1  A BREATH OF SEA AIR       PAGE 1
2  LEARNING THE ROPES        14
3  NET OVERBOARD            26
4  THE CONCRETE DECK        42
5  MARKET WHIMSIES          56
6  ROUNDFISH                70
7  THE FLATTIES             97
8  THE PRIMITIVES           119
9  THE HOME RUN             133
10 PAINTED BRIGHTLY         153
11 SEINING                  165
12 THE HERRING              179
13 RINGING                  195
14 DRIFTING                 208
15 THE GREAT LINES          222
Acknowledgements are due to the kind criticisms of Professor C. M. Yonge, C.B.E., F.R.S., which have allowed the author to correct errors previously overlooked.

B. S.
CHAPTER ONE

A BREATH OF SEA AIR

JAN reached the sea at Calais. He crossed the Channel, disillusioned at first then gradually seasick till he had spewed out the better part of a bad supper within sight of England’s twin coastline of chalk. He did not understand the pastry-light skipping of these little waves. They danced their one-steps in his stomach. White capped and blue eyed as the sea was on that May day, it was worse than anything he had been led to imagine from descriptions in Conrad’s Polish prose of South Sea typhoons, cyclones and calms. But the Polish language was weak in marine terms: Conrad could not be translated into his own tongue.

Jan had been educated before the war when Poland’s little fleet of fishing vessels was less real and perhaps more glamorous to a schoolboy than the films of Garbo or the uniforms with high hats. Or maybe he had been educated during the war and his only trade was sniping, his only art the management of an ambush, his only ambition to kill more Germans. At any rate, he had been educated. There was nothing left for a schoolmaster to teach him, and he refused to learn the catechisms of a Commissar.

He had thought his health feeble before he boarded the ship. He was an invalid by the time he disembarked. The authorities in charge of Polish refugees recognised this and shifted him from a hospital in the Home Counties to a convalescence centre on the main island of the Orkney group. It was while there that he first became aware of the sea as a way of life. It brought back his homeland to him. For hours he would watch the Orcadian inlets
Living Silver

shimmer in a grey light; and small spots of rain drizzle down to collide in circles on the salt gloss of their surface. Saint Magnus replaced Saint Stanislav. The long low shore, continually but unexpectedly interrupted by another encroachment of the North Sea or the Atlantic, substituted for the curving yellow sky-line of the Mazury Lakes where the crosses of obscure but sanctified figures broke in remote disorder like inarticulate squiggles. Now, though, it would be the mast of a ship that would serve as a sign; the St. Clair’s, perhaps, signifying a cargo of holiday-makers, brandy, laughter, and spew over the side; or a trawler, slow on the horizon so that when he looked at it through Frank’s binoculars he could observe the dot of a fish-basket near the masthead and he would know that its nets were down and would wonder what it was catching; or, when he went round to the south west on a clear day, it would be the rotting masts of two wrecks, sticking up like aerials above the grey rocks of the Skerries – but he needed the high ground then, so as to overlook Flotta, and he still wasn’t strong enough to do much climbing.

Nevertheless, when the weather was calm and the forecast good, Frank would sometimes take him out to have a look at the creels. Frank was not a fisherman. There aren’t many fishermen on the Orkneys nowadays, but there aren’t many Orcadians who can’t handle a small boat in the fiercest shallows. They are farmers who treat their coastal waters as though they were so many acres of extra pasture. But it is not sheep that graze there, not milk-laden cows that can be fetched home in the winter and kept in a byre to calf. It is the lobster.

Frank had a rowing boat, one of those long narrow ones that the Faroese delight in, painted white, with a trim neat look. It was not an ideal fishing vessel, far too liable to tilt when a man strained over the side in an effort to disentangle a rope that had fankled with the rocks on the seabed. He kept the craft because he had picked her up for a song, because a new and better boat would be expensive and because, in spite of all her disadvantages, his seamanship and sense of balance could always get the better
A Breath of Sea Air

of her. Once, it is true, in the flurry of a squall, she had capsized, but Frank had been within reaching distance of a rock shaped like an elephant and he had been able to drag her into this and relaunch her upright.

