




## Brazil

WHALING: Two land stations have been engaged in whaling operations in Brazil for more than thirty years, according to information obtained from the Brazilian Division of Hunting and Fishing of the Ministry of Agriculture and as reported by a January 11 American consular dispatch from Rio de Janeiro. The larger of these is located at Cabedelo, Estado da Paraiba do Norte. The second, is located at Imbituba, Estado de Santa Catarina.

The company at Cabedelo is reported to be well equipped with modern processing machinery, including boilers and autoclaves. At present, they have only one sea-going vessel but a new one is promised for early delivery. The concern employs several Norwegian specialists, and catches an average of about 40 whales per year. The 1949 catch was 32. The size of the whales caught varies from 42 to 60 feet in length, and the distribution by sex is, roughly, 66 percent male and 34 percent female. No information is available regarding the amount of oil produced, the quantity and type of byproducts, or the species of whales taken.



## British Guiana

STATUS OF FISHERIES: There is only one commercial fishing company operating in British Guiana, a January 6 American consular dispatch from Georgetown reports.

This firm maintains a fleet of six schooners (sail and auxiliary) for deep-sea fishing. Red snapper is the leading species caught. Demand exceeds supply and there is no export. The firm has large cold storage facilities and also manufactures ice.

Several hundred individual fishermen are active in inshore waters, taking small fish and shrimp, and a large number of farmers and others, regularly take fresh-water shrimp in canals and creeks. The Fisheries Division of the British Guiana Department of Agriculture is endeavoring to organize fishing on a more regular basis and is encouraging the formation of a fishermen's cooperative for improved equipment and methods in the fishing and for the marketing of the catch.

The Government Produce Depot has recently made a few trial shipments of locally-produced shrimp meal for stock feed to the near British West Indian islands, and small amounts of fish glue are occasionally exported to the United Kingdom by a local firm.

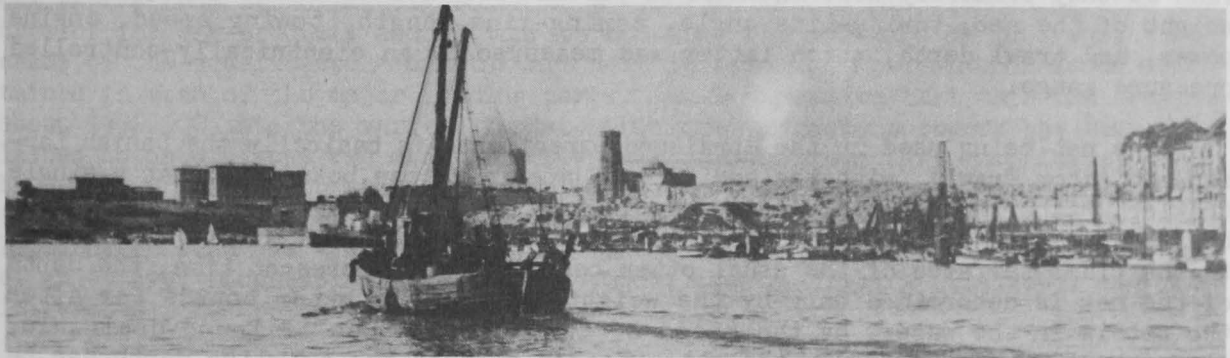


## France

**FISHING FLEET:** France is rebuilding its fishing fleet. During the war, the French fishing fleet lost 60 percent of its vessels, and most of the vessels remaining are worn out as a result of war service, according to the January 14 issue of The Fishing News, a British periodical. The rebuilding program provides for the construction of 170 trawlers, including 142 motor vessels and 28 steamers. French shipyards built or are building most of these vessels, while 76, already delivered, were built in England, the United States, Canada, and Belgium.

All the new fishing vessels have a distinctive appearance with slightly raked bows, cruiser-type sterns, streamlined superstructures and rather squat funnels. All are fitted with one of three types of electrically-driven trawl winches of French make.

Towards the end of 1949, a typical large motor trawler (Magdalena) was launched. This was the fifth of six ordered from a shipyard at Rouen. Four had already been delivered and the sixth will be finished in February. These trawlers are equipped for cod fishing off Newfoundland, 241 ft. 2 in. in length, with a beam of 48 ft. 7 in., a depth of 20 ft. 8 in., and a loaded draft of 18 ft. 1 in. Capacity of the fish hold is 2,240,000 pounds. Constructed with one continuous deck, the hull is divided into eight watertight compartments. Most of the crew are accommodated in the forecastle, which is 49 ft. 3 in. long and 7 ft. 7 in. high, while the balance of the crew are accommodated aft or in the bridge structure. A recreation room for the crew and drying rooms are provided.



FRENCH TRAWLER LEAVING THE DOCK AT MARSEILLES, FRANCE.

Propelling machinery consists of a six-cylinder, four-stroke, single-acting reversible-type engine, developing 1,100 h.p. at 170 r.p.m., giving a speed of 11 knots. Its speed can be reduced to 50 r.p.m. when handling the trawl. Auxiliary engines are driven by current supplied by two single-acting, two-stroke oil engines of 250 h.p. each, driving a 115 kw. generator for the trawl winch and a 44 kw. generator for general service. There is also a 44 kw. emergency set, driven by a single-acting four-stroke engine. Though all auxiliary machinery is electrically driven, steam is necessary for deck use, as well as for liver processing, domestic heating, and washing.



