the West Coast of Greenland. The latter is covered by the Northwest Atlantic Fisheries Convention.

"The principal means of conserving supplies will be to fix the minimum permitted size of mesh at 80 mm.—about 3 1/4 in. (the present mesh used in British vessels is 2 3/4 in.). The result will be a considerable saving of the younger fish of three main species—cod, plaice, and haddock. These will be left to grow and should provide catches of a larger average weight than hitherto. It is estimated that if the provisions of the Convention had been in force during the last four years the housewife would now be getting about 15 percent more haddock, between 14 percent and 15 percent more hake, and smaller increases of cod and plaice.

"It may take between 12 and 18 months before all the fishing vessels of all the signatories are equipped with nets of the new minimum standard. The rate of replacement of fishing nets is fairly rapid, and as the need for replacement occurs the new nets will be supplied. The proposed permanent commission will have no executive powers and no international sanctions are proposed for the enforcement of the Convention. Each signatory will be responsible for ensuring that its fishing industry keeps to the new rules."

**FOOD AND AGRICULTURE ORGANIZATION**

**FISHING—BOAT DESIGN AND EQUIPMENT MEETINGS IN PARIS AND MIAMI**: To encourage the exchange of information on latest advances in the design and equipment of fishing boats, the Food and Agriculture Organization of the United Nations will sponsor two meetings—one in Paris, October 12-16 and another in Miami, Florida, November 16-20, 1953.

The new plan of holding the same type of meeting in two places will be tried, FAO said, in an effort to reach the largest possible audience. "Neither experts nor their audience have the time or the money to travel halfway around the world for a single meeting," FAO's Senior Fisheries Technologist pointed out.

FAO has invited all member countries to send official delegates and hopes that commercial firms in all regions will send observers. The Paris meeting was scheduled mainly for Europe, most of Asia and Africa, and the Miami meeting for the American continents and the Pacific.

Designers of fishing boats and manufacturers of equipment are expected to be interested in the meetings. Many of the papers and films to be presented will deal with new and improved craft and equipment of all sorts.

The agenda will be the same at both meetings. Included will be a review of different types of boats from all over the world; discussions of fish handling and processing in factoryships; the shape of boats; construction methods and materials; choice of engines; gear for handling nets; and arrangements for handling the catch on board.

An important contribution to the meetings will be made, FAO believes, by countries often considered less developed in technical fields. For example, FAO pointed out, Chile has much to offer in the mechanization of sailingboats suit-
able for many countries of Latin America and the Far East. Pakistan is the home of fishing craft which FAO experts have described as "probably having the world's best hull shape" and which they believe might teach much to designers in some of the most advanced countries.

The Miami session will also include a joint meeting with the Gulf and Caribbean Fisheries Institute which will hold its annual meeting in Miami at the same time.

NORTHWEST ATLANTIC FISHERIES COMMISSION

THIRD ANNUAL MEETING: The third annual meeting of the Northwest Atlantic Fisheries Commission will be held at Yale University, New Haven, Connecticut, from May 25 to 30, inclusive. The agenda for the plenary meetings includes, among other subjects, the following of general interest:

A report from the Special Committee on Headquarters Site; Report of Special Committee on Commission's Research Program; Report on Haddock Regulations in Subarea 5, including revised Research Program and Proposals for Amendments to Mesh Regulations; and Reports of Panel 1-5 meetings.

Two offers for a site for permanent headquarters were considered at the Second Annual Meeting--Halifax, N. S., and St. John's, Newfoundland. Invitations have since been received from the Municipality of Montreal, and Laval University, Quebec, in Canada. In the United States: University and Municipality of Kingston, Rhode Island; Harvard University, Boston, Mass.; Municipality of Gloucester, Mass.; Durham University, New Hampshire; and Bowdoin College, Brunswick, Maine.

UNITED NATIONS

SEA-WATER POLLUTION CONTROL CONSIDERED DESIRABLE BY SOME NATIONS: International action to reduce the pollution of sea water by oil and other waste materials is considered desirable by a number of governments which have replied to a United Nations inquiry, according to a report prepared for the UN Transport and Communications Commission. Some of the governments reported that pollution has increased in recent years, with resulting damage to fisheries, sea birds, plant life, beaches, and ports. Others indicated that the problem had been controlled by local and national vigilance, a January 19 United Nations Press release reports.

The report (Doc. E/CN.2/134, Nov. 12, 1952) will be considered at the Commission's sixth session which opened on February 2 at the U. N. Headquarters. It summarizes information received in response to an Economic and Social Council resolution of August 1951 inviting governments to send to the UN the results of studies on pollution of sea water. Results of the studies will be given to the Intergovernmental Maritime Consultative Organization when it starts functioning as a specialized agency of the United Nations.

The report outlines some of the studies made and steps taken by national governments, summarizes suggestions by a number of governments regarding technical methods for reducing discharge of oily wastes from ships, and reviews previous international action on the problem.
In its reply the United States said it had insufficient evidence that pollution of the high seas was serious enough to require international action, but expressed readiness to participate in joint studies. National and municipal laws against pollution are rigidly enforced in the United States, the reply stated.

WHALING

ANTARCTIC SEASON FOR 1952/53 ENDED MARCH 16: The 1952/53 pelagic (open sea) season for baleen whales in the Antarctic ended on March 16, just 75 days after the opening on January 2. The decision on the closing date reached by the Committee of International Whaling Statistics constitutes a forecast by that body that the maximum-catch quota of 16,000 blue-whale units will have been attained by that date. Although the 1952/53 season will be 11 days longer than last year's short season of only 64 days, the expeditions participating numbered only 16 against 19 in 1951/52. The 3 factoryships withdrawn from service this season were Norwegian vessels, states the March 16 Foreign Crops and Markets of the U.S. Department of Agriculture.

Seven countries are engaged in the 1952/53 operations, the same as last season (see table).

| Antarctic Whaling Expeditions, 1952/53 |  
| Nationality | Factoryships | Catcher Boats |
|-------------|--------------|
| Norway      | 7            | 95             |
| United Kingdom | 3              | 48             |
| Union of South Africa | 1              | 16             |
| Japan       | 2            | 30             |
| Panama      | 1            | 16             |
| Netherlands | 1            | 12             |
| U.S.S.R     | 1            | 15             |
| Total       | 16           | 240            |

Production of whale oil from the current season's Antarctic pelagic catch probably will approximate the 383,000 short tons produced in 1951/52, since the 16,000 blue-whale-unit quota remains unchanged. However, a small increase in output may result from the longer season due to the fact that whales grow fatter as the season progresses. In addition to the 1951/52 Antarctic pelagic output, some 25,000 tons of whale oil was produced from whales killed by catcher boats operating from 3 South Georgia shore stations. Data regarding production of whale oil in areas outside the Antarctic in 1952 are not yet available. This production, however, usually constitutes only about 10 percent of the total world output.

