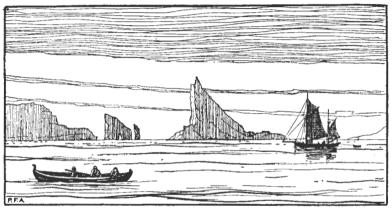
CHAPTER IX

Cod Fisheries

THERE is probably no other salt-water fish that has a greater value for commercial purposes than the common cod (*morrhua vulgaris*). It is found in the deep waters of all northern seas, but has never

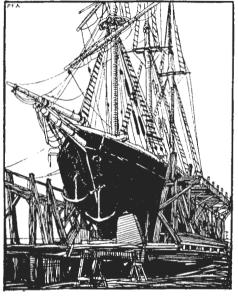


FISHING OFF THE FAROES

penetrated to the Mediterranean. It is an extremely voracious as well as an extremely prolific fish. A female cod may contain as many as eight million eggs, although not all these may be fertilized, nor all the young fish arrive at maturity. The cod spawns in mid-winter. All parts of the fish can be put to some useful purpose, and nothing need be wasted. Most of the cod caught is eaten fresh, but vast quantities are dried, salted, and exported, especially to Mediterranean countries, where it is a very popular article of food.

The most important cod fisheries at the present time are those of the Newfoundland Banks, Iceland, Lofoten Islands, and Finnemarken (Norway) and Greenland. But cod are caught almost anywhere in the northern and temperate seas of Europe and America, also in

the North Pacific, off Alaska. More cod is landed annually in the British Isles than any other fish, with the exception of the herring. Fifty years ago one of the most interesting sights at Grimsby and Harwich, the latter port still a great centre of fishing, were the cod-wells which were kept floating in the docks, and where the live fish were stored until they were



A TERRE-NEUVA ON THE SLIP AT ST-SERVAN

wanted for market. Each chest would hold between forty and a hundred cod, and the fish would remain alive for over a fortnight. There were always some four hundred of these chests in the Grimsby fish-dock at one time. Every day a certain number of fish would be taken out and sent by rail to London and other markets.

When the time arrives for preparing the fish for market a chest of cod is brought alongside a hulk kept for the purpose and moored in the dock near the market-place; tackles from a couple of davits are then hooked on to the handles,

and the chest is hoisted up till nearly clear of the water, which drains through the bottom and leaves the fish to dry. The cover is then taken off, and a man gets into the opening and takes out the fish, seizing them by the head and tail. The commotion among perhaps forty or fifty cod just out of the water is of course very great, and it is often no easy matter to get hold of them; but, one after the other, they are lifted out and thrown on the deck of the hulk, where they are taken in hand by another man, who performs the duties of executioner; he grasps the fish tightly behind the head with his left hand, holds it firmly on the deck, and giving a few heavy blows on the nose with a sharp bludgeon, kills it at once. With a large and slippery fish it is sometimes as much as can be done to hold it down with one hand on the slippery deck whilst giving it the coup de grâce, but the work is generally skilfully performed, and the dead fish rapidly accumulate in a large heap, whence they are taken on shore and packed in bulk in the railway-trucks waiting to receive them $\hat{1}$

In the old days before steam and refrigeration had been invented it was a great advantage to be able to keep fish fresh in this manner, for the smacks were never sure when they would be able to get back to port and deliver the catch. At the present time most of the cod landed in England and Scotland is kept frozen on board after being caught either by great lines or in otter trawls, together with other 'white fish.'

Throughout the Middle Ages in Europe salt cod was the staple dish in Lent and on all fast days prescribed by the Church, the menu being varied by salt herring; and until two hundred years ago most of the cod caught off the coast of Britain was salted, as, owing to absence of means of transport, it could not be kept fresh. The discovery of America led to the opening up

¹ E. W. Holdsworth, Deep-sea Fishing and Fishing-boats, p. 151.

of new cod fisheries in the Atlantic, the most important of which were those off the Newfoundland Banks. Frenchmen had been fishing for cod off the Banks for over four hundred years, perhaps even earlier than the so-called discovery of America by Columbus, for it is quite probable that Basque fishermen ventured across

the Atlantic before the sixteenth century. The Banks extend roughly three hundred miles in a south-east direction from the coast of Newfoundland toward the middle of the North Atlantic. The currents which pass over them provide food for the cod, which gather here in vast shoals during the summer months.

In another chapter I have described the annual blessing of the fishing-fleet that takes place at Saint-Malo, Fécamp, and other smaller

A Young Fécamp Fisherman

ports. A few days later and these sturdy old squarerigged craft, ranging between two and four hundred tons, have been towed out of port and started on their five to ten weeks' voyage across the Atlantic. At last they arrive on the fishing-grounds, where they anchor in about twenty to forty fathoms of water. As much as three hundred fathoms of heavy hemp cable is necessary to allow for the depth of water and the heavy seas often encountered off the Banks. Much extra labour is involved by this having frequently to be hove in to avoid fouling the anchor in calms or in shifting winds.

After leaving Saint-Malo, Saint-Servan, or Fécamp the fishing-fleet remains at sea for seven or eight months, the monotony of the life being broken only by a rare visit from the French hospital ship Sainte Jeanne d'Arc,

which acts as postman to the *terre-neuvas*, as well as giving what medical help she can to those who may be ill or who need care or treatment for accidents.



A TERRE-NEUVA LEAVING SAINT-MALO

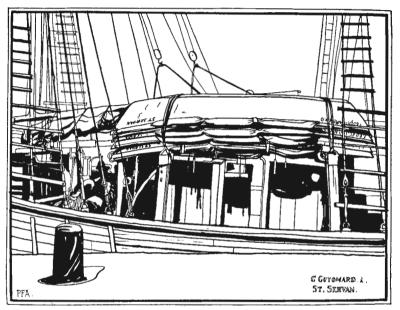
In my drawing you will see the flat - bottomed dories, primitive, fraillooking craft, but wonderful sea-boats. Each *terre-neuva* carries ten to fourteen, stowed away one inside the other on deck, as I have depicted. A dory's crew consists of two men, the *patron* and the *matelot* (or *mousse*), whose method of work I shall describe later.

