CHAPTER VI

Trawl-fishing

ISTORICAL NOTES. Trawling is the most important method by which fish is captured for commercial purposes at the present time. Over 50 per cent. of the fish landed in Great Britain are taken in this way. The word 'trawl' is derived from trailing



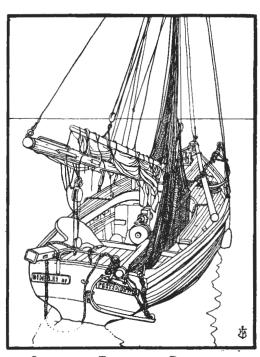
THE BREEZE FRESHENS

or dragging, for a trawl-net is dragged along the bottom of the sea. It is so constructed as to capture those fish which keep on or near the ground—i.e., 'demersal' fish, both round and flat—cod, haddock, plaice. The modern trawl-net has been evolved from various primitive types of drag-nets, many of which are still in use in certain parts of Europe—e.g., the aissaugue of the Mediterranean, the gangui of Languedoc, the chalut of Poitou, and the primitive bag-like trawl found on the coast of Brittany until comparatively recently. Perhaps the earliest form of trawl still in use to-day is the broad-ended bag found off some parts of the Spanish

coast. Two vessels are required to keep open the mouth of the net. They sail at a certain distance apart, towing the net between them.

Another primitive kind of trawl was employed off the

south and west of Ireland until recently to which the name 'hammer' or 'pole' trawl has been given. It is so called on account of the 'hammer'-i.e., a stout flattened bar of iron, having a wooden upright in the centre to which the end of the net is fastened. These hammers. one in front of each of the wings, serve to keep the ground-rope at the bottom, and they

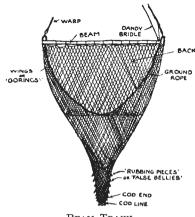


SMALL-BEAM TRAWLER AT PORTSMOUTH

move over the ground in the same way as the iron 'heads' in the beam which I will describe later.

BEAM TRAWL. Until the invention of the modern 'otter' trawl about fifty years ago—about the same time as the building of the first steam-trawler—the so-called 'beam trawl' was in almost general use among fishermen of Northern Europe. British fishermen have always claimed that the beam trawl was invented at Brixham, but as an almost similar type of net has been

used in France, Belgium, Holland, and Germany for an equally long time it is doubtful if the Devonshire

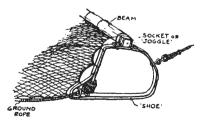


BEAM TRAWL

fishermen can claim this honour. The beam trawl may be best described as a triangular, flat, purseshaped net, with its mouth kept open by a horizontal wooden beam, raised a short distance from the ground by means of two iron supports, or 'heads,' the upper part of the mouth being fastened to the beam, and the under

portion dragging on the ground as the net is towed over the bottom of the sea. In some of the larger smacks this beam is forty-five to forty-eight feet in length. Its circumference is two to two and a half feet. The beam of a Brixham 'Mumble Bee'—i.e., a small smack—is thirty-eight feet long. The beams themselves are generally made of elm, ash, or beech. As it is not easy to find a straight piece of timber of

sufficient length and size, two or more pieces of wood are scarved together, the points secured by iron bands. The trawl 'heads,' or 'irons,' are made of wrought-iron, and weigh about two hundredweight.



TRAWL HEAD

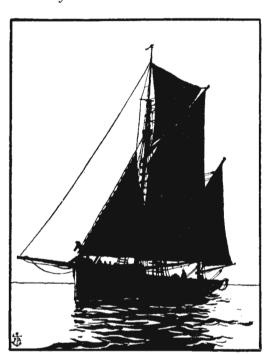
The lower part, or 'shoe,' which is constantly rubbing over the ground, is made of double thickness. The width of an ordinary 'head' is three to four and a

half feet. The actual shape of these beam-trawl heads varies considerably according to the locality. The old Yarmouth smacks used a much shorter beam than those employed by the Brixham and Grimsby fishermen. They maintained that when fishing on the Dogger Bank the large-mouthed nets were liable to close up.

AT SEA ON A BRIXHAM SMACK. It is many years ago now that I had my first experience of deep-sea trawling, and it could not have been under more ideal conditions. In those days I was living on the isle of Caldey, off the coast of Pembrokeshire. The waters of the Bristol Channel were still regarded as profitable fishing-grounds by the Brixham men, and every summer we used to see quite a number of their smacks with their brown and ochre sails. Most of them landed their catch at Swansea, but sometimes they would put in to Tenby. Very often they spent the week-end under the lee of Caldey Island, the crew coming ashore for fresh water, vegetables, and bread, which they were always glad to get in exchange for a basket or two of fish. In this way I got to know many of their skippers and crews. The summer fishing season was drawing to a close; it was mid-September, and one Sunday afternoon I was talking to the skipper of one of two trawlers anchored off the island, questioning him about his life and the methods of fishing. "Would you care to come on board next Saturday?" he suddenly asked me. shall be putting in to Caldey again, and we could take you back to Brixham with us. 'Twould be the best way for you to learn what trawling is. 'Tis likely you'd enjoy the trip if there's good weather. We shall do a bit of fishing off Land's End."

And so six days later I found myself being paddled out by two blue-jerseyed fishermen in heavy sea-boots

to the trawler *Fiery Cross* that lay anchored in Priory Bay. Half an hour later the sails had been hoisted, the anchor weighed, and we were moving away in a southwesterly direction across the Bristol Channel.



A BRIXHAM TRAWLER

The Fiery Cross was a typical Brixham smack. and had been built at Portleven in 1905. For some vears she had fished out of Ramsgate, and still bore the letter 'R' on her bows. Like all the larger Brixham smacks, she was dandy - rigged, with that characteristic forward rake of the masts. Her tiny cabin was neat and tidy, and contained four bunks, two on

either side, with lockers below them, and a small table between. Every hole and corner seemed to be used for something or other. There was a cooking-stove in the far end of the cabin, and the whole place was pervaded with a vague smell of salt, stale food, fish, and oilskins.

Far behind the cliffs of Caldey sank lower, and the island gradually faded away until it became part of the mainland. Then as the sun went down the countless

lighthouses that keep watch over the shipping in the Bristol Channel began to flash, north, east, and south; while to the far west lay the unbroken horizon of the Atlantic. I remember eating a huge supper, washed down by mugs of very strong and sweet tea, and then turning in early, one of the crew having given me the use of his bunk, he himself sleeping on a locker just beneath me.

When I awoke the following morning and went up on deck I found the wind had freshened; the *Fiery Cross* was lifting her bows to an incoming sea, heeling over and crashing into it, with a hissing rush of water under the bowsprit as she pitched. Then as clouds raced over the sky and the wind whistled through the shrouds the skipper yelled, "Look out for the boom!" and we heeled over on to another tack, the vessel staggering along again with a dry deck, being lifted up like a feather as she rose over the long Atlantic swell. After many hours of this we began to make out the coast of Cornwall, and later on the masts of the fishing-fleet and the tower of St Ives Church, with the tinmines on the grim, forbidding-looking cliffs to the westward.