## German Federal Republic

DEVELOPMENT OF GERMAN FREE-SWIMMING TRAWL: Expenditures of DM 80,000 (\$24,000 at predevaluation rate of exchange) for the development and testing of a free-swimming trawl was authorized by the committee controlling the Bremerhaven Equalization Fund in the summer of 1949, according to an American consular dispatch from Bremerhaven dated January 26. Tests on the use of the recording-marine sounder with this trawl will be conducted in conjunction with these experiments. It was hoped that the combined use of the free-swimming trawl and the recording-marine sounder would make possible the use of the older trawlers in the hitherto untouched pelagic fishery.

The use of the recording-marine sounder in the high-seas fishery is a novelty in Germany and much attention is being given to new applications of the device. During the 1949 German herring season, for example, a special observer from Germany's National Fisheries Research Institution was stationed on board the fisheries protection boat Frithjof to evaluate sounder charts. Sounder technique proved to be very useful on many fishing grounds, but was a failure off Iceland as already-located fish schools there seemed to disappear within a few minutes.

Although the value of the recording sounder seems to be established in Germany, even for ground trawling, the free-swimming trawl has yet to prove itself.

The Hamburg trawler Stralsund, typical of the 25-year-old German type, is being used for the tests of the new technique, and made one voyage in September and a second at the end of November 1949. These first two trials produced little fish as they primarily were intended to provide data on interrelationships between weight of the net, towing-line angle, towing-line length, towing speed, engine power, and trawl depth, which latter was measured by an electrically-controlled pressure gauge.

The net being used in the Stralsund experiments is basically the Danish Larsen net (Atom Trawl), with the addition of special otter boards so that a single trawler, rather than two separate vessels, may pull the net. The special otter boards, invented by the German Sueberkrueb, are hydrodynamic foils in contrast to the plane surfaces of the usual otter boards. At the present time, the depth of the net is determined only by the weights put on the otter boards, or after the net is in the water, by the speed of the vessel. But if found desirable, air tanks may be attached to the otter boards so that the trawling depth can be set independently of the trawling speed. The fact that the free-swimming trawl has much less drag than a trawl resting on the ocean bottom means that even the small, older trawlers designed for ground trawling in not too deep waters have a reserve of power when using a free-swimming trawl.

A very important explanation for the smallness of the catch made by the Stralsund on its first two test voyages is that few if any schools of pelagic fish were located by the sounder either in the North Sea or in the English Channel. Local officials would like to have a sounder which would detect fish not only under the vessel but also ahead or to one side of it. However, research on such projects is prohibited for reasons of military security by the occupying powers. But the idea of using even the present imperfect sounders with a free-swimming trawl has not been given up, and the Stralsund will be used this year for voyages to other fishing grounds.

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FISHING INDUSTRY TAXES REDUCED: A further reduction of taxes on the German fishing industry took place on January 1, 1950, when the rationing tax (Lenkungsabgabe) on sea fish and fishery products was abolished completely. First levied in 1936, this tax was intended to provide the Government with funds to meet the out-of-the-pocket cost of its fish-rationing measures, a January 19 American consular report from Bremerhaven reports. No part of this tax could be passed on to the consumer. In view of the almost complete ineffectuality of the Government-controlled distribution system in the summer and fall of 1949, these taxes were cut 50 percent for the first time on November 1, 1949.

Abolition of the rationing tax is consistent with the German Government's plan not to maintain special controls on the fishing industry after March 1, 1950. However, the Bonn Government hopes that it will be legally possible for the industry itself to achieve a so-called "market order" (Marktordnung), or a distribution of fish landings between the various fishing ports which will minimize price fluctuations. But fisheries authorities do not believe that such a distribution can be achieved by allowing individual vessels complete freedom in selecting a discharging port. However, the plan to allow the fishing industry to form a body having widespread controls over individual firms has seemed to American officials to approach the legalization of conspiracy in restraint of trade, and consequently has met with American opposition.

A further reduction of taxes imposed on the fishing industry will be made on March 1, 1950, when the equalization-fund tax (Ausgleichsabgabe) will be abolished. This tax, which is levied to further fish production, fish consumption, and fish meal production, may be passed on to other levels of distribution. The tax varies from approximately \$0.48 to \$47.60 per metric ton, depending upon the type of fishery products and whether or not they are domestic or imported. Proceeds of the equalization-fund tax are held in separate equalization funds maintained in each of the major fishing ports. It is estimated that this tax brought about \$952,000 into the various funds. Although no complete report has been published to date of the use made of these funds, it is known that the funds have been used primarily to subsidize the older and less economic trawlers in order to prevent these vessels from being withdrawn completely from operation. The Bremerhaven fund has also been used to finance fisheries research projects, three of which are: free-swimming trawl (\$19,040), electro-fishing (\$14,280), and refrigerated hold for cutters (\$5,950).

Even though the equalization-fund tax imposed by the State will be abolished on March 1, 1950, it is expected that participants in the German fishing industry will continue to pool funds to promote domestic fish consumption. However, the era of subsidization of over-age and uneconomic trawlers will be over, and such trawlers will be retired as rapidly as the large trawlers now planned, under construction, or soon to be purchased, are put into operation.