Within recent years the number of sailing-vessels fitted out from the Breton and Norman ports has been greatly reduced owing to the introduction of steam-trawlers, most of which fish for cod off the Greenland coasts. They are wonderful vessels,

superior both as regards size and equipment to the steam-trawlers belonging to any other nation. Some of them are over one thousand tons, and carry a crew of fifty men.

On arriving on the Banks the first thing to be done is to lay in a supply of bait. A small shellfish known as *bulot* is used for this purpose at the beginning of

the season, other fish being employed later, especially caplin, or capalan, a small fish that comes down from the north in shoals, pursued by the cod. In their flight thousands of them are cast ashore and taken by the inhabitants of Newfoundland. The American and



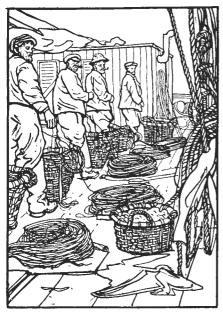
'DORIES' ON A TERRE-NEUVA

Canadian fishermen prefer salt herring or another species of shellfish which are found on the sandy bottoms of the Platier Bank.

On board a Breton *terre-neuva* the day's work begins as soon as it is dawn. "*Branle-bas! Branle-bas! Soulagez les toiles*," cries the watch as he stamps down the ladder into the foc's'le to call the hands. From every bunk a big, broad-shouldered fisherman, already dressed, and incredibly dirty, heaves himself out, and pulls on his stiffened oilskins and heavy boots. The

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mousse has already prepared a pot of black coffee in the galley, which he now brings along, pouring it into the tin mugs which are held out to him. This frugal meal is taken in silence, and in a few moments the men



BAITING COD-LINES

have stumbled up on deck into the cold, raw air. From the aftercabin another group of men make their way on deck, the captain, mate, and the patrons of the dories. A grummet is spliced into the stern and stem of each dory, and with a luff tackle they are hoisted up and dropped overboard with a splash. The gear-mast, sails, anchor, and lines are embarked, and when all is ready the boats shove off and, rowing

away, pick up the lines they set the night before. Each line has a hundred hooks on snoods (*tantis*), which are baited with putrefying shellfish (*bulots*) or capalan. The choice of bait is very important, for the more decomposed it is the better pleased is the cod, who has not got fastidious tastes. The lines are laid out starwise, like the spokes of a wheel. Each dory is responsible for its own lines, which bear a small special flag attached to the buoys which mark the end. Those dories whose lines lie at the leeward of the vessel hoist a sail and scud away down the wind, the others have

to pull against the wind and sea with their oars. On the return journey the positions are reversed, but great care has to be taken, for many lives have been lost when sailing a heavily laden dory in a seaway. The outer end of the line is drawn up first, so that the boat shall not be far from the ship when she has

all her gear and catch on board.

While the dories are away the ship is almost deserted. The *mousse* and the *novices* prepare the bait from the festering heap on the cabin-top, while the captain adds up his daily accounts, which



HAULING COD INTO A DORY

are kept with meticulous care, since the Breton *terre*neuvats are not paid on the share system, but receive a certain sum, generally two francs, for every fish they catch. Each dory works for herself, so that each of the two men who form her crew will get a hundred francs if she brings back a hundred cod in one day. This might be quite profitable if the weather were always fair and fish plentiful, but this does not always happen on the Banks. The wages of the average fisherman for the season of eight to ten months is from one hundred to one hundred and twenty pounds, although he may get less should he be unfortunate enough to be laid up by sickness, in which case he may even be in debt when he returns home to France, having earned nothing but his ' advance,' paid him before sailing.

After three or more hours the dories return to the ship, much to the delight of the Newfoundland dog, who is the pet on almost every *terre-neuva*,

and who possesses an extraordinary instinct for forecasting the weather, besides keeping a good look-out for any boat that may be missing. The catch is pitched on board, and then dinner is served, the usual dish being boiled cods' heads, eaten with a piece of dry biscuit, followed sometimes by a mug of hot coffee.

For the rest of the forenoon until the dories put to sea again the crew are employed in the long job of baiting the lines. Each man has his allotted position and own tools. If the *bulot*, or shellfish, are sufficiently 'ripe' the hook itself can be inserted in the shell, and the little fish comes out of itself, otherwise the shell has to be broken. Each man baits thirteen or fourteen lines of one hundred and thirty-five metres in length. Each snood is one metre eighty centimetres from the next. Each man baits one hundred hooks—*i.e.*, one thousand eight hundred for each dory. The work is carried on exposed to the wind and rain; often it is bitterly cold and hands get frozen.

On the modern steam-trawlers, which seem likely gradually to replace the old *voiliers* on the Newfoundland Banks, sooner or later, and which have been fishing off the more distant coast of Greenland during recent years, the system employed in the capture of the fish does not differ very much from that already described in the chapter dealing with the trawl fisheries of Europe. But the net is larger and stronger. The life and routine depend on the weather. If it is very stormy no fishing can be done; otherwise the work is hard and almost continuous, sometimes being carried on without a break for anything from twenty to even forty hours at a stretch, the trawl being shot seven or eight times a day.

The cod are cleaned and salted in much the same way as on a *voilier*, except that many modern details have been introduced that facilitate the work. You must step cautiously when you venture on board a *terre-neuva*. Her deck is a slimy mess of fish offal on

which you can easily slip if you are not careful, especially if she is rolling or pitching, as is generally the case when she is fishing off the Newfoundland Banks. The dories have



At Work on a Greenland Trawler

brought back their night's catch of fish, and all is now ready to start the day's work of splitting and salting the cod. The *ébrayeurs*, or splitters, have taken up their position before their benches, each man armed with a powerful hook with which he cuts open the fish. A wrench of the arm and the cod's belly is slit down and out fall the contents. It is astonishing to see what a cod can swallow. There is nothing his digestive organs seem incapable of dealing with, herrings, eels, caplins, to mention but a few fish, and even large shells are often found in its belly—sometimes the ends of fish-hooks !