The catching of sperm whales is not subject to the same strict international regulations that govern baleen whales, although some limitations have been introduced. If preliminary data regarding the production of sperm oil by Antarctic expeditions prior to the opening of the baleen season on January 2, 1953, can be considered a criteria of the entire season's output, production of sperm oil will drop sharply in 1952/53. Of the 12 expeditions for which information is available, sperm oil output was only about one-third of the quantity produced as of the comparable date in 1952. Total Antarctic production of sperm oil in 1951/52 was about 53,500 short tons, including some 1,200 tons from South Georgia shore-station operations. Production of sperm oil in "other" areas in 1952 probably will be less than half the 71,000 tons produced in these areas in 1951.
INTERNATIONAL PACIFIC HALIBUT COMMISSION

MAJOR CHANGES IN THE NEW UNITED STATES—CANADIAN PACIFIC HALIBUT CONVENTION: There are several major changes in the revision of the "Convention between the United States of America and Canada for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea," which was signed in Ottawa on March 2, 1953:

1. The title has been altered to distinguish the new Convention from other fisheries treaties. The change in name from "The International Fisheries Commission" to the "International Pacific Halibut Commission," is to enable ready identification and to distinguish the Commission from other fishery commissions on which Canada and the United States are represented.

2. The number of commissioners has been changed. In the present revision the number of commissioners has been increased from 4 to 6—3 from each country.

3. A change has been made in the open fishing season for halibut. Under the new treaty the Commission has power to establish more than one open season. There was some doubt as to the Commission's power to do this under the former treaty. The granting of this power was considered necessary in order to allow the Commission to extend fishing over more than one period of time. The scientists of the Commission advanced the hypothesis that during a concentrated short season some fishing grounds might be underexploited. The experiment of dividing up the season will be useful to determine to some extent whether this hypothesis is correct.

4. Under the former treaty the Commission had power to limit or prohibit the incidental catch of halibut taken by vessels fishing for other species during the closed season only. Additional power has now been given to the Commission so that it has the right also to regulate such incidental catch during the open season.

The Convention between Canada and the United States of America for the preservation of the halibut fishery of the North Pacific Ocean and the Bering Sea was first negotiated in 1923. It was revised in 1930 and again in 1937, and during the past three years negotiations have taken place between the two countries which have led to the present revisions.

The first treaty limited the Commission's powers to regulate the fishery by a three-month closed season, and this was ineffective in stemming the decline. Evidence of the success of the Commission's work following the second revision of the Convention is shown in the increase in United States-Canadian halibut landings. The total Canadian-United States catch in 1952 from the areas under regulation was 62,282,000 pounds—the largest catch in 37 years, a press release from the Canadian Department of Fisheries points out.

The year 1888 marked the beginning of the commercial halibut fishery on the West Coast. The completion that year of transcontinental railroads opened eastern markets, especially Boston, to Pacific halibut. From a catch of 1,500,000 pounds in that year the take increased steadily until 1908. Approximately 50,000,000 pounds annually were taken from then on.

To achieve this production the industry had to use more efficient equipment with bigger and stronger ships. Diesel engines reduced costs considerably so that it was possible to make distant fishing a profitable operation. Even with the increased fishing effort there were fluctuations of millions of pounds from year to year.
Owing to the character of halibut which live along the ocean bed and because of the uneven bottom of the fishing grounds, ground lines are most effective for halibut fishing. The unit of gear, which is the amount of gear that can be easily operated by one fisherman, is known as a "skate." It consists of six fairly heavy ground lines, each about 50 fathoms long and to each of which, at 13-foot intervals, 5-foot lines are attached which carry a single hook at the end. At one time fishing was conducted from dories but they became outmoded and finally were prohibited in the fishery. With the skate as a measure of efficiency, it was shown that where formerly the average catch per skate was several hundred pounds, the catch had fallen to under a hundred pounds. In addition, where formerly the fishermen were able to get their fish in a 600-mile area, the fishery now covered an area of almost 1,800 miles.

When the Commission was first established, the fishery had fallen off considerably. Evidence of overfishing was apparent. A much greater fishing effort was required to bring in approximately the same amount of fish. It was relatively easy to establish a unit of catch as the fishing method was standard throughout the industry.

The original purpose of the Commission was to eliminate fishing during the halibut spawning season from November to February and to undertake an intensive investigation into the life history of the halibut. The new treaty concluded in 1930 set up regulatory power to rebuild the fishery.

Since that time the Commission has regulated the areas to be fished, changing the quota for each area as seemed advisable at the time. It established nursery areas where fishing was completely prohibited. It set a quota for the entire fishery which at present averages about 54,000,000 pounds, but it does not interfere with the rate of fishing.

The International Fisheries Commission seems to be successfully achieving its purpose—the gradual rebuilding of the halibut supply to a higher level of productivity. The Commission's achievements have shown what can be accomplished when two countries cooperate fully to reach a common goal.

The question of port privileges has been a consideration since the Commission was first established. Formerly the two Governments had to pass enabling legislation each year to renew the agreement. However, in March 1950 an international convention was signed allowing reciprocal port privileges for halibut fishing vessels on the West Coast. Instruments of ratification, exchanged later in 1950, brought the Convention into force. As a result Canadian and United States halibut fishermen are assured of yearly reciprocal privileges in the landing of catches for transshipment, and obtaining supplies, repairs, and equipment.
British Honduras

FISHERY PRODUCTS EXPORTS, 1952: Exports of marine products from British Honduras in 1952 totaled about 337,719 pounds, valued at BH$109,330 (US$76,530),

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<td>55,960</td>
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<tr>
<td>Total</td>
<td>337,719</td>
<td>109,330</td>
<td>76,530</td>
<td>377,251</td>
<td>89,899</td>
<td>62,929</td>
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reports a recent dispatch from Belize. This is a 10 percent drop in volume but a 22 percent increase in value as compared to 1951 when exports amounted to 377,251 pounds, valued at BH$89,899 (US$62,929).

Canada

VIEWS ON DEFINITION OF TERRITORIAL WATERS: There is currently before the Canadian Parliament, Bill No. 44 (Letter E of the Senate), "An Act to Protect the Coastal Fisheries," the purpose of which is to completely revise the present Customs and Fisheries Protection Act, which has been in effect since 1868 and was last revised in 1913. The proposed changes appear chiefly to be directed to providing more adequate definition of what is to be considered a fishing vessel, to define in more detail the authority of Protection Officers, and to extend the authority of the Government to license foreign fishing vessels to enter Canadian territorial waters, according to a February 18 U. S. Embassy dispatch from Ottawa.

Canadian territorial waters are defined in the new bill as "any waters designated by an Act of the Parliament of Canada or by the Governor in Council as the territorial waters of Canada; or any waters not so designated being within three marine miles of any of the coasts, bays, creeks or harbors of Canada and includes the inland waters of Canada." Under the authority of this provision it would be possible for the Canadian Government, at such time as it might deem opportune, to designate as "Canadian territorial waters" any coastal waters. In the debate in the House, in fact, before the bill was referred to the Standing Committee on Marine and Fisheries, various members expressed the desirability of extending Canadian territorial waters as far out as possible in order to preserve the inshore fisheries.