NOTE: Values converted on the basis of the postdevaluation rate of exchange of 1 Western Deutsche mark equals 23.8 cents U. S.

TUNA CATCH, 1949: During 1949, 337,861 pounds of tuna (670 fish) were auctioned in German fishing ports for DM 258,003 (approximately \$44,700 at predevaluation rate of exchange). The number of tuna caught by German fishing vessels and eaten on board is not known but may bring the total catch up to 1,000 fish, a January 26 American consular dispatch from Bremerhaven states. This 1949 catch is the largest landed by German vessels in many years. In 1938, 535 fish, weighing 269,738 pounds, were landed.



GERMAN TRAWLER ALONGSIDE AUCTION HALL X, BREMERHAVEN, GERMANY. BASKETS AT SIDE ARE USED TO DISCHARGE FISH AND HOLD ABOUT 50 KILOGRAMS OF FISH.

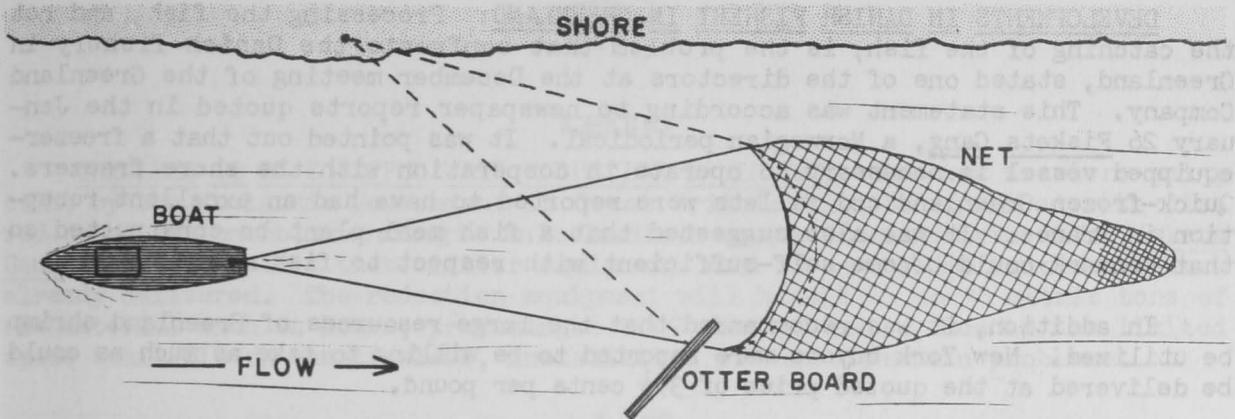
SUBSIDY FOR TRAWLERS: A subcommittee of the German Bundestag has approved a subsidy of DM 8,000,000 (approximately \$1,904,000 at postdevaluation rate of exchange) for German ocean-going ships using coal, among which are many fishing trawlers. This subsidy is intended to lower the cost of coal to German vessels by about DM 15.00 (\$3.57) per metric ton, which would reduce the cost of operating a typical German trawler about DM 150.00 (\$35.70) per day.

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NEW FISHING NET: A fishing net, chiefly used for catching eels, has been developed for use in rivers where traffic density had formerly prohibited the use of nets. The net can be set either from a ship or from land and can be pulled in and removed from the water in a few minutes, a January 20 American consular report from Bremen states.

The new net, sponsored by the Landesfischereiverband Weser-Ems, is actually based on a net invented shortly before the war by Hugo Koethke from Gorleben bei Danneberg, Elbeland, and the German patent on which is held by the Netzfabrik Kleiss, Hamburg-Altenwerder. For the first time this winter, the net is being used in the Weser, and good results are said to have been obtained.

The net can be used only where the current flow, tidal or otherwise, is sufficiently strong. It is in the form of a bag, with a 60-70 mm. (2.4-2.8 inches) mesh at the mouth and 20-25 mm. (.8-1.0 inch) mesh in the cod end. Depending upon river depth and current flow, the net opening varies between 8 x 8 meters (26 x 26 feet) and 12 x 12 meters (39 x 39 feet). The novel part about the gear is the steerable single otter board, weighing about 1 to 1.5 metric tons, which keeps the mouth of the net open. In spite of its weight, the board can be pulled in quickly either from a boat or from the shore since it is steerable.



NEW-TYPE NET FOR USE IN RIVERS WHERE TRAFFIC DENSITY HAD FORMERLY PROHIBITED THE USE OF NETS.

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OPERATION OF AMERICAN TRAWLERS IN GERMANY: All of the United States motor trawlers purchased by the U. S. Army for use in the German fisheries have proven very useful and profitable during the herring season, a February 6 American consular dispatch from Frankfort reports. However, it must yet be proven how these boats will stand the test in catching fresh fish on the more remote fishing grounds and in deeper waters.

The first of the twelve United States boats to fish under German charter was the Surf (started on August 3, 1948), and the last to be put in operation was the Swell (started on September 7, 1949). All of these boats ceased fishing on December 15, 1949, at the end of the herring run. Production for 93 trips totaled 17,656,830 pounds.

In the meantime, nine of the largest boats have had liver-extraction units installed, and eight of these are currently fishing for cod, with the remaining four scheduled to leave some time in February.

No boats have proven unsatisfactory as yet although the three smallest may have to be lengthened and liver-extraction units installed to be economical on distant fishing trips.