I am always glad to think that my first experience of 'going round the land'—i.e., turning the point of Cornwall—was under sail, and not with the aid of steam or motor. For it is something that may never happen to me again. And, better still, it took place on board a Brixham smack! But what a long and tedious process it was! More than two days passed before we eventually got past the Longships and saw the Lizard light flashing with its astonishing brightness some twenty miles to the eastward. The wind kept on shifting, and finally dropped so that we were becalmed.

The boom banged to and fro, and at the end of these long calms we drifted back again on the flood-tide, always in sight of the cliffs of Land's End and Cape Cornwall, until I began to wonder if we should ever make Brixham. Then one evening the wind got up suddenly and we raced along. Next morning when I came on deck the skipper told me he would shoot the trawl, for we were now off the Scillies, with several other smacks and French crabbers in the offing.

METHOD OF FISHING WITH BEAM TRAWL. We had arrived on the fishing-grounds, the tide had just turned, so that we should be able to tow for several hours in the same direction. The Fiery Cross was put head to wind under easy sail in the direction in which she was to tow, for when trawling a straight course must be kept, and in a smack this can be done only when the wind is generally fair, or more or less abaft the beam. There was a great flapping of sail, banging and clashing of the boom. "Down trawl!" roared the skipper, and the hands proceeded to shoot the net, beginning with the cod-end, until the whole trawl was clear of the vessel and hanging from the long beam, which had still to be hoisted up. The beam was now held by the two parts of the main bridle and heaved overboard, the net following after, and gradually sinking as the warp was paid out. The whole gear slowly disappeared and was swallowed up in the water, the warp straining and creaking on the bulwarks.

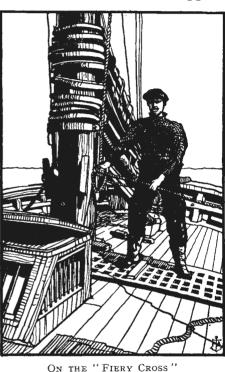
The quantity of warp to be paid out so as to ensure that the trawl reaches the bottom must be determined by the judgment of the skipper, according to the weather, tide, and the kind of fish expected to be caught. Even if every precaution has been taken it may sometimes happen that the irregular jerking of the

warp as the trawl is towed along indicates that something is wrong, in which case there is nothing for it but to heave up the gear and shoot again.

A change now came over the boat. Her pace slackened, and she sailed along with no more than her scuppers

awash, steadied down by the great weight of gear she was towing behind her, for the trawl had reached the bottom and was working properly. There was nothing more to be done for the present but to keep the warp at such an angle with the length of the vessel as to make her steer in the course set by the skipper.

The large mainsail of the Brixham smacks is the great drivingpower, and they have always a strong tendency to fly in the wind.



This can be counteracted by the ordinary method of steering, but that is unnecessary when the trawlitself can be made to do the work. For instance, should the wind be so fair that the smack can run nearly before it the warp is led over the stern or, more commonly, over the weather quarter close to the taffrail, and is prevented from slipping forward by a stout thole-pin inserted in one of the holes bored for that purpose in the gunwale.

Should, however, the wind be on the beam the warp is carried farther forward, its position adjusted according to a sort of rule of thumb, and observation of the course made, allowance being made for a good deal of leeway



Making Fast the Cod-end of the Net

by heading the vessel nearer the wind, "making her look higher," as it is called, than her proper course. In this way the vessel is made to steer herself, and practically keeps the desired course within the not very precise limits necessary for working with the tide over her fishing-ground.

One hand stayed on the deck to look out for any change of wind, and to feel the warp from time to time to see if the trawl was working properly. The rest of the crew went below and turned into their bunks or

otherwise employed themselves until the watch had to be relieved or until it was necessary to shift the trawl a rather complicated business.

When the tide has turned or the limits of the fishing-ground have been reached the crew of a trawler off, called up, the 'stopper' of the trawl-warp is cast are the 'slack' of the warp goes overboard, and the vessel swings round with her head to the trawl, and almost immediately with her head to the wind. In the Lowestoft smacks, few of which now remain, the warp comes in over the side, a large semicircular opening in some

vessels, or a square gangway in others, with a roller fitted in it, being made for that purpose opposite the capstan. In the Devonshire trawlers, however, when the foresail and any other light sails have been got in, the 'boy' is sent below to the rope-room just abaft the mast, and two 'hands' go to the winch to heave in the warp. This is always a tedious and monotonous process, often taking two or three hours, seldom less than three-quarters of an hour, while in bad weather the smack rolls and pitches heavily all the time to the accompaniment of the clink, clink and the hissing of the steam-winch. "As the warp is brought on board by the winch," writes E. W. Holdsworth in Deep-sea Fishermen and Fishing-boats (p. 79),

it is coiled away below by the boy, so as to be ready when the net is to be again shot. As soon as the shackle joining the warp to the main bridles comes in the end of the 'dandy' bridle, which was temporarily made fast above the shackle when the net was lowered, is cast off, taken aft, and brought in over the stern to the 'dandy wink,' or small windlass; the men at the winch meanwhile go on heaving till the beam appears at the surface, it having been swung alongside, the after end is hoisted up astern by the 'dandy' bridle and secured, a tackle is then hooked on to the foreend of the beam and hauled upon till the head iron is got over the gunwale and made fast between two of the shrouds. Nothing now remains but to gather in the net; this is done by hand, and it is stowed away on the top of the beam and the gunwale until only the cod is left, the various fish which congregate in and crowd the pockets being shaken from their hiding places as the net is hauled in, so that the whole catch is in the cod-end of the trawl when it comes on board. Eager looks are cast over the side to see what sort of haul has been made, and it is a bad sign when nothing is said and the bag is got on board without a word. Should the haul be a tolerably good one, however-perhaps from half to three quarters

of a ton of fish—it is a different matter: a 'selvagee strop' is passed round the upper part of the bag, the fore halyards are hooked on to it, and the winch is again put into requisition to hoist up the result of the day's work, two of the hands standing to receive the bag as it comes on board and to cast off the cod-line which closes the end of the net.

This being done the whole mass of fish falls on deck.

In Mr Eden Phillpotts' novel *The Haven* is an excellent description of the drawing in of the net which recalls my experiences many times on the *Fiery Cross*. The scene is staged on the Brixham smack *Jack and Lydia*.

Quickly the cod-end of the net rose gunwale high, like an enormous dripping sponge of matted weeds. Here and there in the midst the white belly of a fish gleamed silvery, jammed against the meshes. Then the bulging mass was dragged aboard; Gilbert threw off the cod-line, and a downpour of mingled matter, dead and living, showered, slithered, spread, and streamed every way on the deck.

To Ned the things that belonged to humanity rather than the sea came first in interest. He shuddered at all the strange and gasping, creeping, and crawling life that spread here. He was sorry for the creatures torn from the depths to die . . . but the man-of-war's fire bar, the scrubbing-brush, the cake of soap, the tarpaulin hat, the boot, the clay pipethese familiar things interested him. . . . The prey of the trawl declared itself; a legion of little brown and yellow crabs, like ants from a nest, began to thrust out of the mass and hurry sideways off in every direction. Horrors crawled here-strange nightmare things without faces whose eyes were perched on stalks, whose ways and motions seemed awful to the mind that could not picture their propriety in their own environment. . . . Spider crabs and hermit crabs -red and green and grey-were here, with starfish, and a swarm of useful things as yet too small to kill. A few fine

plaice, brown and scarlet-spotted, went into the first fish box . . . then the men sorted two score of ray from the writhing heap. A hake followed, and there emerged also some flukes, dab, and rock ling. Hundreds of immature flat fish were shovelled up in the seaweed and returned to the sea.