Another row of men dressed in oilskins and heavy sea-boots is all ready for work around a wooden boxlike hold about three feet high, which is called the *parc*. First of all the splitters throw the fish into the *parc*, and then begins the job of the *mousse décolleur*,

one of the ship's boys, generally a lad of no more than sixteen or seventeen. He stands in the middle of this slithery, bleeding mass of cod, only his head and shoulders visible, for he has to bend down and pass up the fish to the *trancheurs*, and as the ship rolls from



CLEANING AND SALTING COD

side to side he is in constant danger of being smothered beneath this gory mass of fish. Before handing up the cod to the *trancheurs* the *mousse* has to *décoller* the fish *i.e.*, wrench off the head with a sharp

downward pressure, throwing the heads into a tub. (They are served up later for dinner or supper, for cods' heads are the regular dish that appears every day on the menu of a *terre-neuva*.) With a sharp incision with his left hand the *trancheur* opens the belly still more and removes the backbone, and the cod falls into a tub of water placed beneath the *parc*. Two boy *mousses* are at work, one of them standing up to his knees in the water manipulating a small pump which keeps water running over the fish. The other, called the *énocteur*, has to see that the fish are properly cleaned and that no blood remains on them. The cod are now slid down to the *saleurs* in the hold, who cover them with salt, arranging them in layers called *rains*.

And now the job is over. But so it goes on hour after hour, day after day, week after week, month after month, so long as the *terre-neuva* is fishing.

The men generally eat on deck when the weather permits, in the midst of carnage that suggests a slaughter-house more than anything else. There is no fixed time for meals on a terre-neuva. Everything depends on the fishing, and the work of gutting and salting the fish often continues until nearly midnight. The food is of a monotonous character, nearly always cods' heads, boiled up in a huge cauldron, from which each man extracts his share with thumb and sheathknife, depositing it on a tin plate or on the dirty surface of the table and devouring it with his fingers. A definite ration of much-watered wine, about half a pint, is served at meals, followed by a pannikin of coffee, and during the day a tot of brandy is distributed from time to time. There is no difference between dinner and supper. Breakfast consists merely of a mug of black coffee.

In the older sailing-vessels the crew's quarters in the fo'c'sle are indescribably dark and dirty, the only means of ventilation being through the door. Some twentyfive or more men are crowded together in a space all too small for them. And here they have to eat and sleep and live when not at work on deck. Their dark, dog-kennel-like bunks recall the lit-clos one finds in the Breton farm-houses with their wooden doors closed at night-time. In each bunk is a straw mattress, commonly called a grommeur. Sometimes the mattresses are filled with dried seaweed instead of straw, and it is softer to sleep on. Often the voiliers are so crowded that two men have to occupy a bunk together. Each man has a little cupboard in which he keeps his few personal possessions : letters from home, money, and sometimes a hair-brush, comb, and razor, the latter for use only when nearing port at the end of the fishing season. He

has two blankets, one or two thick shirts, woollen drawers, woollen socks, one or two spare oilskins, and perhaps even a pair of slippers : the latter a superfluous luxury, for while at sea on the Banks sea-boots are the only sort of footgear that is practical. All these articles



THREE TERRE-NEUVATS

have to be stowed away in the bunks, and when it is blowing too hard outside to fish you will generally find men inside there also. Normally the crew do not bother to take off any of their clothes when they turn in at night for their brief rest, just throwing themselves down without removing either oilskins or heavy boots. And when you remember the conditions in

which they have been working all day on deck you can dimly realize the state which their bunks get into after a week or two at sea! A stove kept at a roaring heat maintains the fo'c'sle at a furnace-like temperature, so that after the men have been there for a few moments in their damp clothes the atmosphere is suffocating and fetid to an unimaginable degree. A smoky lamp swings from the beams, but casts a feeble glimmer on the china image of the Blessed Virgin and Child, which occupies a place of honour in the fo'c'sle of every *terre-neuva*.

A table stands in the middle of the fo'c'sle, not much used, except for the purpose of writing letters. The state of the envelopes which reach France is sufficient to indicate the usual condition of the surface of

the table. It is perhaps better not to look down at the floor, for it might disgust the more squeamish of my readers. Sufficient to say that it is hardly ever cleaned up from the beginning of one voyage to another, and consequently you have a thick slime of sea-water and a slowly decomposing mess of fish-bones and offal, tobacco juice, the contents of half-empty soup-bowls, and a good many other things besides. The smell of these quarters on a terre-neuva is enough to turn even the most hardened seaman and make him beat a hasty retreat into the open air. A mousse is supposed to keep the place clean, but once on the Banks he has to work like all the rest of the crew, and the men have grown so accustomed to living in such conditions from their childhood that they cannot imagine things being any different.

The after-cabin where the captain, mate, and *patrons* live is not much more luxurious, but is kept cleaner than the fo'c'sle. It would be hard to find a fisherman of any other nation who would be prepared to spend several months of the year living in such quarters in these days. Conditions are far better on the Portuguese vessels fishing on the Banks, and as to the American and Canadian schooners, it is marvellous how their crews manage to keep them so clean and tidy, considering that their life is not so very different from that of the Breton crews from Saint-Malo or Cancale.

And how well they feed on these American schooners from Gloucester, Mass.! Three good meals a day, not to mention any number of 'mug-ups'—*i.e.*, mugs of tea or coffee, with a hunk of bread and cold meat, or a substantial bit of pie, whenever a man feels like it. '' And some of those huskies will put away four or five

mug-ups a day in addition to the full meals," writes Mr James B. Connolly in his fascinating book *Fishermen* of the Banks, which should be read by every one who is interested in fishermen and fishing ways.

On an American 'Banker' the cook has to attend to the cooking as well as keep the fo'c'sle clean, not to mention holding the painter while the first dory or two come alongside with their catch and the two dory men are pitching the fish on board. Besides which he has to lend a hand should the skipper need help while the boats are away.