In the subsequent Committee hearings the Canadian Minister of Fisheries emphasized that the Bill gave the Government the power to designate territorial waters but did not alter the practice as to territorial waters. "The practice we have followed is continued," he said, "but it does provide authority to change the practice if it is ever decided by the Government to do so." Some countries, he added, had hastily, perhaps too hastily, attempted to apply the principles which they thought the judgment in the United Kingdom-Norway dispute announced, but the Canadian Government was proceeding more cautiously because of the complexity of the problems involved, and had set up an interdepartmental committee to study the implications of the judgment of the Hague Court and the subsequent steps taken since by various countries.

** ** **
NEWFOUNDLAND'S FROZEN FILLET EXPORTS TO THE UNITED STATES SLUMP: Newfoundland exporters of frozen fillets to the United States report a marked slump in the demand for their products. Large stocks are accumulating in cold-storage plants in St. John's, according to recent Newfoundland press releases. Although stated to be in part seasonal, large shipments to the United States from Iceland and Norway and a decline in United States retail meat prices, have been mainly responsible for this trend in frozen fillets. Reports that the Boston market price of cod fillets has dropped and that there are large stocks of fillets in cold storage in the United States caused some apprehension. Newfoundland ex-vessel prices for fresh haddock and cod have dropped to Canadian cent a pound. Although the present slump is the most severe ever to hit Newfoundland exporters to the United States market, there is, nevertheless, no good reason to doubt that a recovery can be attained later in the year, points out the St. John's Evening Telegram.

NEWFOUNDLAND HERRING MARKET WEAK: Herring fishing for this season is now over in the Placentia Bay area; the catch is reported to have been "poor." Newfoundland shippers of herring are understood to be having a hard time in disposing of their stocks at prices that will allow a small profit or even pay costs. It is reported there are fair stocks of herring on hand. Also, prices are very weak. The first of this season's Norwegian herring pack is scheduled to reach the United States early in March and Norwegian prices are so low that most Newfoundland packers cannot compete, according to a February 26 U. S. consular dispatch from St. John's.

NEW NEWFOUNDLAND FILLETING PLANT PLANNED: The construction of a new filleting and freezing plant at Fortune Bay, Newfoundland, was expected to get under way late in February, reports a February 20 consular dispatch from St. John's. It is anticipated that construction will be completed in less than 5 months so that production should commence in July. The Government announced that this project would be financed by both Canadian and United States private capital, most of which would come from the United States. An eventual annual output of 10 million pounds of frozen fishery products is expected, and a full line is contemplated, including frozen shellfish. A process called "flash freezing" will be used for freezing the fish. The entire output of this Fortune Bay plant will be marketed frozen in the United States by a Georgia firm.

A subsidiary plant to produce fish meal is also planned.

This will be the third filleting plant to be established in Newfoundland since early in 1952. One at Fermeuse commenced operations in mid-1952 and has a daily capacity for cutting and freezing 50,000 pounds of fillets (it has already produced as high as 35,000 pounds in an 11-hour shift). Storage capacity of this plant is 2½ million pounds. On November 30, 1952, there were 1,750,000 pounds of frozen fishery products (mostly cod fillets) on hand. A fish-meal producing plant is to be added to the Fermeuse plant in the future, with a capacity of 5 tons of meal per hour. Filleters are reported to be receiving C$0.82 an hour and general laborers C$0.72 an hour.

Another plant commenced operation at Gaultois, Hermitage Bay, in the fall of 1952. This plant's products are distributed in the United States by a Boston fishery firm.
Denmark

FISHERIES ATTACHE TO UNITED STATES TO ENCOURAGE SALE OF FISHERY PRODUCTS: In order to establish contacts to build up a United States market for fishery products, the Danish Ministry of Fisheries on February 28 announced the appointment of Erik Jacobsen to fill the newly-established post of Fisheries Attache in the United States. Primarily he will endeavor to encourage the sale of frozen brook trout and fillets, but will also promote the sale of all fishery products from Denmark, Greenland, and the Faroe Islands, a March 12 U. S. Embassy dispatch from Copenhagen declares.

Interviewed by the Danish press on March 1, the new Fisheries Attache emphasized that he will not be working as a diplomat but primarily as a businessman, helping Danish exporters and producers. He sees his job as temporary, and useful only until Danish exporters have established a foothold in the United States market.

The office of the new Fisheries Attache will be in New York City at the Building of the Danish Consul General. He is expected to leave for New York City early in April.

French Morocco

FISHERIES TRENDS, 1952: The 1952 fisheries catch for French Morocco was 103,000 metric tons as against 83,000 tons in 1951, according to an outline of the present fisheries situation presented by the French Zone Director of Commerce at a meeting of the Central Fisheries Committee on February 25. The canneries only absorbed 65,000 tons of the 1952 catch, and the balance went to fish meal and oil plants.

Canned fish exports to areas outside the French zone continued to drop sharply: 123,000 cases for 1952/53 as against 380,000 for 1951/52. France remained a relatively faithful customer, but Portuguese competition was strong in other markets, reports a March 2 U. S. consular dispatch from Tangier. French Morocco will increase its efforts to sell pilchards in the Middle East and Pakistan at low prices and to open outlets in the Soviet bloc. The French Moroccan canners are attempting to obtain cheaper oil and tin from France and French West Africa in order to reduce export prices for canned fish to meet competition.

Increasing interest is shown in the possibilities for tuna. Reports indicate that an exploratory cruise is searching for tuna-fishing areas between Agadir and Cape Verde.

A letter received from the Director of L'Institut Scientifique des Peches Maritimes du Maroc (Scientific Marine Fisheries Institute of Morocco), referring to the news item which appeared in the October 1952 issue of Commercial Fisheries Review (pp. 61-2), states that a crisis exists in the Moroccan sardine industry. However, this crisis is a result chiefly of marketing difficulties attributed to the high price of Moroccan sardines in oil. As far as the catch of sardines is concerned, there has been a steady increase in recent years. The abundance of sardines in 1952 has resulted in the development of the fish meal and oil industry, in addition to the canning industry.
restricted to the Bombay coast but later be expanded to cover the entire Indian coast. The Japanese firm has a trawler, Taiyo Maru No. 17, currently engaged in deep-sea fishing off the Bombay and Saurashtra coasts.

The first stage of the negotiations was carried on in Bombay. A representative of the Indian firm is now in Japan and will continue the negotiations, a February 11 U. S. consular dispatch from Bombay points out.

Italy

AID TO FISHING FLEET: The Italian Government plans to assist the fishing fleet in the conversion of 2,600 vessels from gasoline engines to Diesel propulsion, reports the February 1953 World Fishing, a British trade magazine. To insure that the plan will be carried out, the Government will provide each boat credit up to 1.5 million lire (US$2,400) at a low rate of interest and a long period of amortization.

SICILIAN FISHERIES: Imports Threaten Domestic Industry: Increased imports of canned fish from Japan and Peru will cause a grave crisis in the Sicilian fishing industry, according to an official of the Sicilian Regional Ministry of Fisheries. Recent trade treaties signed by Italy with both these countries allow for increased Italian imports of canned fish in exchange for other products. The amount envisioned in both treaties, plus the fish imports under the terms of present agreements with other countries, could total about 6 or 7 times the average Italian annual consumption of fish, according to the official quoted. There is considerable criticism of the Central Government in Sicily because of these new treaties and the Regional Government has gone on record in Rome against the new trade agreements, reports a January 30 U. S. consular dispatch from Palermo.