But many of the frail, stranded creatures were dead before they returned to their element, and many had perished in



BRIXHAM FISHERMEN

their long drag over the bottom; and now the gulls, that came in a squalling storm after the boat and hurtled astern with wild flutter of wings, fed and fought over all this food.

The Fiery Cross continued fishing for the next day or two, but without much luck, so finally the skipper decided that we should make for Brixham, and after thirty-six hours we were rounding Berry Head, and had dropped anchor inside the outer harbour within the breakwater. Brixham, with its long line of slate-roofed grey houses that caught the morning sunlight, was veiled in a thin haze of smoke from the newly lighted fires; the harbour was crowded and alive,

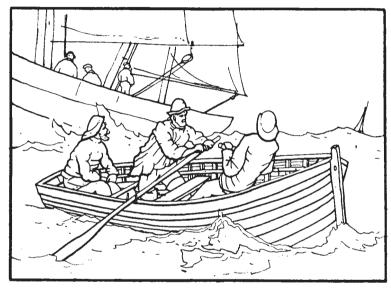
bustle and confusion was on every side. I can do no better than describe it in the words of Mr Eden Phillpotts:

A harmony of yellow masts and medley of rich tones upon them; cordage and nets and sails hung to dry. The tide was in, and the craft floated bulwark to bulwark, closely packed on the still grey-green water. The houses ascended tier upon tier, while beneath along the quay, where stretched a row of small shops and inns, spread the red roof of the auction mart. . . . Men shouted and bawled, boys yelled and raced about, dogs were at their busiest, noisy as the noisiest, and above all wheeling everywhere, with heads turning this way and that, the grey gulls and the brown gulls floated serene, bright-eyed, to mew and utter their dry chuckling laughter. In the harbour the air was drenched with the odour of tar and twine . . . a hazy mist of cordage shone here, and the naked poles were capped with little golden weather-vanes, from which, like flowers, flashed scraps of fluttering bunting, scarlet, yellow, and green. In blue jerseys and russet overalls-in sea colour and sail colour-the fishermen were clad. They stumped and hurried about full of their own business.

Such was the scene that greeted my eyes on landing at Brixham for the first time on that bright autumn morning many years ago. I got into the dinghy as she was launched, and was paddled in to the quay, with our fish in baskets in the bottom of the boat. Arrived at the steps, the men began to fling the fish ashore to a man with a pronged fork waiting to receive it, and who hurled it on to the quay.

The first-class smacks use larger boxes—twice the size of an ordinary 'trunk'—in which the fish are packed in ice and stowed below. At Brixham the catch is always landed in small boats, at Lowestoft and Plymouth the smacks come alongside the quays, the

fish being taken direct to the market. I did not wait to watch the sale, but went ashore with the skipper and up to his house, where, having had a good wash, I was soon enjoying a substantial Devonshire breakfast of fried fish, mountains of bread and butter, and tea with cream.



PUTTING ASHORE FROM A SMACK

Since then I have made trips in other Brixham vessels, including one of the smaller trawlers called 'Mumble Bees,' but it is always the first trip made on the *Fiery Cross* that remains most vividly impressed on my memory. In the Mumble Bees the larger species of fish are sorted out and packed in wooden boxes (trunks), the fish of less value being put in baskets (pads or maunds).

The old sailing-trawler is now almost extinct. At one time, during the eighties of last century, there were more than two thousand five hundred large smacks

registered in British and Irish ports, Yarmouth alone possessing more than seven hundred of this class of vessel. To-day the smacks have disappeared altogether from Yarmouth and Hull. The only ports where you can still find them on the coast of England are Lowestoft, Brixham, Ramsgate, and Plymouth, and



PACKING WHITE FISH ON A TRAWLER

their numbers have been reduced to little over three hundred.

"The deep-sea trawlers from the East Coast ports," writes Warington Smyth, in his Mast and Sail in Europe and Asia,

are among the finest productions of any fishing industry in the world. The old sailing smacksman of the North Sea will not be forgotten, even when everything carrying a trawl is under steam, by anyone who has seen their fleets and sailed with them. They have set fashions even in the yachting world: the ketch rig is common among yachtsmen now, and even the old habit of carrying a jib-headed topsail over a reefed mainsail, which I can remember hearing stigmatized as "only a smacksman's dodge," is now perpetuated with regularity in the smartest of yachting cruisers in a blow.

LIFE ON A SAILING-SMACK FIFTY YEARS AGO. I have already mentioned that the old sailing-smacks could not fish unless there was a breeze. Here is a picturesque description of a fleet of Grimsby trawlers



LOWESTOFT SMACKS

becalmed off the Dogger Bank on a Sunday afternoon some fifty years ago: 1

Glass-like . . . even as a round mirror laid flat on its back, cupped in by a big blue dome far away, blue touched with that inseparable slight grey of northern latitudes: a liquid mirror reflecting the tarred sides and brown sails of the idle smacks that dotted it here and there in places singly, in

¹ J. E. Patterson, Fishers of the Sea, p. 153.

others by groups of two to eight or ten, lashed side by side, with now and then a tramp steamer throbbing its way into sight, then out again, coming from outside nowhere, going to the unknown beyond, leaving a dirty streak of fading black, low down on the side of the cup, or coming nearer with its smell of oil. . . . Closer at hand was one of those floating curses to the North Sea fishermen, a 'cooper,' a smack craft fitted out in Dutch, German, or Flemish ports as a sea-going ship of the worst kind, ready to trade in vile liquors and equally inferior tabacs and cigars for either money, a smack's stores, or even the vessel herself at a pinch. Dark green waters, in the distance, polished to a shining, colourless hue by the slanting rays of an afternoon sun; . . . ruddy brown sails that looked like rich velvet half a mile away, some of them a bright tan colour, with an occasional snowy one varying the dark hues; black hulls with large conspicuous white letters and figures on their bows; small boats hanging astern by their painters, or being rowed from smack to smack; naked boys and youths, gleaming flashes of skin as their dark heads bobbed up again immediately to swim about until tired, then up a rope to the rail for a rest before diving again; sturdy bronze-faced men lounging at cards, or walking, smoking, and yarning on scrupulously clean decks; smoke from the little cabin funnels; the gentle creaking of spars; the lazy flap of sails, the mingled slight smell of tar and fish and the chow-chowing of cork fenders between the slightly heaving vessels secured beam to beam. . . . All the craft formed a fleet which might be anywhere from fifteen to sixteen to fifty or sixty smacks, or even more, remaining out eight to ten weeks, putting their fish every morning on board one of their number . . . the 'cutter' which took it to Grimsby, and was paid a commission on all she carried, a commission which amounted to about the same earnings as the other vessels made. Each fleet had its 'admiral' and 'vice-admiral,' the latter to take the place of the other when he went home for a week's spell at the end of his term, or when he fell ill and had to be taken home, these men being acknowledged masters of the fishing-grounds.