Experience during the herring and cod fishing season may economically justify the use of these vessels as part of the German fishing fleet. However, in view of present opportunities and the desirability of increasing imports of fish

and herring from trade-agreement countries, and the building, leasing, or purchasing of additional trawlers from agreement sources, it is believed that there is no objection to returning any or all of these vessels to the United States.



## Greenland

DEVELOPMENTS IN DANISH FISHERY IN GREENLAND: Processing the fish, and not the catching of the fish, is the problem that confronts the Danish fishery in Greenland, stated one of the directors at the December meeting of the Greenland Company. This statement was according to newspaper reports quoted in the January 26 Fiskets Gang, a Norwegian periodical. It was pointed out that a freezer-equipped vessel is necessary to operate in cooperation with the shore freezers. Quick-frozen Greenland cod fillets were reported to have had an excellent reception in France. It was also suggested that a fish meal plant be constructed so that Denmark could become self-sufficient with respect to fish meal.

In addition, it was recommended that the large resources of Greenland shrimp be utilized. New York buyers were reported to be willing to take as much as could be delivered at the quoted price of 39½ cents per pound.

If the necessary capital investment were made, it is believed that in 10 years the value of the Greenland fisheries would reach approximately \$14,500,000 annually.

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SHRIMP FISHERY: At present there is some commercial shrimp fishing in the fjords near Holsteinborg from the month of May until the end of September each year, states an American consular report dated January 21 from Copenhagen, Denmark.

Provisional investigations in the years 1946-49 established that there are large quantities of shrimp in the various fjords in the district of Julianehaab, as well as in Disco Bay in northern Greenland. Three large shrimp areas have been found in Disco Bay--one at the west side and two at the east side. The western area is about 25 miles in length and 4-6 miles in breadth, and each of the two eastern areas is 10 miles in length and 5-6 miles in breadth.

Commercial shrimp fishing near Holsteinsborg has shown that the yield per haul has varied from one year to another and from one period in the season to another. In this area, since the war, the shrimp stock has diminished considerably and smaller-sized shrimp are caught.

In the summer of 1949, no shrimp were found in the fjords near Holsteinsborg (attributed to the icy water encountered near the bottom), therefore, shrimp fishing has been carried on in the southeastern part of Disco Bay off Christianshaab, and the catch transported to the factory near Holsteinsborg for processing. Experimental trawlings in the areas of Disco Bay have established that the average catch per hour is 176-275 pounds, using an ordinary shrimp trawl.

The bottom of the shrimp grounds consists of clay without stones and the depth varies from 191 to 219 fathoms. Since the shrimp spawn about the middle of August, they are taken before as well as after spawning.

The average age of the shrimp varies from 3-5 years. From the experimental trawlings conducted in Disco Bay, it appears that generally the shrimp taken near the coast are younger and smaller than those taken farther offshore. The Greenland shrimp's biology is similar to those taken near Spitsbergen—during the first two years of its life the shrimp is not ripe; during the next two years, the shrimp acts like a ripe male and then changes its sex. The Greenland shrimp is similar to the northern shrimp found along the North American coast from Cape Cod to Nova Scotia.



### Iceland

TRAWLERS TO BE EQUIPPED WITH REDUCTION EQUIPMENT: Ten new trawlers being built by the Icelandic Government in Great Britain will be equipped with fish reduction equipment, according to an Icelandic newspaper report reprinted in Fiskets Gang. It is possible that similar equipment will be installed in the trawlers already delivered. The reduction equipment will handle 25 to 30 metric tons of raw material each 24 hours, producing 6 to 7 tons of meal. Due to the limited space available on the trawlers, installation presents certain problems.



### India

MARINE INVERTEBRATE FAUNA SURVEY: A three-man expedition will survey the waters of the Indian Ocean bordering peninsular India for marine invertebrate fauna (giant clams, mollusca, crustaceans, etc.), according to a January 30 American consular report, which quotes the January 24 Bombay Times of India.

Organized by the Bombay Natural History Society, the expedition is the first of its kind in India. It will leave Bombay for Madras in mid-February to survey the Krusadai Islands in the Gulf of Mannar, the shark beds off Rameshwaram coast, and the pearl fisheries of Tuticorin. An artist is accompanying the expedition to make color sketches of the marine fauna.



### Japan

FISHERIES LAW ENACTED: The Fisheries Law was enacted by the Diet November 29, 1949, the Natural Resources Section of SCAP reports in its Weekly Summary of December 3, 1949. The purpose of this law is to democratize Japanese fisheries, giving the working fisherman control over the source of his means of livelihood by placing the fishing rights in his hands. The law becomes effective on the date of its promulgation.

The new legislation eliminates absentee ownership of fisheries rights and excessive concentration of ownership. Bureaucratic government control is minimized.

This law presents solutions for fisheries rights problems, many of which at present are peculiar to Japan. It adapts democratic procedures to the unique fisheries rights system which evolved in Japan as a result of the crowded con-



ditions of coastal waters and the intensive search for food. As the world's population increases and its food supply decreases, similar problems can be expected to develop in other countries. Japan's experience with the fisheries rights program will serve as a guide to other nations in meeting such problems in the future.

REVIEW OF FISHERIES DURING 1949: A review of the Japanese fisheries during 1949 indicates considerable improvement, according to the January 14 Weekly Summary.