The American schooners which fish off the Newfoundland Banks are sturdy little vessels of about thirty-five tons, with long bows and no bowsprits ('knockabout rig'). Each one carries eight dories amidships. Their crews each consist of a captain, cook, and sixteen men -i.e., two men for each dory.

But the American all-sail fishing-fleet will soon be no more than a memory of the past, for they are being supplanted by auxiliary or all-power craft.

When getting near the fishing-grounds the dories are made ready. Each boat carries four tubs of coiled and baited lines, nine lines to each tub, the tubs the size of a half-barrel, each line fifty fathoms long, so that every dory pays out some one thousand eight hundred fathoms of line—*i.e.*, over two miles. There are ninety hooks to each line—*i.e.*, three thousand two hundred hooks to each dory. Thus a vessel with eight dories sets sixteen miles of lines—some twenty-five thousand hooks ! The hooks are attached to the lines by means of snoods—' ganglings,' as they are termed locally—two feet long. The complete line is called a 'trawl' by the Gloucester fishermen. Herring or caplin are generally used as bait.

Arrived on the fishing-grounds, soundings are made to determine the depth and character of the bottom. The best fishing is obtained over a gravel bottom. The fishing is begun by setting a 'flying set'-i.e., the dories are hoisted to the vessel's rail and lowered into the sea astern of the vessel, and, when the right spot has been selected, let go at intervals until all are away, the two men who are to go in it balancing on the rail, watching their chance to drop safely into it. If they miss the dory, or if it capsizes as they drop into it, they will have to swim until a shipmate can gaff them in on board again. And, strange to say, few of the older Gloucester men can swim. Each dory rows off at right angles to the schooner and in the same direction, throwing out its trawl until it is all 'set.' The vessel then returns diagonally across the fishingground to its starting-point, picking up the dories. After some eight or ten hours the dories are dropped again, the men haul up their trawls, and take off fish. While the man in the bows hauls in the 'trawl' he snaps each fish backward into the dory with a wrist and forearm movement as it comes up to him. The other man coils the line back into the tub, at the same time keeping a look-out for the safety of the dory with an oar hanging in the 'becket '-i.e., a loop of rope in the stern of the boat. Then they row back to the schooner with their catch, the vessel anchors, and the cod is taken on board, 'gaffed,' as it is called. The fish are kept on deck in pounds to prevent them sliding about.

Then begins the long and tedious process of splitting, cleaning, and salting. The crew is divided into gangs of 'throaters,' 'gutters,' and 'splitters.' The throater grasps the fish by its head with his left hand, holds it

with its back on the edge of a tub, cuts the throat just behind the gills, makes a slit down the belly, and the head is then broken off by a downward pressure against the edge of the tub, and it is passed on to the gutter. This man seizes hold of the fish, opens its belly with his left hand, removes the liver for oil, and tears out the internal organs. The splitter next takes the cod and removes the backbone. The fish are then washed, all the blood being carefully removed, and passed down a canvas shoot into the hold, where they are salted and piled in 'ketches.' The cod are laid on their back alternately head and tail, the salt being sprinkled between the layers. A hundred pounds of fish require one and a half bushels of salt. The 'pickle' formed by the salt and fish-juices drains into the bottom of the hold and is then pumped overboard. As the pile of fish (' kench ') settles down more cod are added. The refuse of the fish on deck is thrown overboard.

On the Georges Bank, south-east of the Massachusetts coast, cod are also caught in large quantities by American fishermen, hand-lines from the deck of the ship being employed; about 60 per cent. of the fish are frozen, the remainder salted and dried.

It was Rudyard Kipling who, nearly forty years ago, popularized, if one may so describe it, the lives of the Gloucester fishermen of the Newfoundland Banks in his story *Captains Courageous*, and I cannot resist quoting his picturesque description of the men at work salting the cod on the deck of their schooner *We're Here*.

The shadow of the masts and rigging, with the neverfurled riding sail, rolled to and fro on the heaving deck in the moonlight; and the pile of fish by the stern shone like a dump of fluid silver. In the hold there were tramplings and rumblings where Disko Troop and Tom Platt moved among

the salt bins. Dan passed Harvey a pitchfork and led him to the inboard end of a rough table, where Uncle Salters was drumming impatiently with a knife-haft. A tub of salt water lay at his feet.

"You pitch to dad an' Tom Platt, down the hatch, and tak' keer Uncle Salters don't cut yer eye out," said Dan, swinging himself into the hold. "I'll pass salt below."

Penn and Michael stood knee-deep in the pen, flourishing drawn knives. Long Jack, a basket at his feet and mittens on his hands, faced Uncle Salters at the table and Harvey stared at the pitchfork and the tub.

"Hi!" shouted Manuel, stooping to the fish, and bringing one up with a finger in its eye. He laid it on the edge of the pen; the knife-blade glimmering with a sound of tearing, and the fish, slit from throat to vent, with a nick on either side of the neck, dropped at Long Jack's feet.

"Hi!" said Long Jack, with a scoop of his mittened hand. The cod's liver dropped in the basket. Another wrench and scoop sent the head and offal flying, and the empty fish slid across to Uncle Salters, who snorted fiercely. There was another sound of tearing, the backbone flew over the bulwarks, and the fish, headless, gutted, and open, splashed into the tub, sending the salt water into Harvey's astonished mouth. After the first yell the men were silent. The cod moved along as they were alive, and long ere Harvey had ceased wondering at the miraculous dexterity of it all, his tub was full.

"Pitch," grunted Uncle Salters, without turning his head, and Harvey pitched the fish by twos and threes down into the hatch.

"Hi! pitch 'em bunchy," shouted Dan. "Don't scatter! Uncle Salters is the best splitter in the fleet. Watch him, mind his hook!"