Mr Patterson goes on to describe to us the Sunday dinner on the deck of the *Helen*, to which the crew of two other smacks had been invited.

A lusty meal of roast leg of mutton, boiled corned beef, potatoes, cabbage, 'plum duff,' and sauce, followed by pots of steaming tea, and in the preparation and clearance of which



BOY COOKS ON TRAWLERS

the boy cooks of the two smacks had been chased in to lend a helping hand. . . . So went the time till evening came . . . here a partially drunken card party, half-quarrelling over the game, there an 'earnest member' reading his Bible, and by his side a youth lost in a blood-curdling 'shocker,' while close by a third hand slept out his watch below because the heat in the cabin was too great for sleep; on another deck some youngsters, with their work temporarily done, were playing at dominoes; yonder a delinquent boy was doing penance by making sennit when he would otherwise have been amusing himself; others in nothing but fearnought trousers and coarse blue serge shirts were "sweating their little selves to pieces doin' rowin' matches" in the small boats, against which they would have 'kicked' had it been part of their work; meanwhile other skippers and mates were grouped in batches, under the shadows of sails, out of that

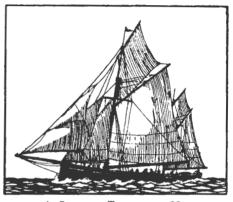
sweltering sun, yarning on fishing and kindred topics; whilst, again, here and there some of the deck and third hands were engaged in 'braiding' new nets with thick white manilla twine, or making fenders and the like under a mate's supervision

Finally we are given a description of the Sunday evening Gospel meeting on the Admiral's deck:

A happy-go-lucky affair, a hymn, a prayer, or an address, as changing circumstances seemed to warrant or as the spirit directed. . . . They began with a hymn, selected by one of the men; it was a lusty thing with a swinging chorus from Moody and Sankey's Hymn Book, and not a little strange did it sound amidst that grove of slightly swaying masts, gently flapping sails and peculiar chow-chowing of fenders between the vessels. True, all had not come to the meeting in a fitting frame of mind. . . . Some had come in a moment of levity even, with scoffing smiles on their faces and disbelief in their hearts. But all this vanished in the full-lunged lines that they sent rolling sonorously over the darkening face of those placid waters . . . waters that, in hungry fury, had mouthed so many of their fellows and forerunners winter after winter, age after age. Spare masthead lights (large globular lamps) had been brought from half-a-dozen smacks and hung or placed around that group of fifty or so men, youths and boys, assembled about the admiral's fish-room hatch, amidships. . . . Dim, comparatively, was the irregular circle of lights around them, but enough to locate them by; enough to throw the great brown sails into heavy shadows; enough to make those main booms seem like a row of trimmed huge horizontal trees; enough to show up faintly the animated faces, bearded and unbearded, the blue guernseys of skippers and mates, the dingy white and the brown-speckled ones of apprentices, and the fishing gear around them; enough and not too much to give the whole scene a peculiar and weird picturesqueness that could hardly be matched in its individual features the world over. . . . Suddenly there came the welcome cry, "A breeze, a breeze!" Instantly everyone fled

to his own smack. . . . There were hurried casting adrift and shoving clear, bustle and excitement on every deck; there were shouted orders in all directions, cries for missing or supposed missing hands, commands to bring forgotten things, the bangings of main and mizzen sheet-blocks as the

booms swept across decks and back again, and the general noises of trimming sails. In much less time than it would take to detail the happenings those twenty odd vessels were separate items on the face of the waters, that had been gently ruffled by a cats-paw, which had come and gone, leaving barely



A GRIMSBY TRAWLER, 1880

the faintest of ripples to show its passing. . . . Again the sea was as a glassy lake reaching away to the confines of darkness to where dark water and darkest sky seemed to meet in places without any apparent line to distinguish one from the other. . . . Amidst the lazy creaking of spars and the occasional flap of sail came songs, the sounds of flutinas and other loud evidences of revelry from a smack here and there. In the heart of all this lay the *Helen*, with the mate pacing the deck amidships and puffing tiny clouds from his black clay pipe. . . . Meanwhile the fawning mantle of that quiet sea lapped the counters and rudder head; while the coarse revelry, the swaying spars and sails, and the chock-chock of oars in rowlocks and between thole-pins broke that primeval stillness to beautify which the spirit of night had lent all her loveliness.

When writing about the lives of deep-sea fishermen it is impossible not to mention the work that is carried on to promote their moral and material welfare by the

Royal National Mission to Deep Sea Fishermen, founded fifty years ago.

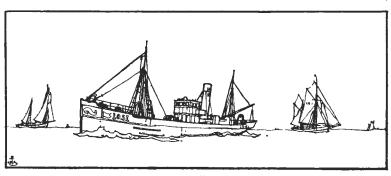
Ever since 1881, even though conditions both ashore and afloat have changed enormously, the R.N.M.D.S.F. has continued its campaign on behalf of our fishermen. Space is too limited to outline the activities of the Mission, but it may be of interest to recall that Sir Wilfred Grenfell, of Labrador fame, was the pioneer sent forth by the society to extend the helping hand to the Newfoundland fishermen, whose lives are described in another chapter, and out of this first visit has grown his great work in Labrador, and among the earliest of the workers who went out in the Mission smacks to the lonely fleeters was Sir Frederick Treves.

When the Mission started its work the vast bulk of the fishing was done in sailing-vessels fishing in the North Sea, and the society was able to minister to them by fitting out Mission smacks. With the introduction of steam the radius of action grew, and more and more vessels acquired the habit of individual fishing, instead of being grouped in fleets, each under an 'admiral' as formerly.

After the War the habits of the fish seemed to have changed, and less and less fish were caught in the North Sea. So the scope of the Mission's work was enlarged, and it became necessary to provide the fishermen with more institute accommodation in ports far away from their homes, so that they could get not only food and recreation, but also sleeping-quarters. All round the coast of Great Britain you will now find institutes and homes belonging to this organization, from Lerwick, in the far north, to Newlyn, at Land's End, where fishermen of every nationality are made welcome. In addition to its thirteen institutes on shore the Mission

maintains two powerful and well-equipped steamers and two sailing-smacks, which are always at work in the North Sea.

With the exception of the French Société des Œuvres de Mer, whose work is described in the chapter on cod fisheries, there is no other organization of such importance in the world which devotes itself to promoting the spiritual and material welfare of deep-sea fishermen.



THE MISSION TRAWLER "QUEEN ALEXANDRA"

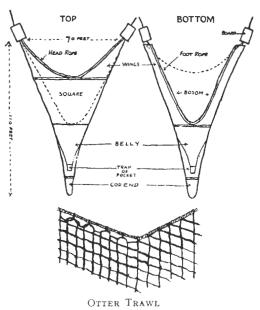
although a fine mission ship is maintained by a Dutch society, and much good work of a similar character is carried on in the fishing centres of Germany and Norway.

Brixham and Lowestoft are the only ports left in Great Britain where one can still study the life and methods of the old-fashioned sailing-trawlermen. There are a few sailing-trawlers in some of the French ports, but most of these have now been fitted with auxiliary motors. And the same applies to the German ports on the Weser and Elbe, where the old smacks are now practically extinct.