Sicily's fishing interests have strongly advocated that only needed quantities of fish be imported to cover the normal demands of the Italian market. They are demanding high tariff barriers on canned fish to keep the price of imports safely out of the price range of domestic fish. The Federation of Sicilian Industries, in fact, protested against a recent importation from Japan of 1,250 cases of canned fish classified as "tuna," which instead turned out to be "palamito," said to be somewhat similar to tuna but of an inferior quality to that of the domestic tuna marketed here.

It is reported that Sicilian manufacturers of canned fish products have marketed less than 12 percent of their latest production, due to the fact that dealers and outlets are still heavily stocked with these products. As a result of this lag some producers who had borrowed money from banks have been unable to reimburse the amounts of their loans and are in a serious and difficult position. This critical situation has come about even though the effect of the above-mentioned new trade treaties has not yet been felt.

Tuna Fishing: The tuna-fishing season which ended in June 1952 was a very poor one, both because the total catch was small and because the average size of fish was smaller than the standard for canning. Unfavorable weather conditions during the last six months of 1952 hampered fishing operations.
Fishing Legislation: Discussions have been held on a proposed law to set up in the more important Sicilian fishing centers offices for the purpose of coordinating matters involving the fishing industry, and to obtain more accurate data regarding the catch and canning production. Present statistics are incomplete and inaccurate and appear to be one of the important reasons why the Italian Government negotiated the impugned import treaties with Japan and Peru. The Government was under the impression that Italian production would merely be supplemented, rather than swamped, by these imports.

The Sicilian Regional Gazette of October 24, 1952, contains Law No. 50, in the interests of individual fishermen and fishing companies and cooperatives, the members of which have their residence and exercise their activities on the Island of Sicily. Special credits are granted persons in these categories:

1. For the purchase of newly-built motor fishing boats of not less than 20 and not more than 40 tons gauge.

2. For equipping with engines, modernizing, and repairing any type of fishing boats.

3. For purchasing equipment which is part of the motor fishing boats, including nets, lamps, and other instruments allowed by law, as well as fittings which permit the detection of fishing banks, and the installation of wireless transmitters.

4. For installation of equipment to conserve fish on board.

5. For setting up storerooms to preserve the fish and to transfer it to appropriate warehouses which should also have sufficient space for the necessary fishing boat supplies as well as other assistance to the fishing industry, including means of sea or land transportation to forward fish in refrigerated trucks or boats.

Financial aid is planned to the extent of 30 percent of the prospective expense if it is established to be in accordance with the correct cost, but not to exceed the amount of 5 million lire (US$80,000) if it involves an individual fisherman or associated fishermen, and not to exceed 50 percent of the expenses up to the amount of 8 million lire (US$130,000) for fishing cooperatives.

FROZEN COOKED TUNA LOINS EXPORTED TO U. S. FOR CANNING: For the past year Japan has been exporting experimentional lots of frozen cooked albacore tuna loins to the United States. This product has been processed by canners along the west coast of the United States into canned white meat tuna, with a large percentage packed as chunk style. The canned yield is about 112 cases (48 No. 1/2 tuna cans packed with 5 1/2 oz. of meat) per short ton.

In Japan the loins are prepared from albacore which have been beheaded, gutted, and cooked for 30 minutes (depending on size). Then the tail and fins are removed, the fish are skinned, and four fillets are cut from the backbone. After removing or trimming off the dark meat, the fillets are frozen 3 to 4 hours (depending on size) until glazed. Each fillet is finally wrapped in parchment paper and packed in paper or wooden boxes, 50 pounds to the box. Recovery of loins from whole fish is estimated at 30 to 40 percent.
Exports through January 1953 totaled about 225 short tons. The price f.o.b. Japan is reported about US$700 per short ton. At present Japanese plants are not equipped to produce frozen cooked loins for export in commercial quantities, reports a February 13 U. S. Embassy dispatch from Tokyo. They are lacking in freezing equipment.

Some experimental export shipments of frozen raw yellowfin tuna loins have also been reported. In addition, there was a sample shipment of a few cases of frozen precooked albacore tuna hand packed in open half-pound tuna cans. The tuna was not processed nor hermetically sealed. It was shipped to the United States for complete processing and the addition of salt and oil.

TUNA FISHERY PLANS FOR 1953: Mothership Tuna Fishing: Tentative plans for Japanese mothership tuna-fishing operations in 1953 provide for three fleets, reports a March 3 U. S. Embassy dispatch from Tokyo. Information obtained from news items and other Japanese sources indicate these fleets will consist of:

1. Mothership Tenyo Maru (10,000 gross tons) with 30 catcher boats; catch target approximately 16,400,000 pounds in two trips from May through November.

2. Mothership Settsu Maru (10,000 gross tons) with 20 to 30 catcher boats; catch target 8,400,000 pounds.

3. Mothership Ginka Maru (3,000 gross tons) with 10 to 15 catcher boats; catch target not announced. Some sources state this fleet may not materialize partly because of the excessive cost of converting the Ginka Maru to a tuna mothership.

The fleets are expected to concentrate on yellowfin tuna in equatorial regions, including the Solomon Islands where good results were obtained by one fleet in 1952.

Construction of Large Tuna Boats Planned: Construction of new large tuna boats is being planned for 1953. At least 15 and possibly 20 boats (320 gross tons each) are expected to be financed wholly or in part by the Japanese Government. These boats would be suitable for fishing the more distant tuna grounds from Hawaii southward to the equator and off northeast Australia. Many of the present Japanese tuna boats are less than 150 gross tons. The proposed 1953 construction of the larger tuna boats will supplement that of 10 similar boats in 1952.

Cooperative Sales System for Frozen Tuna: A cooperative sales system for frozen tuna for export to the United States is being discussed in Japanese fishing circles. A number of the leading producers believe that such a system should be patterned after the Tokyo Canned Tuna Sales Company which handles most of the sales of canned tuna by the canners to exporters. This company was organized in May 1952. Its principal purpose is to assist in stabilizing exports, avoid adverse effects in foreign markets, and prevent "dumping," excessive price-cutting, and other undesirable features of competitive trade. Proponents of the cooperative system for the sale of frozen tuna feel it would give support to the existing Japanese Government controls on exports of frozen tuna to the United States by: (1) checking and preventing three-way trading by some Japanese exporters selling to Canada for reshipment to the United States, and (2) checking and preventing exporters from rebating on sales to offset Government check prices on exports to the United States.
Tuna Exports to United States: The Japanese Government on February 16 increased the quota of frozen tuna exports to the United States by 3,000 short tons—from 18,000 short tons to 21,000 tons for the period ending March 31, 1953. Applications for allocations of the additional 3,000 short tons closed on February 18 and totaled 8,800 tons. Allocation of the 3,000 short tons was prorated to 23 applicants.

United States demand for canned tuna is not as brisk as for the frozen product. It is reported that the recent increase in the quota for frozen tuna is from 6,000 tons of tuna officially set aside in September 1952 for an anticipated rise in the quota for canned tuna. At that time the quota on frozen tuna was raised from 12,000 to 18,000 tons, but the canned set-aside was not utilized for raising the quota for canned tuna. Hence, a decision has been made by the Government to utilize it in equal portions to the exporters of frozen and canned tuna, i.e., 3,000 tons of frozen tuna (or the equivalent of 150,000 cases of canned tuna, which was the amount by which the quota for canned tuna exports to the United States was raised on February 16—from 1,000,000 cases to 1,150,000 cases).