Indeed it looked as though the round uncle were cutting magazine pages against time. Manuel's body, cramped over from the hips, stayed like a statue, but his long arms grabbed the fish without ceasing. Little Penn toiled valiantly, but it was easy to see that he was weak. Once or twice Manuel

found time to help him without breaking the chain of supplies, and once Manuel howled because he had caught his finger in a Frenchman's hook. These hooks are made of soft metal to be re-bent after use; but the cod often get away with them and are hooked again elsewhere; and that is one of the reasons why Gloucester boats despise the Frenchmen.

Down below the rasping sound of rough salt rubbed on rough flesh sounded like the whirring of a grindstone—a steady undertone to the 'click-nick' of the knives in the pen, the wrench and 'scloop' of torn heads, dropped liver and flying offal; the 'caraah' of Uncle Salters' knife scooping away backbones; and the flap of wet opened bodies falling into the tub. . . .

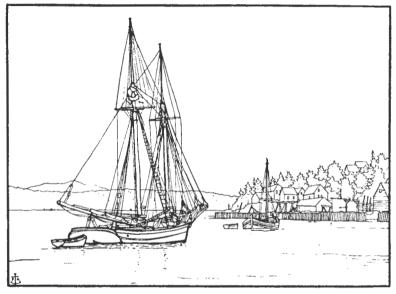
"Hi !" With a yell from Michael the work began again and never stopped until the pen was empty. . . .

"Boys clean up after dressin' down, an' first watch in calm weather is boys' watch on the We're Here." Dan sluiced the pen energetically, unshipped the table, set it to dry in the moonlight, ran the red knife blades through a wad of oakum, and began to sharpen them on a tiny grindstone, as Harvey threw offal and backbones overboard under his direction.

They are great seamen these Gloucester men, no finer seamen in the world, and no more skilful fishermen. They have been fishing for over three hundred years, curiously indifferent both as to glory and to money. Their vessels are bigger and safer than they were in the old days and they are helped by motor-power; but the dories still remain and require the same skill in handling. However, lest their rivals, the Bank fishermen of Nova Scotia, protest I have said too much about Gloucester, perhaps I had better pass on to Canada.

The cod fisheries of Canada, Newfoundland, and Labrador are quite as important as those of the United States ; in fact, Canada was first known to Europeans

as the "country of the cod." When John Cabot sailed across the Atlantic in 1479 and sighted what are now the Maritime Provinces, he called the land 'Bacalaos,' which is the Basque word for codfish. No more appropriate name could have been given to this hitherto



GASPÉ FISHING-SCHOONER

unknown continent, since off its shores Cabot found Basque ships from Spain and France engaged in codfishing.

The cod fisheries of the present day are generally known as the "Banks fisheries." The type of vessel employed is a stoutly built schooner, fitted with auxiliary power. They vary from seventy to one hundred and twenty-five tons, and carry a crew of fourteen to twenty-five men. On the Canadian schooners the long lines are called 'norman' lines, and consist of six hundred to twelve hundred fathoms, with hooks

attached to snoods three feet long and six feet apart. Otherwise the method of fishing varies but little from that in the Gloucester schooners, already described. The schooners remain at sea until a full cargo of cod has been obtained, sometimes being away from land



as long as two months. When the fish are landed they are dried in the sun and prepared for exportation.

Lunenburg, Nova Scotia, is the home port of the cod fishermen. Here you will find the Banks schooners being built, fitting out at the wharves, or lying at anchor in the harbour.

It has been a nursery of fishermen for over a hundred years, and is the home port of the *Blue Nose*, the champion of the International Fishermen's Races.

In the Province of Quebec cod-fishing is still carried on within ten or twenty miles of the land by means of small sail- or motor-craft. The older boats were clinkerbuilt, pointed at stem and stern. Their rigging consisted of two sprit-sails or gaff-sails.

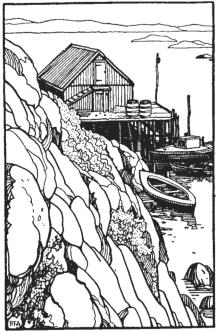
The inshore fishing is carried on with hand-lines, and the fishermen set out for the grounds soon after dawn. Each of the two men who man the boat has two lines when fishing in thirty or forty fathoms of water. When the water is less deep they use four lines each. Each line is finished with two hooks. The boats remain on the fishing-ground until late in the afternoon, after which they hasten back to port, so that the cod may

be split and salted before it has time to heat or get soft.

Seine-nets are used by the Quebec fishermen for catching caplin to bait the cod-lines ; two or three boats,

each of them manned by seven men called 'seiners,' cruise about the coast, looking out for shoals of this little fish.

The first cod cured on shore in Canada is caught on the Gaspé peninsula. The wooden buildings of the curing establishments form almost small villages. The actual method of curing the fish is much the same as that practised in Norway—*i.e.*, they are laid out in the sun and air to dry after they have been cleaned,



A FISHING VILLAGE IN NOVA SCOTIA

washed, and salted. When they are sufficiently dry they are pressed down with heavy stones.

I could write much more about the cod fisheries of Eastern Canada if space allowed. To quote a wellknown Canadian author, Frederick William Wallace:¹

The spirit which made the Maritimes still lives. The blood of the Vikings still runs strong in the fishermen, to be found wherever salt water will float a boat. There are hosts of towns and villages where fishing is everything; where the

¹ Introduction to Canada's Atlantic Provinces.

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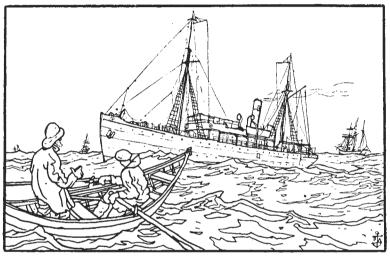
men are seamen to the marrow and skilled in the handling of vessels and boats in all the conditions of sea hazard that the old North Atlantic conjures. Sun-browned, sinewy and clear-eyed; a simple-living, direct-speaking folk, these fishermen are the best of their breed. Their adventurous business they take as a matter of course, yet it is replete with romance —the romance of lives that are maintained by pitting mind and muscle against wind, tide and fog, and the great gamble of the fisheries.