Fish production in 1949 reached about 7,000,000,000 pounds compared to less than 6,000,000,000 in 1948. This was made possible by the hard work of the Japanese fishermen and the increased quantities of cotton and manila fiber, fuel oil, and other supplies for Japanese fisheries which were paid for by the American people and turned over to the Japanese Government by SCAP.

The production of the Antarctic whaling fleets, which returned to Japan in April, totaled 57,350 metric tons of whale products and was the greatest since the surrender. Efficiency of operations, as shown by the quantity of oil and meat produced per whale, and the excellent record in observing international conventions, are the best performances ever recorded by Japanese whalers in the Antarctic.

On September 21, 1949, the Supreme Commander for the Allied Powers extended the authorized fishing area eastward to the 180th meridian, thus opening a large area to fishing operations. This action was in recognition of the good work of the Japanese Government and members of the fishing industry in controlling violations of the fishing area and establishing a program for correcting over-exploitation, particularly in the East China Sea.

Notable progress was made in the democratization of fisheries with the elimination of the old control associations and the establishment of democratic cooperatives. Passage on November 29 of the Fishing Rights Bill also contributed to democratization.

JAPANESE GOVERNMENT



Liberia

STATUS OF FISHERIES: Fishing in Liberia is still conducted on a primitive basis, states a January 26 American consular dispatch from Monrovia. Equipment consists of native-made canoes, home-made fishing nets, and raphia fishing lines. The fishing hooks are imported.

Each fishing canoe carries a complement of from two to four Kru or Fanti fishermen, depending on the size of the canoe. Fishing is done daily during the season (approximately 6 months) within a 30-mile belt off the coast. Seldom is the daily catch more than the local market can consume immediately. Thus, very little surplus is accumulated for the months when fishing cannot be carried on. At present, the small surplus occasionally occurring is either sun-dried or smoked over a crude Fanti oven and sold during the non-fishing season at exorbitant prices. The population during the non-fishing months must depend on imported fish (smoked and dried fish), coming principally from Norway and the United States.

There would seem to be a good opportunity for the establishment of a modern fishing operation in Liberia. A new cold storage plant in Monrovia, the capital city, can now supply ice to fishing boats, and also take the surplus catch for freezing.

It is estimated that there are 525 fishing canoes operating along the Liberian Coast with a complement of 1,200 fishermen, consisting mostly of members of the Fanti and Kru tribes. The Fantis immigrate into Liberia from the Gold Coast during the fishing season, returning to their native country at the end of the season. The annual catch will approximate a few hundred metric tons of the following varieties: bonies, barracuda, gruppa, cavalla, mullet, oysters, snapper, cassava, shark, cat, mackerel, sword, butternose, salmon, crawfish, salt-water turtle, shrimp, crabs, spiny lobster, clams, pike, and eel. All of the above are caught in sizable quantities and consumed locally.

No scientific study has yet been made of the potential fishery along the Liberian Coast. If properly explored, an important source of protein food might be developed.



## Mexico

APPROVES INTERNATIONAL FISHERY AGREEMENT: The Mexican Government's approval of the Convention for the establishment of an International Commission for the Scientific Investigation of Tuna, signed at Mexico City on January 25, 1949, by plenipotentiaries of the United States of America and the United Mexican States, was published in the Diario Oficial of February 16, 1950, according to a February 17 report from the American Embassy at Mexico City. The Decree approving the Convention was actually issued on December 30, 1949.

This Convention was ratified by President Truman on September 1, 1949, after the Senate on August 17 had previously unanimously advised and consented to the ratification of this fishery agreement.



## Norway

EXPERIMENTS WITH ARTIFICIAL DRYING OF FISH: Norwegian producers of salted dried fish are becoming increasingly interested in using specially built drying plants rather than the old sun-drying method for processing the fish, a January 28 report from the Norwegian Information Service states.

Several such plants are already in operation and the Kristiansund Industrial Laboratory is at present constructing an experimental plant for testing the effect of variations in the atmosphere, humidity and temperature in the drying process. The object is to ascertain if a better quality can be obtained through artificial drying, as drying plants offer a much larger capacity than the old method.

LEATHER FROM FISH SKIN: Tanned fish skin is reported to make an excellent leather for brief cases and bookbindings. The Norwegian Government's fish filleting plant in northern Norway is now disposing of its fish skins, mostly cod, to

a tanning plant nearby. The plant can turn out about one metric ton of fish skins a day.

Modern technical methods make it possible for the Norwegian fishing industry to make use of every particle of the fish in one way or another. Whatever fish is not consumed either in fresh, frozen, salted or canned form can be converted into meal for animal fodder and into oil for margarine and cosmetics. Fish waste is also being processed into plastic, while the scales on the herring are being used to make artificial pearls.

HERRING FACTORY SHIP: Norway's first floating herring factory ship (Clupea) officially went into production the early part of February, according to a February 11 report.

The 6,000-metric-ton vessel has a production capacity of up to 5,000 barrels a day, can receive 15,000 barrels of herring under deck and 5,000 barrels above deck (see Commercial Fisheries Review, January 1950, p. 49).

When in full operation, the ship will employ 100 men, of whom 75 can be accommodated on board. Powered by two steam engines of 2,600 h.p. each, the ship is capable of a speed of 16 knots.