NOTE: THE UNITED STATES EXPORT QUOTA FOR FROZEN TUNA HAS BEEN REPORTED IN BOTH METRIC AND SHORT TONS, BUT RECENT INFORMATION INDICATES THAT THE QUOTA HAS ALWAYS BEEN REPORTED BY THE JAPANESE GOVERNMENT ON A SHORT-TON BASIS.

* * * * *

SWORDFISH EXPORTS TO UNITED STATES, 1952: Japanese frozen swordfish exports to the United States in 1952 amounted to 9,910,731 pounds, valued at US$2,581,745, the Ministry of International Trade and Industry reports. This is approximately 2 million pounds and US$1.2 million less than in 1951, due to increased competition from Peruvian swordfish on the United States markets, states a U. S. Embassy dispatch from Tokyo dated February 27. Japanese swordfish exporters expect an upward trend in trade with the United States in 1953 because of some evidence of increased consumer demand for this type of product.

FACTORYSHIP CRAB-FISHING EXPEDITION IN BRISTOL BAY: An application has been filed with the Japanese Government by three of Japan's largest fishing companies to operate a joint factoryship crab-fishing expedition in Bristol Bay in 1953, according to a Japanese press report (Nippon Keizai, February 5). The application will be considered by the Japanese Fisheries Agency and approval is expected shortly, states the U. S. Embassy at Tokyo.

The fleet is expected to sail from Hakodate, Hokkaido, on April 8. The catcher boats will return there September 14, while the mothership Tokei Maru is scheduled to return to Yokohama on September 29.
Organization of the expedition will be as follows:

**Operational area** - Bristol Bay (exact location not yet officially defined).

**Period of operation** - 5 months from latter part of April to the beginning of September. Actual fishing time 125 days.

**Fleet** - 1 mothership Tokei Maru (5,000 gross tons) 6 small catcher boats (estimated 10 gross tons average) to be deck-loaded on mothership. 6 catcher boats (60 to 70 gross tons average).

**Crew members** - Mothership - 337 men
   Catcher boats - 84 men
   Total - 421 men

**Gear** - 35,000 tan (approximately 7 million yards) of gill nets, 25 pairs of trawling nets.

**Packing facilities** - 2 lines of canning machinery, each line with capacity of 200 to 300 cases (48 6 1/2-oz. cans) daily.

**Catch target** - By gill nets: 630,000 crabs  
   By trawling: 470,000 crabs  
   Total - 1,100,000 crabs

**Production** - canned crab meat, 50,000 cases (48 6 1/2-oz. cans), (40,000 first grade and 10,000 second grade).

**MOTHERSHIP-TYPE SALMON EXPEDITION TO NORTH PACIFIC:** The Japanese mothership-type salmon-fishing expedition to the North Pacific for 1953 will include 3 motherships and 85 catcher boats (35 more than in 1952), reports a February 6 U. S. Embassy dispatch from Tokyo. Plans for the 1953 expedition as compared with the 1952 expedition are listed below:

<table>
<thead>
<tr>
<th>Item</th>
<th>1951</th>
<th>1952</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motherships</td>
<td>Kaiko Maru (2,940 gross tons)</td>
<td>Shinko Maru No. 1 (521 gross tons)</td>
</tr>
<tr>
<td>Catcher boats</td>
<td>Meisei Maru (4,765 gross tons)</td>
<td>Tenyo Maru (557 gross tons)</td>
</tr>
<tr>
<td>Catcher boats</td>
<td>Tenyo Maru No. 3 (3,689 gross tons)</td>
<td>Tenyo Maru No. 3 (3,689 gross tons)</td>
</tr>
<tr>
<td>Vessels:</td>
<td>85</td>
<td>50</td>
</tr>
<tr>
<td>Industry research</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Government research</td>
<td>Probably 2</td>
<td>2</td>
</tr>
<tr>
<td>Government patrol</td>
<td>Probably 2</td>
<td>2</td>
</tr>
<tr>
<td>Catch target</td>
<td>Undecided</td>
<td>1,800,000 fish (salmon)</td>
</tr>
<tr>
<td>Actual catch</td>
<td>-</td>
<td>2,102,787 fish (salmon)</td>
</tr>
<tr>
<td>Period of operation</td>
<td>May-August</td>
<td>May 10-August 6</td>
</tr>
<tr>
<td>Area of operation</td>
<td>Same general area as in 1952 with emphasis on Kamchatka and North Kuriles</td>
<td>South &amp; west of the Aleutians (west of 177°E, longitude until July 3, then shifted to better fishing grounds off Kamchatka and northern Kurile Islands.)</td>
</tr>
</tbody>
</table>
The 1952 expedition was operated jointly by the same three large fishing companies which will engage in the 1953 expedition. In 1953, each of the three fleets will be operated independently by each company. The 1952 operation was financially profitable, with much of the catch being consumed in Japan, especially as salted fish during the fall and winter months and in the New Year holiday season.

* * * *

JAPANESE-AUSTRALIAN FISHERIES TREATY TALKS PROPOSED: Talks for a Japanese-Australian fisheries treaty were recently proposed by the Australian Government, according to a Japanese press release (The Mainichi, February 19) supplied by the U. S. Embassy at Tokyo. The talks were proposed for sometime in April in Australia. The proposal also requested Japan to suspend the pearl-shell fishing expedition which was scheduled to sail to the Arafura Sea north of Australia sometime in March. It is believed that this expedition prompted the Australian Government to make the proposal.

Under Article 9 of the San Francisco Peace Treaty Japan agreed to "enter promptly into negotiations with Allied Powers so desiring for the conclusion of bilateral and multilateral agreements providing for the regulation or limitation of fishing and the conservation and development of fisheries on the High Seas."

There are two reasons why Japan has delayed a reply to this proposal:

1. Japan would like to hold the negotiations in Tokyo, because it is more economical, and because it wants its fisheries experts close at home to handle the problems that constantly arise in this vital Japanese industry.

2. Considering the fact that preliminary negotiations for the reopening of deadlocked Japan-Republic of Korea treaty talks is now in progress, a priority should be given to the Korean talks rather than to the Australian proposal.