One-third of the native fishermen in Newfoundland are engaged in cod-fishing, and over a thousand schooners are fitted out for this purpose. On the Labrador coast cod are caught with lines, traps, and gill-nets.

No chapter dealing with the cod fisheries of the Newfoundland Banks would be complete without some reference to the wonderful work carried on by the Société des Œuvres de Mer, which ever since 1894 has maintained one or more hospital ships cruising on the Banks in order to minister to the bodily and spiritual needs of the fishermen. Since the War only one hospital ship has been retained, owing to the heavy increase in the upkeep of such vessels.

The Sainte Jeanne d'Arc leaves Havre every year about the first week in April, crossing to Cardiff to fill her bunkers with Welsh coal. She then sets her course westward toward Newfoundland. The Atlantic is always liable to sudden and violent storms at this period of the year, and on nearing the Banks northeasterly gales are likely to be experienced, varied by dense fogs. Violent squalls, showers of *poudrin—i.e.*, frozen snow or hail—succeed each other in rapid succession. The temperature drops to zero, and the decks and rigging may be covered with ice as the salt water freezes. Then as the spring advances the cold becomes

less intense, and storms give way to long days of damp, clammy fog that blots out everything from within a few yards of the ship. Thanks to the invention of wireless telegraphy, it is now possible to locate the trawlers and *voiliers* that are fishing off the Banks in a way that was not dreamed of twenty years ago, most



THE "SAINTE JEANNE D'ARC" ON THE NEWFOUNDLAND BANKS

of the vessels now being fitted with radio. So the work of the hospital ship is rendered much easier than it used to be. A *terre-neuva* has only to send out an SOS message that she has a sick man on board, or that help is needed, and the *Sainte Jeanne d'Arc* can reach her within a comparatively short time.

The hospital ship cruises about on the Banks throughout the summer, varying her routine only by occasional trips to Sydney, N.S., for coal, or visits to Saint-Pierre-Miquelon, the French islands off Newfoundland, where the Société des Œuvres de Mer also maintains a wellorganized institute for the fishermen on shore. But

the chief work of this vessel, apart from being a floating hospital, is the distribution and collection of letters and mails from the *terre-neuvas*, the chaplain acting as postman. With the exception of the hospital ships belonging to the National Mission to Deep Sea Fishermen cruising on the North Sea and around the coasts of Great Britain there are no other vessels of this type in the world, so I am glad to have the opportunity to mention the *Sainte Jeanne d'Arc* and her unique mission on the North Atlantic, where she ministers not only to the French fishermen, but to those of every other nationality to be found on the Banks.

Until the year 1904, when the passing of the 'Bait Bill' finally did away with certain fishing privileges held by the French since the Treaty of Utrecht in 1713, there had always been difficulties between the French fishermen who settled on the coast of Newfoundland during the cod-fishing season and the inhabitants of this British Colony. But I have no space in which to deal with the long story of this bitter struggle and racial antagonism, which after more than two centuries has now been settled by the French fishermen being obliged to confine themselves to their own tiny islands of Saint-Pierre-Miquelon, all that remains to France of its once vast colonies in North America.

If you want to know something about the life of the French fishermen off Iceland in the old days you can do nothing better than read Pierre Loti's novel *Pêcheur d'Islande*, which gives a wonderful picture of the conditions on the *goélettes*, of which not more than twenty or thirty now remain.

Just as at Saint-Malo and Fécamp, so at Paimpol, always the chief port for fitting out for Iceland, there is a blessing of the fishing-fleet before the ships leave

home in the spring. But the ceremony has been shorn of much of its splendour in these days, although it still retains something of its note of tragedy. Fifty years ago each vessel was blessed in turn before leaving the

harbour, and they were all towed out on the same day. On the quays a wonderful shrine is erected for the image of Notre-Dame de Bon-Voyage, brought down from the parish church. She "looks down upon those for whom the season would be profitable and upon those who would never return," to quote Pêcheur d'Islande. After the blessing the lock-gates opened and



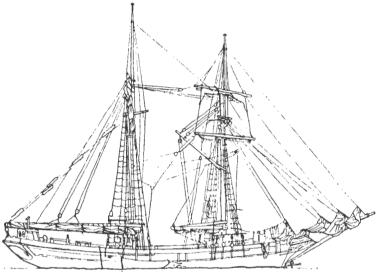
FÉCAMP FISHERMEN

the *goélettes* passed out one by one, until none remained. Then they were towed out to sea, and disappeared from view on the far horizon.

The Iceland fisheries are carried on all round the coast of this island, but owing to the great depth of the water the vessels cannot anchor as they do on the Newfoundland Banks, and are always under sail or steam. The season starts in February, and the vessels return home in the early autumn. A much smaller type of sailing-vessel is used in the French Iceland fisheries than those employed on the Newfoundland Banks. They are either two-masted schooners (goélelles), with square

topsails on the fore and roller reefing-gear, or *dundees* (ketches). Few of them are more than one hundred and eighty tons, and they carry a crew of twenty-five.

As I have stated already, the Iceland fishermen do not fish from dories, but on board. Specially strong



AN ICELAND SCHOONER

lines, heavily weighted to keep them near the bottom, are used, with any sort of bait that may be at hand, either fish or sea-bird. Each man holds his line, his position being marked by a notch on the bulwarks. It is an exhausting job to control this weighted line, and although the men wear gloves to protect their hands these often get cracked when hauling the lines, cutting through the skin to the bone. Then when the cod is being cleaned the coarse brine gets into the wounds, causing intense pain. While the lines are shot the goélette sails on the same tack in order to give the men more freedom of action.

On the steam-trawlers fishing for cod off Iceland there is no special difference in the method of working, except that owing to the heavy seas encountered in this part of the North Atlantic it is often necessary for

the vessel to steam back to port, or to get into the shelter of some headland or bay, before the hands can start cleaning and salting the fish. During the summer months the cod is taken back to France on carriers called *chasseurs*.

