II.—STATISTICS OF THE MOST IMPORTANT FISHERIES OF THE NORTH ATLANTIC.

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The following statistics show the yield of the fisheries of the most important States on the North Atlantic Ocean:

1.—Norway.

During the twenty years from 1850 to 1870, the average annual amount of herring caught was 1,452,000,000 pounds, (avoirdupois,) representing a value of upward of \$2,200,000. The total export of herring in 1870 was valued at \$3,850,000. During the last few years the herring have mostly gone to the province of Nordland. In the bay of Malanger a comparatively large number of great herring were caught in 1871. From August to November, 270,600,000 pounds were caught; and in 1872, as many as 1,210,000,000 pounds. The herring fisheries south of the Stadt promontory have decreased. The cod-fisheries in Söndmöre were very considerable in 1871. Up to the 19th of March four millions of cod were caught, representing a value of \$330,000. The yield of the spring cod-fisheries in 1873 was nineteen and a half millions of fish, 110,000,000 pounds of liver, or at least 55,000,000 pounds of oil, and 39,600,000 pounds of roe, or two millions of fish more than the year before, or a half million more than the average annual yield of the last fourteen years. The total values have probably been the largest ever realized in the spring fisheries, and amounted to \$1,870,000; while in 1872 it was only \$1,386,000; and, on an average, \$1,375,000 annually during the period from 1859 to 1872. The mackerel fisheries, of course, did not yield so abundantly. In 1870 a million of mackerel, valued at \$14,300, were exported to England from Christiansand; and in 1871, 1,813,860 were exported from the same place, valued at \$63,202.70; while 100,000 were sold in the city and neighborhood. The salmon fishery in 1871 was likewise very productive. During the first half of the year, 177,685 pounds, valued at \$29,729.70, were exported. The yield of the Norwegian fisheries were larger in 1870 than in any previous Year. The fish exported were valued at \$10,833,909.90, or \$1,268,300 more than in 1859, and \$2,865,500 more than in 1866.

2.—SWEDEN.

According to the report of the superintendent of fisheries, Mr. von Yhlen, the value of the fisheries in 1869 was only \$894,947.90, while in

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1870 it amounted to \$917,079.90; for during the last years the herring has again appeared on the coast of Bohuslän. Large quantities were also caught in 1870 near Marstrand and Malmö, so that in Carlshamn alone 19,146,600 pounds were salted, while in 1872 there were only 11,000,000 pounds. The mackerel fishery on the coast of Bohuslän, which only continues one month, yielded in 1871 an income of from \$8,400 to \$11,200 in the district of Strömstadt alone. The salmon fisheries on the south coast near Carlscrona, adjacent to the Kullen promontory, and those in the rivers Dal and Klara, were likewise very productive. The export of fish from Gottenburg was very large in 1872. No less than 135,905 pounds of salmon packed in ice, 349,882 pounds of dried cod, and 5,500 pounds of anchovies were shipped.

3.—DENMARK.

The Danish fisheries are not so extensive, because the abundance of fish is not so great, and because the extent of coast is less. In 1869 the fisheries in the Ljimfjord yielded the following: the 2,459 persons employed caught fish valued at \$104,975, yielding a net income of \$79,312, and giving about \$32.50 to each fisherman. This was less than in 1868, when the total yield of fish was valued at \$112,370. The number of herring caught in the autumn of 1870, on the coasts of the island of Funen, was so large that they did not all find a market. In the Great Belt it was very small in 1872, twenty-eight boats from the town of Korsör catching about a million, and valued at \$6,445. In 1871 a large number of cod were caught on the western and eastern coasts of Jutland, of which about 353,100 pounds, valued at \$3,332.50, were exported.

4.—GERMANY.

The German fisheries are not so remunerative, since the extent of coast is small, and much of it consists of inland seas. The total net annual income is valued at \$1,500,000. Two fishing societies were organized in 1868, at Hamburg and Bremen, on the North Sea. The Hamburg North-Sea fishing society has worked with a capital of \$120,000. and their receipts during the first half of 1869 amounted to \$23,380.64, and during the same period in 1870 to only \$19,713.26, or \$3,667.38 less. In consequence of the poor fishing season and the foundering of a vessel, the society sustained a loss of \$4,281.46, and was obliged to close its office in 1871. The Bremen society met with similar disastrous experiences, and has also been dissolved. Great Britain exported to Germany, in 1871, 962,533,000 of herring, valued at \$3,436,837.50, which outlay ought to have been avoided. If, however, this importation of foreign fish is to be prevented, the fisheries must be carried on much more energetically than they have yet been. In Emden, a new herring-fishing society has been formed, which had every reason to be satisfied with its success in 1872, for in twenty-one trips they realized \$39,780. it should combine fishing in deep water with fishing on the ocean, the

probability is that it will be more successful than its predecessors. The fishermen operating from the mouth of the Elbe up to the boundary of Jutland, eatch, for the most part, bream, herring, and sturgeon. The sturgeon fishing has been particularly good during the last few years. In 1871, however, it was not so good in the river Eider. In 1873, so many plaice were caught that whole wagon-loads were sold for a trifle. number of cod and ray caught was likewise very large, while the herringfisheries on the east coast of Schleswig-Holstein were very poor. On the Mecklenburg coast, especially near Warnemünde, the herring fishery has been carried on for some years by societies. Warnemunde possesses four herring-nets. Of the three societies fishing east of that town, one netted \$750 in 1871, while another realized only half of that sum. The fishermen on the coast of Pommerania are very poor, for the fisheries yield but little. The fisheries on the coast of Eastern Prussia are richer, salmon and bream being caught in considerable quantites. In September of 1860 about 3,500 salmon were caught at the village of Russ, near Memel, the average weight of each being 33 pounds, while some ranged in weight from 821 pounds to 102 pounds.