PLASTIC FROM FISH WASTE:<sup>1/</sup> Production of plastic moulding powders from fish waste has been known to be theoretically possible for some time, but the practical realization of the idea was only recently attempted in Norway, according to a February 25 report.

By submitting fish protein to a special process, a Norwegian firm has now succeeded in producing a plastic moulding powder which is distinguished by moulding properties fully equal to those possessed by other moulding powders now on the market. It is a well-established fact that moulding compounds containing protein give the moulded articles an exceptionally fine finish and a very attractive appearance, in addition to the usual properties found in articles made from other moulding compounds. The powder can be made in opaque and transparent colors.

The Norwegian firm at Bergen has been able to install the necessary machinery. Since high quality raw material in desired quantities is easily obtainable at a low cost, the firm is able to offer its moulding powder at prices comparable with those demanded for the cheaper kinds of moulding material now on the market.

<sup>1/</sup>See Commercial Fisheries Review, December 1949, p. 47.

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| Norwegian Export to Poland     |                           |
|--------------------------------|---------------------------|
| Product                        | Quantity<br>(Metric tons) |
| Herring:                       |                           |
| Fresh and frozen .....         | 5,000                     |
| Salted .....                   | 13,000                    |
| Salted, Iceland .....          | 3,000                     |
| Fish meal .....                | 500                       |
| Liver Oil:                     |                           |
| Medicinal .....                | 400                       |
| Industrial .....               | 1,500                     |
| Refined fish and herring oil . | 4,000                     |
| Hardened whale oil .....       | 3,000                     |

#### NORWEGIAN-POLISH TRADE AGREEMENT:

A protocol containing an agreement for trade (which included fishery products) between Norway and Poland during 1950 was concluded at Oslo on December 21, 1949. The accompanying Payments Agreement signed at the same time states that settlement of payments of the two countries is to be made in Norwegian kroner. These agreements will expire December 31, 1950, unless previously cancelled by either party, according to a January 26 American consular report from Oslo.

Included among the Norwegian exports to Poland are the fishery products given in the table.

In addition, Norway is scheduled to ship to Poland \$42,000 worth of fish hooks.

Poland's contemplated exports do not include any fishery products.

**TRAWLING:** The Norwegian Government not only intends to liberalize regulations on trawling, but will also establish and finance a company to operate fish-freezing plants in northern Norway, states a February 2 American consular dispatch. This was brought out in the King's "Speech from the Throne" outlining the Government's economic policy for 1950-51 on the occasion of the opening of the 94th Storting on January 18. Extensive use of trawlers by Norway will represent a radical departure for Norway's fishing industry.

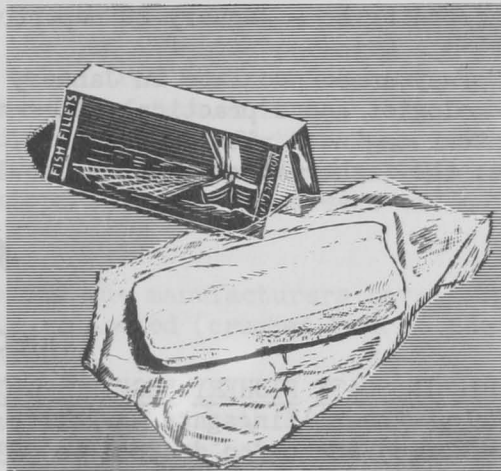
**EXPORTS OF FROZEN FILLETS:** Exports of frozen fillets to the United States this year will be more than double the amount shipped during 1949 (over 500 metric tons). Shipments of frozen fillets began in May 1949 when a test shipment of 150 metric tons was made to the United States. Italy was the largest purchaser of Norwegian frozen fillets during 1949 (5,000 metric tons), followed by Israel (2,500 tons).

**HERRING FISHERY:** As a result of increased demand and prices for herring meal, the production of salted herring has become relatively less profitable. Only 250,000 barrels of large herring and probably not more than 200,000 barrels of spring herring will be salted this year, states the Norwegian Directory of Fisheries. This will be less than half the quantity salted from last year's catch.

The Director of a herring oil factory at Bergen states that the potentialities of the herring oil and meal industry should be emphasized. The export price of Norwegian herring meal has increased from 700 kroner to 900 kroner per metric ton (\$140 to \$180 per metric ton at predevaluation rate of exchange). He also indicated that research should be continued on methods of fully recovering the available animal protein factor from herring.

**STOCKFISH:** The Stockfish Exporters' Association hope to meet 1950 export demand and have expanded production facilities accordingly. However, production is dependent on the Lofoten cod catch which scientists predict will not be large this year.

**EFFECTS OF DEVALUATION:** A survey published by the Norwegian Association of Canning Factories points out the effects of the devaluation of the Norwegian krone on exports of Norwegian fish to the United States. Inability to compete with Canadian prices, evident in the early part of 1949, is reported to have been at least temporarily overcome though production costs have increased, especially



ONE-POUND PACKAGE OF NORWEGIAN FROZEN FISH FILLETS DESTINED FOR THE SWISS OR FRENCH MARKET.

for canning, with prices within the industry showing a tendency to rise. However, the survey adds that even after the devaluation, American importers have continued to buy cautiously, maintaining small inventories.