Fogs are not so frequent off Iceland as on the Newfoundland Banks, and in some ways the fishing is not so laborious, the chief reason being that dories are not used. Then both



An Iceland Fisherman

the crews of the steam-trawlers as well as *goélettes* have a chance to get on shore from time to time either at Reykjavik or Faskrudsfjord. The Iceland fishermen are as conservative as any others, and nothing will induce them to alter their habitual routine, no matter if no fish is caught.

At one time the Société des Œuvres de Mer used to maintain a hospital ship off Iceland. This has been given up since the War, but hospitals for the French fishermen are still kept open at several places on shore.

Fishing off Iceland there are also a vast number of local boats of every description, varying from small open sailing-boats to the latest type of steam-trawler.

In fact, until lately nearly half the codfish caught off Iceland has been taken by large Iceland trawlers and landed at Reykjavik and other ports, where it is cleaned and salted in a very up-to-date manner. It is possible, however, that the Iceland cod fisheries may have to undergo considerable modification in the near future. The consuming markets become flooded with unsold klipfish, while the demand for frozen cod increases. In recent years the cod has held so close in to the coast that it is needless expense to send out large craft to catch them. Small steam- or motorvessels are much more effective—cheaper to run, and able to land their catches daily, after which it can be frozen and dispatched to all parts of Europe. So the golden days of the trawler may be passing?

Another great centre for cod-fishing is the Faroe Islands. If you go to Syderö you will be shown the whole process of landing, cleaning, and curing of the Faroe cod, called klipfish, which is exported to all parts of Southern Europe. Syderö is the most southerly of these remote and seldom-visited islands, and as one approaches it by the sea the rocky shore appears to be white with the fish which are lying in the open air to dry. Get one of the local fishermen to take you out in his schooner. The gear used is simple : a line, two hooks, and fish, or the liver of some sea-bird, as bait. Arrived at the fishing-ground, the boat anchors, and the lines are shot. Just as on the French terre-neuva, the fish are gutted and cleaned at once. On her return to port the schooners unload their fish, the work being done by women, old men, and children. The Faroese follow the same method of curing cod as has been done for generations, and it will be difficult to make them change. There is seldom more than sixty days'

sunshine in the year in these islands, yet the cod is laid out on the rocks by the shore, where it remains sometimes as long as two months before being ready for exportation. The men, women, and children watch over the fish with the greatest care possible. There is always some one on the watch to frighten away the birds from the cod. An old man is appointed to keep an eye on the weather; the moment he sees a squall coming on he beats a gong, and everybody rushes down to the shore to cover the fish with canvas! Sometimes this process has to be repeated six or seven times in one day, and nobody in the Faroes is exempt from the duty of rescuing the klipfish from rain or a storm.

Norway, owing to the natural conditions prevailing along the coast, has exceptional advantages in connexion with its important cod fisheries which can be traced back for over a thousand years. Its broken coast-line, penetrated by deep and narrow fjords, its almost continuous belt of islands, affording protection against seas and gales, have made possible the establishment of fish-curing stations within a very short distance of the actual fishing-grounds.

The chief centre of the Norwegian cod fisheries is the Lofoten Islands, lying within the Arctic Circle. They extend along the coast for a distance of about one hundred and forty miles. Seen from the mainland, the Lofotens have the appearance of a jagged wall of mountain rising out of the sea. In winter their summits are covered with snow, and gales of terrific fury beat against their steep cliffs.

Somewhere about the middle of February the cod begin to leave the Atlantic and make for the shallower waters off the Norwegian coast in order to spawn. The result is concentration of fish on certain points of the

coast, thus allowing for an intensive inshore fishing. The cod travel in enormous shoals, sometimes one hundred and fifty feet thick, and packed so closely that a sounding-lead will not pass through them. Fishermen from all parts of Norway flock to the Lofoten Isles, sometimes as many as 40,000 being here during the



A NORWEGIAN FISHING VILLAGE

season, with over 9000 boats. An average of sixty million cod are landed annually in Norway, sometimes as many as a hundred million! The cod fisheries are under the direct control of the Government, and are conducted on a definite plan. They start in January and end in April. No boat may leave the harbour in the morning until a flag has been hoisted.

The thousands of fishermen who make their temporary homes on the Lofoten Islands every spring are accommodated in log huts, *rorboder*, as they are called, each one housing from twenty to twenty-five men. Their bunks are arranged like those in a ship's fo'c'sle,

two or three men sleeping in the same bunk. These huts are often very dirty, as also are the surroundings, where fish offal and cods' heads lie rotting in the sun, not to mention barrels of decomposing cods' livers, roes, and tongues !

There are three methods of fishing off the Lofoten Islands: nets (garn), long lines (lin), hand-lines (dyp-sagn), not much used in these days.

The older boats in use retain many of the characteristic features of the old Norse longships. They are generally clinker-built, double-ended, high-sheered, and square-rigged.

Lieut.-Commander H. Warington Smyth writes : 1

The Norse fisherman of to-day retains the same faith in his open boat as did his forefathers, and as that plucky sailor Bjorn sang of old :

> "Salt is in my eyes, They are bathed; My strong arms fail, My eyelids are smarting,"

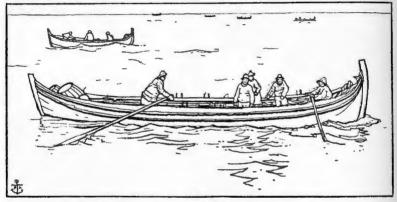
so the herring- and cod-fishers weather the northern gales with no shelter but the weather gunwale of their open boat, and with smarting eyes and tired arms bail for their lives with the same cheery spirit.

The secret of the Nordland boat probably lies in the extreme lightness of the ends, which makes her lively in a sea-way, and in her handiness under oars; for shallow as she is, and narrow in the beam, she has none of the qualities of a sturdy-going sea boat. Her life in bad weather depends on the handling she receives. The most feminine of boats, she demands a real man for her helmsman, who knows his own mind and has a strong hand to effect his purpose. Capricious, quick, seemingly, to betray her charge, she yet loves to be ruled strongly. It is only this she wants; and once she finds she has her master, she will take turn through

¹ Mast and Sail in Europe and Asia, p. 48.

the wildest winter night in safety, yet not without throwing more water than is either seemly or safe.