Mexico

SINALOA SHRIMP INDUSTRY AIDED BY STRONG UNITED STATES MARKETS: High shrimp prices in United States markets have to a great extent offset the light shrimp production for Sinaloa Province, reports a February 10 U. S. consular dispatch from Mazatlan. Freezing-plant operators report that up through January 1953 they have been able to cover expenses and to pay their debts. The plants will be able to continue in operation until the end of the season if the availability of shrimp does not decrease.

| Sinaloa Shrimp Exports to the United States, January 1953 with Comparisons |
|-----------------|-----------------|-----------------|
| **Port**        | **January 1953** | **December 1952** | **January 1952** |
| Mazatlan        | 667,019          | 814,131          | 774,353          |
| Tocotalbampo    | 346,030          | 259,526          | 389,250          |
| **Total**       | **1,013,049**    | **1,073,657**    | **1,163,603**    |

At present most of the shrimp shipped to the United States is jumbo size (under 15 count) and shippers receive 95 U. S. cents per pound (about US$2,100 per metric ton) f.o.b. New York, Chicago, and Los Angeles. Processing and shipping costs amount to 16 U. S. cents per pound (about US$350 per metric ton). The processors pay 53 U.S. cents per pound (US$1,163 per metric ton) ex-vessel and realize a profit of approximately 26 U. S. cents per pound (US$590 per metric ton).
Sinaloa shrimp exports to the United States in January totaled 1,013,049 pounds—a decrease of 6 percent when compared with December 1952 and 13 percent less than in January 1952 (see table).

GUAYMAS SHRIMP PRODUCTION CONTINUES TO DECLINE: Shrimp production at Guaymas continued to dwindle during January and boat owners reported their catches by kilos rather than by tons, reports a February 6 U. S. consular dispatch from Guaymas. The total January production of little more than 200 metric tons marked a new monthly low in West Coast shrimping. This figure is less than one third of the total landed during any January at the height of the boom, and is 50 tons under December’s meager catch.

As the catch became lighter, boat owners sent their vessels as far south as Salina Cruz on the Isthmus of Tehuantepec in search of the disappearing shrimp. A few craft fishing in the Gulf of Tehuantepec caught from 3 to 4 metric tons of shrimp, but the modest spurt failed to create optimism as it would have earlier in the season.

A few Guaymas shrimpers are considering the conversion of their craft to tuna clippers, a type of vessel from which a few of the shrimp boats were originally converted. However, it is believed installation of bait tanks and auxiliary machinery would prove too expensive for the majority of the hard-pressed shrimpers; neither would credit be forthcoming.

The larger shrimp operators were granted a considerable measure of financial relief during January when the Mexican Government granted them a moratorium on the 5-million pesos (US$578,000) loaned shrimp operators at the beginning of the 1951/52 season. The moratorium was granted with the understanding that interest payments on the loan would be brought up to date and maintained, and that insurance premiums would not be permitted to lapse. Otherwise, boat owners not financially able to meet these conditions presumably would have their vessels and equipment attached by the Government. It is widely believed that many of the more marginal operators will be forced out of the industry by the interest and insurance payment requirements. The moratorium is to extend to December 31, 1954.

One-half of the Guaymas shrimping fleet left Guaymas during February for Salina Cruz, Oaxaca, to fish in the Pacific off the east coast of Mexico. Catchers there have been described as "fair," but it is not expected that the boat operators will have a good year, reports a March 3 U. S. consular dispatch from Guaymas. Shrimp taken off Salina Cruz are being landed there and shipped directly to Mexico City and El Paso, Texas. This practice will probably keep most of the freezing and packing plants at Guaymas closed.

Some boats have ventured as far as the Pacific coast of Baja California. Fishing at such distances from the home port (1,000 miles and more) reduce the operating margin of profit drastically. At present it is estimated that this year’s shrimp catch by the Guaymas fleet will be about 30 percent less than in the 1951/52 season when 3,455 metric tons were landed. Last year was considered very poor in comparison with the 1949/50 and 1950/51 seasons when over 5,000 tons of shrimp were landed in each season. Since Guaymas depends heavily on the shrimp catch for its livelihood, this is a serious financial and economic problem for the city.

Local newspapers in Guaymas, Ciudad Obregon, and Navojoa have joined the Mexican press in other parts of the country in giving heavy and sensational coverage to the operations of what they term "pirate" American shrimp boats off the east coast of Mexico. They have demanded that the Mexican Government use any and all
means to prevent foreign boats from fishing near the Mexican coast. However, no such problem exists off the West Coast.

* * * * *

**SPINY LOBSTER AD-VALOREM EXPORT TAX REDUCED:** The ad-valorem tax on exports of fresh, cooked, or refrigerated spiny lobster from Mexico was reduced by the Mexican Government from 15 percent to 3-3/4 percent, retroactive to January 1 this year and to expire December 30, 1953. This action was announced by an Acuerdo published in the Diario Oficial on February 23, and signed by the President of Mexico. The specific duty of 0.03 centavos per gross kilogram plus 10 percent additional listed under Fraction 11-10 remains unchanged.

The reduction, according to the Acuerdo, was made in view of the serious competition from North African and Australian spiny lobster exporters, as well as increased costs of production and the low price prevailing in consuming centers.

All firms which channel their spiny lobster exports through the Banco Nacional de Fomento Cooperativo, S. A. de C. V., or under its authorization, are granted the reduction, according to a U. S. Embassy dispatch from Mexico City dated February 26.

**Norway**

**NEW FISHERY-TYPE "ASDIC" TESTED ON COMMERCIAL HERRING VESSEL:** A new fishery-type ASDIC, which registers herring schools at a distance of 1,000 meters (about 3,280 feet) was tested recently by personnel of the Norwegian Directorate of Fisheries on the commercial fishing vessel Ramoen, reports the January 4 Fiskaren, a Norwegian fishery magazine. Tests were made on the herring fishing grounds, and it is hoped this new ASDIC will prove practicable for the fishing fleet. The civil engineer who was on board the Ramoen during the tests said: "We are well pleased with the tests we made so far. We registered herring up to a distance of 1,000 meters and many times had good contacts."

In previous tests on the Norwegian fishery research vessel G. O. Sars, contact with herring schools was made at distances up to 2,000 meters (6,560 feet), but at this distance an observer who has experience in herring detection is required, reports Finn Devold, Norwegian fishery scientist.

The captain of the Ramoen says that ASDIC can also be used for vertical registering and is unsurpassed when compared with the usual echo sounder. It is simpler in construction and takes less space than other types of ASDIC. It now must be determined if this new type is of sufficient value for use by the largest fishing vessels.

The ASDIC equipment installed in the fishing vessel Ramoen is a prototype of a commercial model, reports a March 3 U. S. Embassy dispatch from Oslo. This equipment was constructed and tested at the laboratory of the ASDIC section of the Norwegian Defense Research Establishment, and was installed in the fishing vessel for final tests. The equipment is not yet available. However, production rights have been granted to an electronics firm in Oslo. The total electrical power requirement for operation of the equipment is approximately 350 watts, 220 V, 110 V, or 24 V d.c.

* * * * *
HERRING CUTTING MACHINE: A new herring cutting machine built in Aalesund, Norway, by Per Borch Olsen, that is reported to have increased capacities and operating costs, has been well received in the Aalesund and Bergen districts. The machine is fed by hand and has a normal capacity of 180 herring per minute, or 20 barrels per hour. It costs between kr. 3,000 and 4,000 (US$420 to 560); a Swedish machine that has been used to date costs kr. 25,000 (US$3,500). A similar machine for use on Norwegian fishing vessels that fish for Icelandic herring is also under construction by the inventor, according to the February 11 Fiskaren, a Norwegian trade publication.