NEW RESEARCH VESSEL: A modern marine research vessel, the G. O. Sars, was placed into service by the Norwegian Government this month. It cost approximately 4 million kroner (approximately \$560,000) and is equipped with Asdic apparatus, supplemented by two echo sounders to be used for locating fish schools.



## Pakistan

NORWAY TO AID PAKISTAN FISHERIES DEVELOPMENT: The Pakistan Government has asked the Norwegian Government for assistance in developing the Pakistan fisheries, according to a January 28 report from the Norwegian Information Service.

Norway announced late in January that it has decided to send a biologist, a technologist and a practical fisherman to Pakistan. The technologist would be a chemical engineer with knowledge of freezing, and fish meal and canning processes; the fisherman would have knowledge of all the main fishing methods.



## United Kingdom

BILLINGSGATE FISHERY RECEIPTS DECLINED IN 1949: Receipts of fishery products in 1949 at the Billingsgate Market (considered the largest wholesale fish market in the world) in London dropped to 383,988,400 pounds, compared with 427,897,400 pounds in 1948. This was a decline of 43,909,000 pounds from 1948 and 47,158,600 pounds less than in 1947, according to the January 21 issue of The Fishing News. Average monthly receipts totaled 33,069,000 pounds in 1949 as against 35,443,400 pounds in 1948 and 35,935,000 pounds in 1947.

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NEW ALUMINUM PACKAGE DEVELOPED IN GREAT BRITAIN SHOWING FRESH COMPACTLY-PACKED DRESSED FISH.

NEW ALUMINUM FISH PACKAGE DEVELOPED: Considerable interest has been displayed by Great Britain's fishery industry in the development of a new non-returnable aluminum package for fishery products. The new package, which has been thoroughly tested, is a very light, pure aluminum package. Made in various sizes, consumer packages hold from 1 to 3½ pounds of fishery products, and trade packages hold 7 and 14 pounds, according to the January 7 issue of Fish Trades Gazette, an English periodical.

Cost of the new package, it is claimed, is considerably less than an equivalent paper or cardboard container, and in the case of the 14-pound size, less than that of the ordinary wooden one-stone (14-pound) box in wide use.

Advantages listed for the package are:

1. Quicker and more efficient freezing.
2. Can be sealed virtually airtight.
3. Can be opened by piercing and running an ordinary knife round the lid and since the metal is soft, it does not leave cutting edges.
4. After the packing ice has disappeared, the contents are protected from deteriorating action from the outside air, and the contents remain at a much lower temperature for a longer period than with other types of packages.

The 14-pound aluminum package was tested by packing with wet fillets. Tests were carried out under scientific control and in controlled temperatures. Fillets of identical quality were packed with and without ice and placed in temperatures up to 70° F. for 24 hours and 48 hours, in the new aluminum packages and in the ordinary wooden boxes. In all cases, fish taken from the aluminum packages and tested anonymously (by number and without knowledge from which pack it had been taken) was pronounced to be in the best condition of all. Further tests were then carried out with fish supplied, packed, opened, and inspected by merchants. In every test, using wet and dry fillets and kippers, the results were exceedingly satisfactory.

Containers have a scrap recovery value and the manufacturers have proposed to the trade that where the packages could be collected (crushed in a wooden box) approximately one cent per pound would be paid.

In addition, for wholesale and retail deliveries in bulk a returnable aluminum liner has been developed which can be used in a light wooden frame with a hinged lid.

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SHARK FISHING FACTORY SHIP: The first shark fishing factory ship in the world is being built in a Grimsby shipyard, England, the December 1949 issue of The South African Shipping News and Fishing Industry Review reports. The vessel is a former four-masted schooner built in Denmark in 1920. It is being converted to conduct shark fishing off the coast of West Africa all the year round.

In the after section of the vessel will be five factories, one equipped to extract vitamin oil from the shark liver, another to process fish meal, an air-drying section to handle selected cuts of shark for making fillets (to be sold on the West African food market), a canning plant, and a refrigeration plant.



## International

FIRST LATIN AMERICAN CONGRESS OF OCEANOGRAPHY, MARINE BIOLOGY, AND FISHERIES: In order to set up a permanent Latin American Committee for Marine Research to encourage all countries to recognize, appreciate, and protect the resources of the sea, the First Latin American Congress of Marine Biology was called. The

purpose of the Congress is to establish and foster relations between similar institutions in the American Republics and to encourage the study of the utilization of products from the sea for food and industrial purposes. The Congress was held at Valparaiso and Vina Del Mar from October 10 to 15, 1949, according to a January 5 report from the American Embassy at Santiago, Chile.

Representatives from the Argentine Republic, Brazil, Chile, Ecuador, Dominican Republic, Mexico, Panama, Peru, and Uruguay attended.

The following five committees were formed:

1. General and Marine Biology.
2. Physical and Chemical Oceanography.
3. Zoology.
4. Fishing and Fishery Biology.
5. International Organization and Marine Biology Stations.

The Plenary Sessions of the Congress approved resolutions presented by the Fishing and Fishery Biology Committee on the following subjects:

1. Establishment of international zones in which neighboring countries shall be permitted to fish.
2. Control of unrestrained fishing by vessels from foreign countries.
3. Protection of exploitable marine resources and the intensification of the scientific study thereof.
4. Establishment of the name "Latin American Congresses of Oceanography, Marine Biology and Fisheries" as final.
5. Standardization of fishery statistics.