The larger boats range from thirty-five to sixty feet in length, with a beam from seven to ten feet. A small cabin is built in aft by decking in the stern and raising the gunwale, affording accommodation for the crew of six to ten men. Even the large boats still retain the



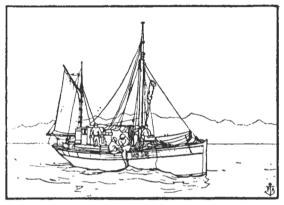
COD-FISHING OFF THE LOFOTEN ISLANDS

long tiller and yoke. The rig is simplicity itself : a single pole-mast stepped nearly midships, on which is set an ordinary square-sail. These Northland boats also carry a small topsail. The planks of which they are built are as much as sixteen inches wide in some parts, the sides have a great flare, the ends a tremendous sheer.

The smaller boats are quite open, thirty to thirtyfive feet long, with a six-foot beam. But within recent years the older type of Northland boat has been largely replaced by a more up-to-date ketch-rigged motor-craft.

Thirty or forty years ago, before auxiliary motors had been introduced, it was a marvellous sight to watch the departure of the fishing-fleet from Henningsvaer,

or any other of the Lofoten cod-fishing stations. On an April morning about five o'clock the *lensmand* would haul up a flag on shore, and suddenly the intense quietness of the scene, broken only by the shrill cry of gulls, was roused by a heaving, booming sound as several thousand oars dipped into the water simultaneously, working with an astonishing regularity until the boats



A NORWEGIAN MOTOR FISHING-BOAT

gradually scattered. The fishing-grounds are about ten miles off as a rule, but depend on where the shoals of cod are to be found at the moment. Every fisherman has his own buoys, marked in a distinct manner, thus helping him to locate the nets shot the day before. Having arrived at these, the line is gradually hauled in until the net is alongside. Two men drag the sides of the net over the gunwale; two others shake it out and arrange it in the well of the boat, while another man hooks the cod and throws it into the boat. There are some twenty nets, tied together in fours, each net twenty fathoms long and two to three in depth, having a mesh of about three inches. Along the surface of the nets are secured glass balls to keep them afloat, while

the bottom is weighted by stones. Four buoys mark the position of the nets in the water.

The line-fishermen generally use a smaller type of boat, with crews of three or four men. Each boat carries about twenty-four lines, varying from fifteen hundred



NORWEGIAN COD FISHERMEN

to seventeen hundred yardsin length, with as many as fifteen hundred hooks. The position of the lines is marked by buoys. Sometimes the lines get caught in nets and have to be cut and hauled back

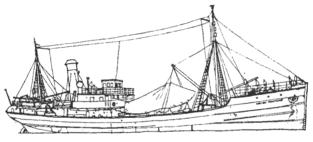
into the boat, the hooks being lost.

A contemporary writer thus describes the scene as it used to be nearly fifty years ago :

At ten o'clock, one by one, the boats came back, and by noon the whole fleet was in, with an immense number of fish. Life had returned to Henningsvaer. Boats moved to and fro, going from vessel to vessel, the fishermen trying to make the best bargains they could, and everybody was busy. On the decks were piled the fish just caught ; these were cleaned on board, washed, salted, and laid in the hold one on top of the other. These vessels would, after the fishing season, go home to some solitary farm by the fjord, and their cargo would be dried on the rocks. . . . Many boats landed their loads along the shore, where men were busy preparing the fish. Those engaged in this work were dressed in large pantaloons, aprons, and cuffs of leather. One man cut off the heads; another took out the intestines, and cast them on one side; others put the heads, the livers, and the roes by themselves; the latter were carefully put in barrels and salted—

a barrel containing the ovum of three hundred fish, sent to France or Italy, where they are used for catching sardines. The livers were put in barrels by themselves, sold to the merchants, and kept till rotten, when cod-liver oil is made from them. Two barrels of fat livers are said to yield a barrel of brown oil. The tongues were salted, and kept by the fishermen for their own use. The heads were scattered on the rocks to dry, to be used to feed the cattle at home, or to be sold with the bones for fish manure.¹

There are two kinds of dried Norwegian cod : klipfisk-*i.e.*, fish which is gutted, opened flat, salted, and laid



A GREENLAND STEAM-TRAWLER FROM SAINT-MALO

out on the rocks to dry—and *torfisk*—fish tied up in pairs, after having been gutted, and hung on wooden frames to dry.

Cod-liver oil is prepared in the following manner. The good livers are separated from the bad; the fresh and healthy have a whitish colour, the lean are red, the diseased livers green. The good livers are then put in a tank, washed in warm water, and placed over wirenetting, so that the water can run away. Next they are placed in large vessels fitted with steam-heated jackets, and allowed to boil slowly for about eight hours. The oil is then filtered through cotton and put in soldered tins to be sent to factories for still further

¹ P. du Chaillu, The Land of the Midnight Sun.

refining. The roes are then subjected to still greater heat for the extraction of oil for industrial purposes, much of it being used for fertilizing.

The old-fashioned method was to put the livers into large wooden vats, where, subjected to direct heat, the livers burst and the oil exuded.

There are other cod fisheries in Norway besides those of the Lofoten Isles; those on the north-west of Romsdalen and Bergen are carried on a little later in the year; and there are the very important Finnemarken fisheries from April to June. These are centred at Hammerfest, the most northerly town in the world. This fishing begins when the shoals of caplin have arrived, the cod preying on this little fish.

A word or two must be said about the Greenland cod fisheries, which seem likely to develop very considerably during the next few years. For some time past both French and British trawlers have been taking enormous quantities of cod in these waters, where at one time they were never found. Greenland cod do not seem to migrate like most other species of the fish, and if the winter months continue to be as mild as they have been for some time, owing to the alteration in the polar current, Greenland may yet become the greatest centre of cod fishery.