And so it happened that Jan would be shaken into life by his friend’s calloused hand at half past four of a morning. Wearily at first, with the splinters of his shattered sleep still sticking in his skin, he would splash water over his night grown beard, dress in trousers and a coarse sweater and trudge downstairs to a cup of tea that had already grown stale in the pot. Once outside, the beginnings of the sunlight acted like a cool ointment spread thinly over the whole of his body and, by the time he was seated, sea-booted, in the Maypole he would be glad that he had come.

At first, because of his status as an invalid, Frank had allowed him to do no more than a turn at the baling cup but, as he grew stronger, he began to take to the oars. It was too long a stretch for any man single-handed, especially when it was only a preliminary to a full day’s work in the fields, and Jan was relieved to feel that his weight was no longer a mere encumbrance on a pull that sometimes ran into four miles or more. Frank kept swearing that he must get a motor fitted. He swore but he did nothing about it, not until he broke his thumb in a fall from a haycart. Even that only made him swear still louder. But he bought an outboard motor.

They crept out slowly, and up the coast, groping between the rocks, swerving from inlet to inlet, touring the buoys to which their creels were tethered. Gingerly, then, hanging over the starboard side afraid that the boat would turn turtle, Frank drew up every rope, rhythmically, hand over hand. The surface of the water about them moved up and down with the quiet regularity of the breath of a sleeping baby. Only against the coast, when they listened for it, came the snore of foam on rock to remind Jan that he was now dealing with a fully adult sea. And then he would catch sight of the hovering oblong, submerged but slowly rising, and all thought of listening to anything would be lost.
Living Silver

Was there a lobster in the trap? or was that glint their untouched bait? All other senses disappeared. He became a mere machine for looking. But even his eyes seemed swallowed up in anticipation, the archetypal anxiety of a hunter when faced with the hope of prey. He had eyes for only one thing, the emerging creel.

Like all others who have ever looked at it, Jan was recurrently surprised that such a primitive gadget was an effective snare for anything. The lobster’s stupidity, he thought, must be unequalled among animals. He could understand quite well why they walked into the trap, baited as it was with a fresh herring, but why they didn’t simply walk out again was more than his imagination could construe. There was certainly nothing to stop them and Frank had often assured him that some of them realised the fact and escaped. Yet it was quite certain that the majority never left a creel except in the hands of a fisherman. It was a puzzle.

These lobster creels had a base of wood, about an inch thick, and three hoops of wood were inserted into it. Three rafters of a similar slimness intersected the hoops and were lashed fast to them. Around this skeleton the fine meshes of a tanned herring net were draped until the whole thing looked like a doll’s version of a Nissen hut, a delicate lace substituting for corrugated iron. It stood a foot and a half high and was well over two feet long. Two circular doorways threaded into it but these too were made of net, tunnel-shaped anterooms of netting inserted into the net walls. Through these eyes, so reminiscent of the centre of a spider’s web, the lobsters had to enter if they wished to feed on the bait. Although they lay on opposite sides of the creel, the eyes did not face one another for then it would have been possible for their prey to walk straight through both of them and out on the other side. The base of both eyes was made of a coarser-textured but more fine-meshed netting. A lobster which had climbed through one of them would descend into the main chamber where, his hunger satisfied, he usually remained until Frank and Jan came to release him. There was no closing device
A Breath of Sea Air

at the entrance so, that, if it were possible for him to enter, it was equally possible to escape. The only difference was what seemed to be the purely psychological one that the entrance tunnel tapered inwards so that it looked narrower from the inside than the outside, narrower and somewhat higher. But Jan doubted if the psychology of lobsters was subtle enough for them to appreciate such differences. It might be a little more difficult to get out than to get in, and there were probably one or two slight technical problems of leverage, but a lobster that made a sensible all-out attempt on the entrance to this trap would be certain to escape. His own final theory was that, after a good meal, the caged beast felt like resting and had the lobster equivalent of forty winks. By the time he woke up he was already being hauled, hand over hand, at the end of a rope through the water and towards the boat.