In addition, among the numerous other resolutions of general interest presented by the other committees and accepted by the Plenary Sessions were resolutions on the following subjects:

1. Need for international exchange of biological data gathered simultaneously in the various countries.
2. Revision of the methods of research in the sea, making them uniform for all oceanography, marine biology and fishery stations.
3. Preparation of a catalog of the marine fauna of Latin America.
4. Emphasizing the value of libraries specializing in oceanography, marine biology, and fishery, and the fostering of their development by requesting the aid of public funds.
5. Urgent need for the establishment of Marine Biology Stations in all of the Latin American countries.
6. Concentration of facilities for work and research in one Institute which will serve all the Stations.

7. Need to have the (respective) governments adopt adequate measures for the effective conservation of natural resources, protecting their common interests by means of regional agreements.
8. Approval of the statutes of the Standing Latin American Committee on Oceanography, Marine Biology and Fisheries.

The next Congress, which is to meet every three years, will be held at the City of Montevideo. The Uruguayan Committee is to propose the opening date. Place of holding the Congresses will be alternated between the Member Countries on the Atlantic and Pacific coasts. Extraordinary Congresses may be convened at the decision of the Standing Committee. The official languages will be the scientific languages, and Spanish and Portuguese; only the last two are working languages.

At this Congress, the Standing Latin American Committee on Oceanography, Marine Biology, and Fisheries was organized. The Marine Biology Station of the University of Chile in Montemar near Valparaiso, Chile, was designated as the permanent seat of the Standing Committee.

The Standing Committee, which shall consist of five members appointed by each Congress, shall have an international status, and shall be recognized by the adhering Governments and financed by them yearly by means of quotas proportionate to their population and the total volume of fishing done by them in the previous year. It shall meet at Montemar at least once a year, and will have a salaried Secretary-General.

#### Functions of the Standing Committee will be as follows:

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| <ol style="list-style-type: none"> <li>1. To stimulate, plan, and coordinate oceanographic, marine-biological and piscatorial research in the countries of Latin America.</li> <li>2. To standardize and disseminate working and research methods in that field in the countries of Latin America.</li> <li>3. To coordinate, organize, and publish the results obtained from oceanographic, marine-biological and piscatorial research in Latin America.</li> <li>4. To favor the establishment of common training stand-</li> </ol> | <ol style="list-style-type: none"> <li>ards for marine biologists, ichthyologists and fishing experts.</li> <li>5. To compile a file on information relative to oceanography, marine biology and fishing, and publish the minutes, documents, and papers of the Congresses.</li> <li>6. To facilitate the exchange of researchers, and of working and scientific materials among the various Latin American countries.</li> <li>7. To form commissions to study specific problems of common interest to various Latin American countries.</li> </ol> |
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In addition, the Congress appointed a chairman of the National Committee, which is to function in each Member Country, who was charged with the organization and operation of the Committee. Each National Committee shall consist of the same number of members as the Standing Committee and its Secretary shall be chosen by the respective Governments.

#### Functions of each National Committee are:

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| <ol style="list-style-type: none"> <li>1. Discharge in its country, the functions pertinent to the organization to which it belongs, and it shall fulfill or conduce to the fulfillment of the decisions of the Congress and of the Standing Committee.</li> <li>2. Answer the inquiries made by its Government in matters relative to oceanography, marine biology,</li> </ol> | <ol style="list-style-type: none"> <li>fishing and kindred subjects.</li> <li>3. Prepare, in the role of Organizing Committee, for the next Latin American Congress on Oceanography, Marine Biology and Fishery to be held in its country.</li> <li>4. Maintain constant relations with the Standing Committee and the other National Committees.</li> </ol> |
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During the initial organization stages, each National Committee was requested to give preferential attention to and act on the following:

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| <ol style="list-style-type: none"> <li>1. To seek the ratification by each country of the agreement creating the Standing Committee, and their financial support thereof.</li> <li>2. To coordinate and organize existing material resources and manpower.</li> <li>3. To organize or create at least one Marine</li> </ol> | <p>Biology Station in those countries where there is none.</p> <ol style="list-style-type: none"> <li>4. To promote the training of the necessary scientific personnel for marine research and exploitation, striving to place them in such financial circumstances as will enable them to devote themselves wholly to their task.</li> </ol> |
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All authority and rules governing all the activities of the Standing Latin American Committee and the National Committees emanate from the Latin American Congresses.

Special committees also may be appointed by the Congresses or by the Standing Committee for a definite purpose and shall report on their work to the body which appointed them.

Numerous papers were presented at this Congress, and the following are some of those directly related to fisheries:

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| <p>Scales and Biology of Fish</p> <p>Canning Industry</p> <p>Starfish and their Threat to the Industry</p> <p>Permeability of Woods</p> <p>Fish Breeding</p> <p>Sea Fishing in Brazil and Sao Paulo</p> <p>Biology of Fishing and Marine Biology Stations</p> <p>Useful Fish</p> | <p>Ichthyologic Population</p> <p>Marine Biologists and Fishery Biologists</p> <p>Mexican Fishery Resources</p> <p>The Need to Create an International Organization for the Study of Oceanography</p> <p>Marine Biology and Fisheries</p> <p>Territorial Waters and Cooperation of Ships of the Merchant Marines and Navies in these Studies</p> |
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