THE OTTER TRAWL. The introduction of steam-trawlers about the year 1880 led to the gradual use of the otter trawl in place of the old-fashioned and cumbersome beam trawl, now found only in the few remaining

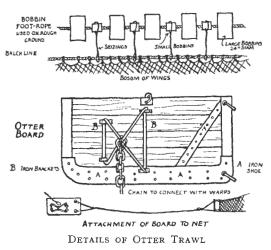
sailing-smacks left on the English coasts. The net is here kept open by the reaction on two boards (which replace the beam and heads) as they are towed through the water.

An otter trawl is attached to the boards on the bottom by means of a very heavy 'foot-rope,' and



above by a head-rope. The latter takes the place of the beam in the beam trawl. The head-rope is much shorter than the foot-rope, which curves out toward the tail-end of the net. This deep curve is called the 'bosom.' The part of the net between the head-rope and the foot-rope is called the 'wing.' A trap or pocket is inserted inside the bottom or cod-end of the net. The cod-end itself is open, but kept fastened by the 'cod-line'; it is undone when the catch of fish is let out after the net has been hauled in. The length of a

trawl-net varies from one hundred and twenty to one hundred and forty feet in a large vessel. The netting is of hemp, the mesh increasing from about one inch at the cod-end to about three inches at the mouth. The two wooden 'otter-boards,' heavily clamped with an iron shoe, measure about eleven feet by four feet six inches, and weigh about half a ton. The total weight



of the whole 'gear'—i.e., boards, trawl, fish, and warp—may be as much as five tons. When being drawn over rough ground the foot-rope of an otter trawl is attached to large wooden rollers called 'bobbins.'

On a steam-trawler the gear is 'shot' every five or six hours while fishing is going on.

The nets are hauled in the following manner: One man stands at the steam-winch. The rest of the crew take up their positions on the starboard or port side waiting while the thousand or more feet of steel warp is being wound up and around the two drums forward of the wheel-house. At last the two otter-boards come bumping over the side and are made fast close to the

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'gallowses,' curious horseshoe-like frames standing up on either side of the vessel fore and aft. Then comes the foot-rope, with its rollers, lastly the net itself. Every man gets hold of it and drags it over the bulwarks. A



Hauling in the Gear

rope is next passed round the cod-end of the net, which is hauled up over the forepart of the deck by means of a block until it is directly over the 'pounds'—i.e., wooden divisions about two feet high.

Dripping with water, the net, swollen with the fish it contains, hangs in mid-air like a great bag or

balloon. The mate gets underneath it, unties the codline by which the bottom is secured, and jumps away quickly to avoid being smothered by the sudden downward shower of fish that falls on to the deck in a rush. The cod-end of the net is tied up again, and the gear shot once more, the crew proceeding to gut and wash the fish in the manner to be described later.

Mention should also be made of a new type of trawl gear that was introduced into this country about 1920, known as the Vigneron-Dahl trawl (more commonly referred to as the 'V.D.,' or 'French,' trawl, from the country of its origin). What chiefly distinguishes it from the ordinary otter trawl is that the otter-boards are

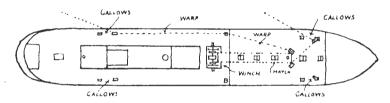
attached directly to the end of the wings. The latter are longer than those used in the ordinary otter trawl, and are separated from the wings by long 'ground-warps' of wire and manilla. The ends of the wings are attached to steel or wooden poles. The head line is kept up by glass buoys set closely together in the centre, and the ground-rope is thus weighted at the middle. The advantage of the V.D. trawl is that it works over a wider area than the otter trawl, as the ground-warps are close to the bottom, thus drawing the fish toward the incoming net. The Cardiff trawlers are all fitted with this new type of net, and it is also used in other ports.

Modern Steam-trawlers. The typical modern steam-trawler is a vessel of 150-160 feet long, by twenty-five feet beam, and thirteen feet deep. Her average tonnage is from 70-250, her bunker capacity 250 tons. She is fitted with triple-expansion engines. In the forward part of the ship are to be found the living-quarters of the crew, rope-, net-, and ice-store, and fish-hold, the latter being about thirty-six feet long, with an area of 8500 cubic feet. It is divided into divisions or 'pounds' by detachable boards fitting athwart-ship fore and aft, and shipping into stanchions the full depth of the ship. Each pound is divided horizontally by a number of shelves on which the fish, mixed with ice, is laid. Immediately forward of the bridge on deck is the steam-winch used for shooting and hauling the fishing gear. Forward of the winch the deck is divided into pounds by boards about two feet high, and into these the fish are emptied out of the net, sorted out, washed and gutted before being stowed away below in ice. In all the more modern trawlers a 'whaleback' about six feet high is fitted right forward, serving as a cover for the steam-windlass and also as a

protection for the crew working on deck, as the round form of the whaleback throws off any heavy seas and keeps the deck drier.

The average speed of a steam-trawler is eleven knots. She carries a crew of nine hands, consisting of a skipper, mate, boatswain, two deck-hands, cook, two engineers, and a fireman.

As I have already stated, more fish is landed by trawlers in Great Britain than by all other methods



Deck-plan of a Modern Steam-trawler, showing Method of working Trawl

of fishing combined. Trawl-caught fish—sole, plaice, turbot, halibut, cod—are much more valuable than fish caught by drift—e.g., herring and mackerel.

The area actually exploited by British, German, French, Dutch, and Belgian steam-trawlers is that known as the 'continental shelf' of Northern Africa and Western Europe. Trawling is not practicable beyond a depth of two hundred fathoms, and for all general purposes the one-hundred-fathom line may be taken as the extreme limit of most steam-trawling. Most of the trawl-fish landed in Great Britain is caught off Iceland, other regions showing big catches being the North Sea, Rockall Bank, the West of Ireland, and the English Channel. British trawlers also pursue their operations as far north as the Barents Sea and as far south as the coast of Morocco.

In order of importance as to quantity of trawl-fish

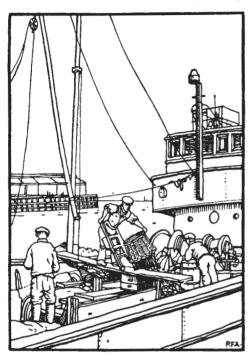
landed the British ports are Grimsby, Aberdeen, Hull, Fleetwood, and Milford; other ports are North Shields, Lowestoft, Swansea, Cardiff, and Hartlepool.

LIFE ON A NORTH SEA TRAWLER. Some years ago I chanced to make friends with a certain trawler skipper in Grimsby. His own knowledge of the trawler industry went back over fifty years, for he had first gone to sea as a boy-cook on one of the old sailing-smacks.

Discovering my interest in deep-sea fisheries, and learning that I had never been to sea in a steam-trawler, he invited me to go with him. And here are some of my impressions of two trips out to the Dogger Bank, both of them taken during the winter months of November and December. The actual details refer to a Grimsby North Sea trawler, but the conditions of life do not vary very much in trawlers belonging to other British ports, such as Hull, Fleetwood, or Aberdeen. Thus what I have recorded might equally well apply to any of them, whether fishing on the Dogger Bank or elsewhere.