5.—GREAT BRITAIN AND IRELAND.

Great Britain, undoubtedly, has larger fisheries than any other country in Europe. Cod are caught near Newfoundland; herring, pilchard, and sprats, off the British coasts; salmon, mackerel, plaice, and other fish are caught in Scotland and Ireland. McCullogh estimates the annual income of the British fisherics at \$20,000,000; others, at \$60,000,000. The increase of the cod-fisheries will be seen from the following figures: In 1790, it was 72,160,000 pounds; in 1814, 137,038,880 pounds, valued at \$12,458,080; in 1825, only 107,030,000 pounds; and in 1835, only 78,320,000 pounds, valued at \$1,780,000; while in 1848, it was again 110,000,000 pounds. The success of the mackerel fisheries in 1821 was entirely unexpected. The value of fish caught by sixteen boats, near Lowestoft, on June 30, was \$26,260; and the total value of fish caught on the coast of Suffolk amounted to about \$70,000. In 1827, no less than 10,521 persons were engaged in the pilchard fisheries on the coasts of Cornwall and Devonshire, and the capital employed in these fisheries was \$2,206,075. There are cases on record where 10,000 barrels were landed in a single day at one port, each barrel containing 2,500 fish. During the winter of 1829-30, the sprat fisheries were so successful that loads of from 1,000 to 1,500 bushels—costing from 12 to 16 cents a bushel— Were brought to Maidstone to be used as manure for the hop-fields. The herring fisheries are still more abundant, and were especially rich in 1871 on the south coast. In Lowestoft alone, more than 50,000,000 of fish were brought ashore in seven days. They sold, of course, at a very small price. On the Scotch coast, the fisheries were not so successful. The herring-fisheries in Stornoway proved a failure, and the result of the fisheries on the east coast was not much better. Notwithstanding

this, Great Britain exported to Germany, in 1871, 962,533,000 pounds, valued at \$3,272,750. In 1872, the fisheries proved very successful. The Fraserburg herring-fleet of six hundred boats caught in a single night upward of 10,000,000 of herring, valued at from \$75,000 to \$80,000. This is the largest haul on record in those parts. In no country of the world, in proportion to its size, are the salmon fisheries as valuable as in Great Britain. They are most extensive in Scotland, where from 10,000 to 12,000 salmon are caught annually. In 1820, 21,817 were caught; and from 5,000 to 6,000 are caught every summer in the Tweed alone. The Scotch salmon fisheries were particularly successful in 1870, many large and beautiful fish being taken.

6.—FRANCE.

As this country is very rich in natural products, and as the extent of its coast is small, the fisheries are not carried on to any great extent. But notwithstanding this, they yield a large income, the annual sum being estimated at no less than \$8,200,000. Herring, pilchard, and sardines are chiefly caught on the coasts and in the North Sea. Sardines and tunnies are caught in the Mediterranean, and cod near Newfoundland. In 1848, 110,000,000 pounds of cod were taken. The herring and pilchard fisheries are even more productive. Single boats from Dunkirk, Calais, Dieppe, and Boulogne, have caught as many as 28,000 in a single night. On the coasts of Provence and Languedoc, from 220,000 to 330,000 pounds of tunnies are frequently caught at a single haul. The finest sardiens are found near Antibes, Fréjus, and St. Tropez, and they are brought to the fair at Beaucaire in enormous quantities.

7.—NORTH AMERICA.

The following statistics will show sufficiently the importance of the North American fisheries. The fisheries near Newfoundland have yielded the following: Excluding those fish caught by the English and French, the Americans, in 1829, caught 195,030,000 pounds of cod. St. Johns, in 1842, exported cod-fish and oil valued at \$4,476,315. The Americans caught, in 1848, 165,000,000 pounds of cod. St. Johns also exported, in 1842, salmon valued at \$68,390, and herring estimated at \$35,595. Montreal exported in 1841 fish valued at from \$350,000 to \$400,000, and from Gaspé there were shipped from 14,300,000 pounds to 16,500,000 pounds. The New Brunswick fisheries annually yield from \$200,000 to \$300,000, and those of the United States in 1847 yielded \$17,069,262. The most important fisheries in the country last named, are the cod and mackerel. Boston, alone, in 1849, exported about 231,856 barrels of mackerel. The cod-fisheries of Greenland were also very successful in 187.