BLOCK FREEZING OF BAIT IN ALGINATE GELATIN: A promising method for block freezing of bait in an alginate gelatin has been tested by a Drammen, Norway, firm. The method appears suitable for preserving bait over long periods of time. It is reported to hinder the bait from breaking up and to protect it from rancidity. Tests at the Industry Laboratory in Kristiansund and during practical trials in the Greenland fishery showed promising results. Additional tests will be made this winter at various freezers under the direction of the inventor, Alf Olsen.

WINTER "LARGE HERRING" FISHERY: Catch For 1953 Season: The 1953 winter "large herring" fishery season came to an official close on February 15 with a total catch of 559,000 metric tons, states a February 18 U.S. Embassy dispatch from Oslo. Thus, in spite of a late start and unusually stormy weather during the first part of the season, the 1952 "large herring" catch of 549,000 metric tons was exceeded, but the record catch of 648,000 metric tons in 1951 was not reached.

The herring did not arrive at the regular locations until January 27, about two weeks late, due to the poor weather and the fact that the herring remained deep in the water. However, in a two-week period, starting the first of February, herring were scooped out of the sea at an average rate of about 37,000 metric tons per day, an intensity never before equalled in the history of Norwegian fishing. An all-time record for a single day's catch, set on February 3 (65,000 metric tons), was exceeded on February 7 when over 93,000 metric tons were landed between Aalesund and Floro in a 24-hour period.

The vessels knew exactly where to go when they set off for the herring grounds. The areas of maximum fish concentration had been pinpointed by scientists on the research vessel Q. O. Sars and promptly relayed to the fishermen by radiotelephone.

It is hoped that the Norwegian winter herring fishery (comprising "large herring" and "spring herring") this year may live up to the high budgetary estimates prepared before the start of the season—884,000 metric tons or the same as was caught in 1951.

The excellent results obtained during the last two weeks of the "large herring" season are attributed partly to the larger number of fishing craft participating and partly to the wider use of electronic devices, and in spite of the unfavorable water temperatures and weather.

The importance to the Norwegian economy of this favorable turn of events will be seen when it is remembered that in 1952 the winter herring catch accounted for almost 5 percent of Norway's foreign exchange earnings from exports (excluding ships).
1. The use of nylon purse seines. The Norwegian winter herring are so lively that several nylon seines were lost by a trapped school suddenly diving; ordinary seines break under the impact and can be mended, but nylon nets, being too strong, are carried away at such times.

2. The use of suction hoses to bring herring aboard from the seine. The dip-net method is faster and less harsh.

3. The use of the seiners themselves rather than dories to make the "cast" of the purse seine. The dory method is more flexible and better adapted to the crowded conditions on the Norwegian herring banks.

Operation of Herring Sales Organization: The same fisheries expert explained the function of the herring sales organization (Norges Sildesalslag), which has been in operation for the past 25 years. Before, confusion and uncertainty had hampered fishing operations during the best part of the season. Now, as each ship completes its catch of herring it radios the nearest office of the organization giving its location, speed, amount of catch, and other pertinent information. The office is then able to direct each returning vessel to the place (or places) where it should discharge its cargo. The organization maintains an equalization fund so that fishermen get the same price no matter to whom they sell their catch. At the same time, herring meal plants do not pay as much for their raw material as do, for instance, freezing plants. Freezing plants take only the top layer of herring from each ship, leaving the rest (which is slightly older and more crushed) to the salting plants and meal and oil factories.

Prices For 1953 Season: The prices received by the winter herring fishermen this season have been 18.50 kroner per hectoliter (1.3 U.S. cents per pound) for "large herring" caught before February 15, 1953, and 15.50 kroner per hectoliter (1.1 U.S. cents per pound) for "spring herring" caught after that date. The Norwegian Price Directorate has also established a complex system of prices to be paid during different parts of the season by different classes of processors. The reason for lower prices during the latter part of the season is that the herring when they first arrive off the coast of Norway are extremely fat and full of roe and milt. By the end of the season, after they have spawned and are ready to go back to sea, the herring are lean and less valuable both as a food and as an industrial raw material. February 15 has been set arbitrarily as the last day of the "large herring" season each year.

Composition of Herring Fleet: The Norwegian herring fleet is composed primarily of two types of fishing vessels—drift gill netters and purse seiners. The former are smaller and less complex. Although they are in the majority, they account for a smaller proportion of the catch than do the seiners. Furthermore, herring caught in drift nets are of lower quality because while being removed from the nets they often become damaged. However, drift netters are at an advantage when the herring are too deep in the water or too elusive to be caught by purse seiners. As the season progresses, a drift-net fisherman can put out more and more nets, since the herring become sluggish and are less likely to swim off. A total of 600 large purse seiners and 2,500 drift gill netters, manned by about 30,000 fishermen, operated this year.

Both the purse seiners (which average 300-400 metric tons of herring a set) and the drift netters (with a daily catch of about 40 tons) make use of echo depth sounders to spot the exact location of the schools. Some of the larger vessels are also equipped with sonar. At the present time, nearly 3,000 echo depth sounders are in-
stalled aboard Norwegian fishing vessels. Also, all of the larger and many of the smaller craft feature radiotelephone.

Pearl Essence Factory Closes: A pearl essence factory, built a few seasons ago by private United States capital, which used scales from the freezing plants, was closing this year because of the extremely poor world market situation. It would sell its present stock, hoping for an improvement next year. The herring scales, which form the basic raw material, are saved by the freezing plants during the initial washing process.

Portugal

New Cod Fishing Method Tested: A new method for catching cod by long lines was tested recently on the Newfoundland and Greenland banks by the Portuguese vessel S. Ruy, according to the February 1953 World Fishing, a British fishery magazine. Dories were replaced by powered Danish-made pine-and-oak boats similar to powered whaleboats. The boats, with a length of 20 feet, a beam of 6 feet 10 inches, and a depth of 3 feet, are equipped with a 10 hp. engine and a variable-pitch propeller. They have a capacity for 3,960 pounds of fish.

The boats use three different types of lines. For fishing in depths of about 30 fathoms or less, a main line 5,250 fathoms long with 10,500 hooks tied to gangions or branch lines spaced 3 feet apart is used. The gear for depths between 30 to 100 fathoms is 10,800 fathoms long with 7,200 hooks and the same number of gangions. On the edge of the fishing banks in depths over 100 fathoms, a 12,600-fathom line with 4,200 hooks attached to gangions spaced 3 fathoms apart is used.

In setting the line, the "iron" and attached buoy are thrown overboard first. Then, as the boat sails, the rest of the gear is thrown out as the fishermen bait the hooks. The line is hauled back aboard by a small line hauler with two horizontal pulleys operated by the engine and a line roller.

Advantages of this new method are primarily in the increased fishing range from the mothership and reduced danger for the fishermen. Further, it would permit the exploitation of deeper fishing banks where it is impossible to haul lines by hand.

Thailand

Status of the Fisheries, 1950: Catch: The total estimated catch of fresh- and salt-water fish in Thailand during 1950 amounted to 158,000 metric tons, a slight increase over the 154,000 metric tons landed in 1949 (table 1), reports a January 12 U. S. Embassy dispatch from Bangkok.

Byproducts: The manufacture of fishery byproducts is practically unknown in Thailand. Some fish meal is produced by primitive methods, but the output is negligible. There is no fish-oil industry at present. The Department of Fisheries reports that the Ministry of Health is actively considering a project for the extraction of shark-liver oil.