It is a typical November afternoon in the Grimsby docks. A pale winter sun, low down in the south, lights up the scene. There is the spire of Patrington Church across the Humber nearly eight miles away. Over fifty trawlers must be waiting to go out, dirty, unpainted, rusty-looking ships, stern and bows bent and smashed in with constant bumping into each other, coming in and out of the lock-gate. To the east, about half a mile from the docks, nearly a hundred trawlers lie anchored in the roads. They are waiting for the flood-tide. This morning it was too foggy for them to come in with their fish. I go aboard with the skipper and the mate. We have to climb over other trawlers and cling on to greasy ropes in order to reach our own ship.

Bump! "Look out with a fender forward," shouts the mate. Ships grating and grinding against each other in a restless hurry to get off, shrieking and



COALING A TRAWLER AT GRIMSBY

hooting of sirens, mingled with curses of skippers. They lean out of their wheel-houses and shout orders to the mates or first-hands. Crunch! Bankura bangs into Boomerang's bows. The Boomerang's skipper makes a rude remark. His crew grin at one another. Some of them are too drunk to understand. They gaze about them in a halfdazed sort of way. and lean helplessly over the bulwarks.

Somebody roars through a megaphone, "Hard to port!" "Hard to port!" comes back the answer, as the wheel goes round. We are now in the lock-gates. A crowd of men, two or three women, and some children watch us go past. Small boys shout to us, "A prosperous voyage and good luck to you!" A handful of coppers is thrown to them. "Thank you!" and then a sixpence and a shilling follow. "All aboard?" yells somebody else. "No," roars the skipper, "two deckies and a trimmer missing. They'll have to come off in the tug."

Another trawler with blue-and-white bands round her funnel rubs up against our stern. "All aboard?" "No," comes her skipper's answer, "two apprentices not turned up. Blast 'em." "Ere's one of 'em," cries a voice from the crowd. A blue-jerseyed fifteen-year-old lad with a freckled face is shoved forward to the side of the lock. "Some fool 'as collared my gear. I an't got no boots. I can't come this trip." "The kid says 'e ain't got no flamin' gear." "Tell him to go to 'ell with his blasted gear. We can't stop now."

We steam out past the pier-head. Full steam ahead! In a few minutes we anchor in the roads close to the bell-buoy. Other trawlers come out, one by one, and very soon are far away down the river. The sun sets behind a dark-grey bank of smoke and haze. An east wind blows cold from the sea. Lights of Grimsby begin to twinkle. Somebody gives me a mug of tea. It is very sweet and nasty, but it is hot; that is what really matters.

It is quite dark now, and there are a myriad lights, white, red, and green, all around us; beyond them the lights of the distant town and docks. A black shape grows bigger as it draws nearer, and it turns out to be the tug with our missing deck-hand and trimmer. They clamber on board. At last we can get away. There has been quite enough delay, and we ought to have been well out to sea by now. So the anchor is weighed and we steam off.

I am standing in the wheel-house. The skipper is at my side. "East by south," he gives the order. "East by south," grunts the man at the wheel, with a cigarette between his lips. The breeze freshens. On our port and starboard bows I can see the lights of Spurn Head and the Bull Lightship. The *Empyrean* is doing about

ten knots now, head to wind. Every few minutes we dip our nose into an oncoming sea, and a shower of spray breaks over the decks. I step out on the bridge.

We have left the Spurn Light astern, and are now in the North Sea. A red light on our port bow, a big Wilson liner on her way home from Norway or Denmark? Yes. I see the funnel-housemark on her. The wind whistles and moans sadly through our rigging. The vessel is rolling heavily. One can feel the movement of her propeller. She is far too light in the water. Her forward bunkers are empty owing to the coalstrike. She is like a cork in the water. It is time to turn in. "Show me where we are going," I ask the skipper. He brings out an old and much-used chart of the North Sea, and, with a pair of dividers, points to a depression of thirty to thirty-five fathoms, surrounded by steep banks just to the south of the Dogger. "The bottom is fine sand with particles of black mud. All the year round fishing takes place here. We shall shoot our gear about 2 A.M." In six hours we shall be off the Dogger.

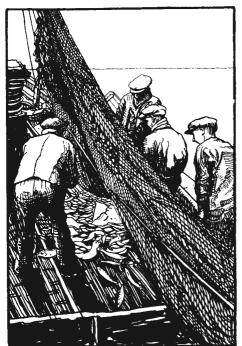
METHOD OF HAULING OTTER TRAWL. I am suddenly awakened by the grinding and hissing of the big steam-winch just outside the skipper's cabin. We have been at sea three days. It was about two hours ago that we finished gutting the last haul. Now we are due to haul again. There is little time to rest when one is off the Dogger and the weather is good. If there is a gale blowing then the hours seem very long indeed, with nothing to fill them. One cannot sleep all day. Often the rolling of the vessel makes sleep impossible. But on this trip the weather was fairly kind for the time of year.

The crew, still dazed with sleep and the close air

of the forecastle, stumble up on the deck. A dirty, unwashed set of men they are. But who cares about appearances when one is trawling? Why should one bother? The great thing is to keep warm. It is a dark winter's night, with a chill, raw blast blowing straight across the North Sea from over the flat lands of Denmark, away from the snow-covered steppes of Russia. There is no moon to cheer us. The sea breaks over our starboard bow every few minutes. If it was not for our oilskin frocks, sou'-westers, and big thighboots we should be wet through. Even as it is the water seems to trickle in through odd holes and corners.

Some of the crew wear woollen gloves or mittens. But these will have to come off as soon as they begin to gut the fish, before it is stowed away on ice in the hold below. Four large gas-lamps are hung over the deck, forward of the winch. They give a fairly powerful light. This part of the deck is divided into divisions by boards about two feet high. In the centre one a dozen or so wicker baskets are ready at hand. One man is at the winch. The steel warp is gradually wound round the two drums. The crew are stationed on the starboard side waiting. We are nearly broadside on the wind now, and the ship is rolling heavily. Our bulwarks are almost under water each roll. It is very difficult to stand upright. At last the otter-boards come bumping over the side. In a few moments the net is dragged over the bulwarks. With the help of a strong gas-lamp, hung from the ordinary starboardlight board by the bridge, we can make out the silver and white of the fish in the net a few feet below us. The cod-end of the net now hangs in mid-air. Water drips down from it. Some one struggles up and unties the cod-line by which the bottom is secured. A

splashing, slithering, rushing sound, and the forward part of the deck is covered a foot or so deep in fish. For the first moment you cannot distinguish what is



EMPTYING THE CATCH ON DECK

there. Then you look more closely, and you see the brown-backed, red - spotted plaice, silver-green cod, grey haddock, dull greygreen whiting, turbot, skate, dog-fish, and perhaps a few soles. There may be some crabs, sometimes a squid, and always many starfish.

Nearly every steamtrawler to-day uses a steel chain to drag along the bed of the sea. This is called a 'tickler.' By this means scarcely anything can escape being

swept into the trawl. Without it many a fine sole or plaice, lying on the bottom, would get away. But it is a scavengering sort of fishing. Look at the lot of waste material now on the deck: spawn of all sorts, young fish which have to be thrown away, mussels, 'queens,' and a hundred other shellfish, and bits of coal. It is strange that anything is left in these popular fishing-grounds of the North Sea. Day after day, all the year round, their sandy bottoms are being 'scraped' by greedy trawlers.