Consumption: Fish consumption by Thailand inhabitants is estimated by the Director-General of the Department of Fisheries at 18 kilograms (39.6 pounds) a year
per person or approximately 342,000 metric tons for all of Thailand. (Editors' note: this is believed to represent landed weight.) This includes fresh fish as well as local and imported processed fishery products.

BAMBOO TRAPS FOR CATCHING FISH IN INLAND WATERS. FAO HAS IN THAILAND AN EXPERT TO ASSIST IN IMPROVING FISH-CULTURE TECHNIQUES.

SEPARATING CATCH OF A FISHING BOAT ACCORDING TO KINDS AND SIZE. THE WOMAN IN THE CENTER IS ONE OF THE FISH BUYERS.

<table>
<thead>
<tr>
<th>Species</th>
<th>1950</th>
<th>1949</th>
<th>1948</th>
<th>1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Fish:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restrelinger (Pla Too, Pla langue)</td>
<td>39,000</td>
<td>51,000</td>
<td>29,000</td>
<td>22,000</td>
</tr>
<tr>
<td>Sharks</td>
<td>2,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Other marine fish</td>
<td>28,000</td>
<td>30,000</td>
<td>21,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Shrimp, prawn, and crab</td>
<td>11,000</td>
<td>9,000</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Mollusks</td>
<td>36,000</td>
<td>16,000</td>
<td>58,000</td>
<td>56,000</td>
</tr>
<tr>
<td>Total</td>
<td>116,000</td>
<td>109,000</td>
<td>120,000</td>
<td>114,000</td>
</tr>
<tr>
<td>Fresh-water Fish:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murrel or serpentine headed fish (Pla Chon-Ophicephalus striatus); Catfish (Pla Duk-Glarias batrachus); Anabas testudineus (Pla Moh)</td>
<td>18,000</td>
<td>18,000</td>
<td>18,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Carp (Pla Taphien-Puntius javanicus)</td>
<td>3,000</td>
<td>4,000</td>
<td>3,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Other fresh-water fish</td>
<td>18,000</td>
<td>19,000</td>
<td>17,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Shrimp and prawn</td>
<td>3,000</td>
<td>4,000</td>
<td>3,000</td>
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</tr>
<tr>
<td>Total</td>
<td>42,000</td>
<td>45,000</td>
<td>41,000</td>
<td>37,000</td>
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<tr>
<td>Grand total</td>
<td>158,000</td>
<td>154,000</td>
<td>161,000</td>
<td>151,000</td>
</tr>
</tbody>
</table>

Union of South Africa

ABALONE CANNERY ESTABLISHED: An abalone (perlemoen) cannery has been established recently at Gansbaai on the South African coast east of Cape Town, reports the January 1953 issue of The South African Shipping News and Fishing Industry Review. The abalone are obtained by divers. Canned abalone is becoming popular among the Chinese in Malaya and other Far Eastern countries.
United Kingdom

BOX-WASHING MACHINE USED IN SCOTLAND: Mechanized washing of dirty fish boxes has been pioneered in Scotland by a trawler-owner and fish salesman in his modernized plant at The Shore, Granton. The machine can wash about 1,000 used fish boxes per day, reports the January 17 issue of The Fishing News, a British trade periodical. Built by a well-known British washing-machine manufacturer, it is the first machine of its kind in Scotland.

The dirty box travels through the washer mechanically, is subjected to a series of processes, and emerges thoroughly cleaned at the delivery end. The washing routine is pre-rinse, detergent, and a very hot spray. The box emerges so hot that it dries quickly. Truckloads of dirty boxes are run up to the mouth of the washer and are fed from the truck platform into the machine by hand. An operator at the delivery end examines the washed boxes, checks for defects, and puts clean, whole boxes on a gravity-roller conveyor running at right-angles to the machine. At the end of the gravity run the box is picked up by an elevated rubber conveyor, which takes it to loading bank level.

Boxmakers and box-pool operators from other Scottish ports have visited the installation at Granton, which also does box washing for a number of other trawler-owners.

NEW FISH OIL-EXTRACTION PROCESS DEVELOPED: A British firm recently developed a new process for extracting oils and fats from naturally occurring cellular materials. These include fish and fish-liver oils. The practical application of the process to these fishery products is being actively investigated, reports the February 1953 World Fishing, a British trade magazine.

The new method is known as the Chayen cold-rendering process after its chief inventor. It dispenses with heat, which has hitherto been necessary in some form in all rendering processes, and eliminates the inevitable waste and degradation of the products due to heat.

In fact, this new process is based on the principle of impulse rendering, which consists of passing the raw material, suitably cut up and suspended in a continuous stream of cold water, through a vessel in which the water is subjected to mechanical impulses of high speed and frequency. This has the effect of shattering the cell walls and instantly removing their oil or fat content.

For fish and fish-liver oils, the apparatus is clean and compact, and the product is of extremely high purity. By the same token, the yield of a fish-meal plant run in conjunction with this new impulse renderer would also be of very high quality. The potentialities of the new process for use aboard trawlers and fish factory ships are obvious, especially in view of the fact that sea water can be used for the feed. In fact, according to the manufacturers of the equipment, sea water may have advantages over fresh water for this application.
BRITISH FISHERMEN TO BE DENIED FISHING PRIVILEGES OFF NORTHERN COAST OF RUSSIA:

British fishermen will be denied fishing privileges in a 400-mile coastal fishing area in the Barents and White Seas off the northern coast of Russia commencing in June 1953. The Russian Government recently gave the required 6-months' notice to end the Anglo-Soviet fisheries agreement. This agreement, signed in May 1930, was to run until either party gave 6-months' notice of termination. It allowed United Kingdom-registered fishing vessels to fish between 3 and 12 miles from northern U.S.S.R. coasts and their dependent islands. The agreement was intended as an interim measure before the conclusion of a mutually-desired formal convention, reports the January 24 Fish Trades Gazette, a British trade magazine.

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WHITE FISH AUTHORITY LOANS FOR FISH PROCESSING: Arrangements have been approved for making loans to assist in providing, acquiring, reconditioning, or improving plants for processing white fish in the United Kingdom, a memorandum from the White Fish Authority, dated January 19, 1953, announced. This includes the installation of the processing plant and equipment, the purchase of the site, the erection and adaptation of buildings, and the provision of reasonable storage, reports a March 6 U.S. Embassy dispatch from London.

The memorandum specifies "processing includes preserving or preparing fish or manufacturing products from fish, by any method for human or animal consumption." Loans may be made for canning, quick-freezing, fish-meal, smoking, and salting plants, and factories engaged in the manufacture of fish cakes, fish paste, and other fishery products.

Loans made by the Authority will not exceed 80 percent of the cost as approved by the Authority, and will be available for a period not to exceed 20 years, with specified rates of interest. Until further notice the rate of interest will be 3 percent for loans for not more than 5 years, 4 percent for loans for more than 5 years but not more than 15 years, and 4½ percent for loans for more than 15 years but not more than 20 years. The terms and conditions of each loan are to be determined by an agreement between the borrower and the Authority.