But no time is wasted. Almost as soon as the codend has been untied the gear is shot again, unless the net has fouled in some piece of wreckage and has to be mended. During the first few years after the War this was no uncommon event. Indeed you might sometimes find a mine in your trawl, in which case the only



SORTING FISH ON A GRIMSBY TRAWLER

thing to do was to cut the whole thing away, if you noticed it in time. It might be a 'dud' mine. But it was not safe to take any risks. Every steam-trawler carries two trawl-nets ready for instant use, one on either side of the ship. If the one is damaged the other can always be shot without wasting precious time.

The men now set to for the chilly work of gutting. On a winter's night, in the teeth of a raw east wind, it is not exactly a pleasure. There is not much protection from either sea or wind. The fish are quickly sorted

out and put in different baskets—plaice, soles, small haddock, 'kit,' 'gibbers,' codlings, whitings, and so on. When they have all been gutted a hose is turned on, and they are thoroughly cleaned and washed. The baskets are then passed down through the hatch to the fish-hold below. The fish are taken out of the baskets and laid on shelves, each layer being mixed with ice. The two forward pounds are filled with ice before leaving port.

Cold and wet, we can now go aft to the galley where the cook may have a mug of hot tea or cocoa ready for us. Perhaps the net is badly torn. It's no joke mending a net that, although tarred, sometimes freezes stiff. And then what about gutting live fish? Have you ever tried to hold a live fish? No? Then I pity you if you ever had to handle a big live cod or turbot. Soles are even worse to gut. It is next to impossible to do the job with mittens on. This is not all. The nets sometimes are torn so badly when working over rough ground that there is a grinding and a tearing, and the ship stops. The tide swirls past. The wind shrieks in the rigging. "Up trawl!" We are fast again. And solid too! "Heave on the winch!" The winch groans (as if in sympathy). Several big seas break aboard with a sound like guns. It is no joke to 'come fast 'with the trawl in dirty weather. Sometimes the trawl will tear and come free of itself, badly rent. Often the wires part, and then the whole gear is lost. Many a trawler, especially the old wooden Lowestoft boats, has been lost in this way. For if you "heave them down tight " (to quote one of the crew) they are in the trough of the sea. A big breaker comes along. What happens? If the wires hold, as they do for a considerable time, the boat cannot 'lift.' Consequently



GUTTING FISH ON THE DECK OF A TRAWLER

that sea gives her a terrible blow that fills her fore and aft. Wooden boats cannot stand this for long. Sometimes the crew will be mending nets for thirty or forty hours without a wink of sleep, leaving off only for a bit of food.

And now, the catch being disposed of, the crew knock off their boots and turn in to their bunks for a couple of hours' sleep, for it will soon be time to haul again. There is little rest when trawling in the North Sea. For so the work goes on, day after day, night after night. The heavy monotony of such a life, with a brief thirty-six or forty-eight hours between each trip! Yet in Grimsby, Aberdeen, and Hull there are hundreds of trawlers engaged on this job, year in, year out, not to mention many other larger trawlers that fish off Iceland, Greenland, or the Faroes, or in the fleets. In the latter case the ships are at sea for over six weeks at a time. But the general conditions are more or less the same. Every North Sea trawler carries at least nine hands: a skipper, mate, first hands, cook, two engineers, and a trimmer. Larger vessels which make longer voyages carry more.

Meals on a Grimsby Trawler. "Are you ready for a bit of breakfast?" asks the skipper. I wake up; surely it cannot be breakfast-time yet? It is still quite dark. "Breakfast?" I murmur from my bunk. "Yes, it's a quarter-past seven." So I tumble out, pull on my sea-boots, and clamber up on to the bridge. The *Empyrean* is rolling heavily as usual. She has been rolling all night. Such a trying sort of roll. My body aches all over. We climb down the steep ladder and make our way aft, clinging on to the rails. A smell of fried fish comes up out of the galley door. We go down below to the cabin. The mate, the first hand,

and the second engineer are here already. "Good morning!" On the table, securely wedged in with 'fiddles,' are a large tin of fried skate, a jar of butter, a tin of bread, and some mugs of tea. This is our breakfast. The fish is very good. It was caught only a few hours before. We are hungry, and there is not

much left after we have eaten. The trimmers and the deck-hands are waiting to have their breakfast, and we don't stay longer than we need. As we climb out on the deck again the blackness of night has changed to the greyness of dawn. It always seems to be the same dawn every morning out here in the North Sea in December; there is no break in the cold grey sky, always the same cold grey-green sea, always the same cold east wind. We go up to the wheel-house. The skipper lights his pipe. The ship still rolls. We



Тне Соок

are going full speed ahead, but with the heavy trawl astern we seem to make little headway. At noon we again make our way aft, with care. It is dinner-time. Much the same routine as at breakfast. However, we are in a more talkative mood now.

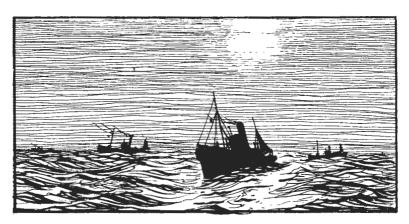
As we get through huge platefuls of roast beef, potatoes, and beans the mate talks about mine-sweeping in the early days of the War. The first hand is a silent little man. I discover afterward he belongs to the Salvation Army. One day he said he could play the concertina, but he doesn't join much in our conversation. We finish the meat course. The cook puts a plum duff on the table. This reminds us it is Sunday. There is nothing else to mark the days when one is trawling in the North Sea; all are exactly alike, except for this

one difference—on weekdays the plums are left out of the 'duff,' and we have jam or treacle instead! This is our midday meal. Then we turn in to our bunks for a smoke and a sleep before the next haul. When you feel cold during the afternoon there is always a mug of tea to be had for the asking—sweet, strong tea, made with condensed milk. You may dislike it at first, but you get used to it.

On the short winter days it gets dark soon after four, and the long night sets in early. But the work goes on without a break, haul after haul every five hours or so. We have our last meal at six. It generally consists of fresh fish, bread and butter, and tea, the same as at breakfast. These meals which vary so little yet mean so much rather tend to increase the monotony of the life. One loses count of time.

We have been fishing night and day without a break for a whole week. Every five hours or so the gear has been hauled up and shot again as soon as possible. The same monotonous round of hard, painful work day after day! It is six o'clock in the morning, the sky and sea are still black. There is as yet no sign of dawn. We have just hauled for the last time, are due back in Grimsby this evening, in time to catch the tide at the flood. Our course lies nearly due west, and we are now steaming full steam ahead. No longer is our speed kept back by the heavy weight of the trawl we have been towing for the past week, and the Empyrean seems to be cutting through the water. After breakfast there is a certain amount of cleaning to be done. The wooden boards forming the pounds on the deck forward of the winch are taken away and packed together amidships, and the deck is washed down and made to look fairly clean. Do not imagine anything like the condition of

a battleship's or liner's deck because I use the word 'clean.' No, there are infinite degrees of cleanliness. The modern steam-trawler is never clean. There is no time to bother about brasswork or paint in these days. If a mate told his deck-hands to holystone the deck or polish up the brass rails they would possibly tell him she wasn't a yacht.



TRAWLING ON THE DOGGER BANK

One of the great evils of the present-day condition of the trawling industry is that neither skippers nor crews have the old personal interest in, or love for, their ship. She is to them little more than a sort of moneymaking machine. When the companies grow so big as they are now you come against some of the worst evils of modern industrialism.

On the horizon there are two or three other trawlers, also steaming in the same direction. All the week we have had them in sight.

During the last afternoon all hands find time to shave and tidy themselves up. It is difficult to recognize some of them. Heavy fearnought trousers, blue guernseys,

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and thigh-boots are taken off, and cheap, ready-made, shore-going clothes are put on. About four o'clock we catch sight of the Humber Lightship. There is a haze over the land, and the low-lying coasts of Lincolnshire and Yorkshire are quite invisible. In a few minutes the tower of Spurn Head lighthouse appears. Looking over the bows, I notice the sea has become quite muddy and yellow. It is the refuse of all the many rivers which empty themselves into the Humber.

BACK TO PORT. The sun is setting now behind a bank of mist as the Empyrean steams past the Bull Lightship. By the time we are in the roads and in sight of the lights of Grimsby it is quite dark. We drop anchor, and the engines are silent once again. There are perhaps thirty odd trawlers already anchored around us, all waiting to come in. Until quite recently there used to be a wild rush to force and push in through the lock-gate as soon as the signal was given. But so much damage was done to the vessels that a system of 'divisions' and 'numbers' has been arranged, and you just have to wait your turn, and come in when you are told. In the darkness it is difficult to distinguish one trawler's lights from the others. We, too, await the signal from the lock-gate. We are No. 4 of the second division, and, having found Nos. 3 and 5, take up our position between them.

Very slowly we creep up into the lock. There is the same shouting and hooting of sirens as when we went out over a week ago. I stand on the bridge and watch the scene. There is the same crowd standing on either side of the lock-gates. We pass and enter No. I basin. Bump! Crash! A large Iceland trawler grazes our port side. "Why the devil don't you look where you're going to?" shouts our skipper, and we barely escape

knocking into another vessel's stem on our starboard. "What is he trying to do?" he exclaims to me. At last we come alongside the pontoon, and almost before the ropes have been made fast all hands are over the bulwarks and away. There is no stopping aboard a

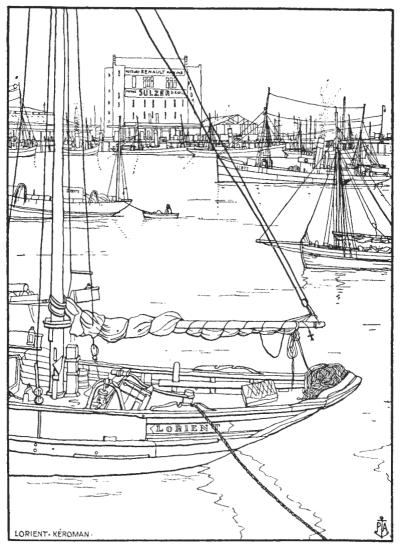


LANDING FISH AT GRIMSBY

moment longer than is absolutely necessary. In a few moments the skipper and I follow. We pick our way cautiously through the dark, deserted fish-market and muddy streets. At the dock-gates a crowd of women and children are waiting. "Is the *Emperor* in yet?" "Have you seen the *Rowena*?" "Can you tell us if *Perihelean* is in?" they ask us. I am once more brought face to face with the shore-life of these men with whom I have lived for more than a week at sea. Here is the vision to which they look forward; this is what most of them dream of those cold, raw nights on the North

Sea, when most of the world is sleeping and they are hard at work with the trawl. The glare and warmth of the many public-houses, the cheerful brightness of the cinema, the rough horse-play of the lads and girls in the Market Square while the band of the merry-goround blares out its tunes and whistles shriek, these are the realities, these are the things that count for them. To-morrow night they may be at sea again.

Social Conditions of Trawlermen. I have tried in these notes to give an impression of the normal conditions of life on board an average twentieth-century North Sea steam-trawler. A few other details about the trawling industry may be added. About half the men and boys employed in the sea-fisheries of the United Kingdom to-day are in trawlers. Grimsby is by far the most important of all the trawling ports. About one thousand steam-trawlers are registered there. On an average nine months in the year are spent at sea by the trawlermen. Two or three days are allowed ashore between each trip. The personnel of a steamtrawler crew is not drawn from a seafaring community of men whose ancestors have been fishermen for generations, as you will find in Brixham, Yarmouth, and the North of Scotland, although provision for their technical education is now provided in all the chief ports. Many of the older generation at Grimsby, Hull, or Fleetwood are the sons or grandchildren of lads who went to sea from reformatories or industrial schools during the last two decades of the nineteenth century. In addition to these are a large number of casual labourers, men who have drifted to these big trawler centres on the certainty of picking up a job. These often sign on as cooks. The temporary and constantly shifting element in a steam-trawler's crew has a noticeably



TRAWLERS AT LORIENT-KÉROMAN

demoralizing effect. There is not the same esprit de corps, or love or pride in the ship, or interest in the work, such as one finds among the crews of the Scottish herring-drifters. The ambition of most skippers and mates is to retire from the sea as soon as they can afford to do so. But few have any idea of thrift. They live recklessly when they are earning 'good money.' The life of a trawler fisherman is not an enviable one from any point of view. Bad conditions at sea, excessive hours of labour, no Sunday rest, the brutal commercialization and gigantic development of the white fisheries, together with the fierce rivalries of the trawler-owners themselves, combine to produce a state of things that is not encouraging.

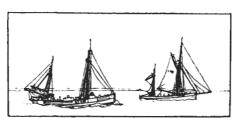
TRAWL FISHERIES OF OTHER COUNTRIES. Before leaving the subject some reference must be made to the trawl fisheries of other countries.

In France you will find sailing-smacks in the ports of Grandcamp, Port-en-Bessin, and Barfleur, and along most of the coast between Havre and Boulogne. Dieppe, Fécamp, and Boulogne are the chief bases for steam-trawlers, many of them being larger vessels with a more numerous crew than the British vessels fishing in the North Sea. Since the opening of the new harbour at Lorient-Kéroman, in Brittany, the steam-trawlers fishing off the coast of Morocco and Rockall Bank have been landing their fish here. French steam-trawlers of 900—1000 tons from Saint-Malo are also engaged in cod-fishing off Greenland.

Geestemunde, Cuxhaven, and Nordenham are the chief trawling ports in Germany, in all of which a very modern type of steam or motor vessel has almost entirely replaced the old sailing-smack.

Turning to Holland, a country which at one time

possessed many trawling centres—Scheveningen, Katwick, Nordwick, Maashuis, Vlissingen, etc.—where the flat-bottomed broad-beam luggers used to be hauled up on the low sandy shore, the industry has now been gradually concentrated to the modern and up-to-date port of Ymuiden, from which white fish is shipped to all parts of Northern Europe. Portugal has important trawl fisheries, Belgian trawlers fish from Ostend, Italy has started trawl-fishing in the Mediterranean. Spanish fishermen still use a species of the old beam trawl, but in the other countries of Northern Europe white fish is more often captured by means of the drift-net.



MOTOR-TRAWLER AND SAILING-SMACK