It had often been rumoured that these Scottish creels were ineffective when compared to the wicker pots used by English lobstermen. A glance was enough to tell some reformers why the round baskets, that looked like a cross between a bee-hive and a cage in the zoo, were traps from which no large shellfish could escape and to which they would all be attracted. But, when Charlie Tulloch had come up north from Devon he had brought a large fleet of them with him and, though he had had the help of one of the best of the young Orcadian fishermen, his landings from the grounds around Hoy had been only slightly worse than the average for the season. And then, of course, there had come a gale, from the south west this time, and the whole Atlantic had gone exploring every cupboard of the western coasts, and a lot of stone shelves had been torn down. It so happened that Charlie's pots were moored on the west side of the island. Two of them survived. The rest were milled down into sawdust, and he couldn't afford to replace them. So Charlie, too, had taken to the Scottish creel. It was cheaper and easier to make. And he, at least, was satisfied that, in spite of the simplicity of its oak and hazel framework, it caught as many lobsters. Nevertheless Jan
Living Silver

hankered after the wickerwork of a Cornish pot. As fancy as it was homely, it reminded him of the ornate domesticity of an iced cake at a birthday party. Folk art as well as folk craftsmanship had gone into its design. The Scots job seemed a drab utilitarian affair by comparison.

But it was utilitarian; and Frank, whose temperament was very similar, contented himself with the drabness. Though he fished only twenty creels he often collected more than ten lobsters a day and that was good fishing for an amateur – even an Orcadian amateur. For the Orcadians were expert amateurs, their coastal waters among the richest, as well as the most dangerous, in the world. Usually Frank manoeuvred his traps singly or in four fleets of five creels each, but sometimes, when a particular bay seemed rich in lobsters, he would have all twenty stationed together, fishing in their level-bottomed way within ten fathoms of one another.

As he watched the first oblong articulating itself out of the green dimness Jan’s excitement dispelled into a sense of disappointment. There was no lobster, and the bait was blousy with escaping gases. Frank grunted in his unworried fashion. The whole business of fishing was evidently a damned nuisance. He hauled the creel aboard, edging some cold water down into the well of his sea-boots as he did so. ‘Water’s hellishly wet.’ And he undid the knots that tied the netting to one of the end hoops and scraped out the slimy putrescence that was sticking to the base board. A filthy grin of disgust overspread his face as he rinsed his hand in the surrounding water. ‘Pass me another herring.’ After he had placed the bait on the floor of the creel and re-tied the end flap, Frank lowered the apparatus even more gingerly than he had raised it, hand over hand, studiously edging out the corks that held each segment of rope taut and vertical. He was a careful man by nature who preferred that things be kept in their proper place: and the proper place for a lobster creel was sitting evenly on its broad backside at the bottom of the sea. Not heads up, with the cotton net fraying among the gravel, not on its
side so that a lobster could hardly reach the eye through which it must travel if it wanted to be boiled alive, but plunk and level on its wooden bottom, with stones arranged for ballast to hold it in place.

The first five creels were all the same. But Frank was a patient man. He did not shift his gear. For four days now he had not caught a single beast among those particular shallows and, if the trap were empty again tomorrow, he would have to make a change. But he knew the ground, and he knew it as a good ground, and he was willing to gamble a little more.

Jan rowed on, about a quarter of a mile further round one of those garish headlands of reddish stone that always struck him as resembling a fossilised version of the Polish summer. He rowed on into another tiny bay where they met with further disappointment. Sometimes the bait was gone, nibbled away by small fish perhaps, and the disintegrated bones washed out by the movement of the tide. Or, perhaps, the sea-lice had got it. In any case, there was no lobster, not until the ninth creel surfaced.

It was a large animal and, in spite of its obviously ferocious appearance, there was a kind of tranquility about it, the peacefulness that comes from stolidity and the lack of fear. It had that deep-centred slowness of a business magnate who can afford to take his time because his business is big enough to get the better of time. The weak must be impatient. They must work fast. They must anticipate the moves of the market. But the strong man creates his own market. He can choose deliberately. And this lobster was obviously very sure of itself. There was nothing in the sea that could injure it except for the parasites in its gills, and only the barnacles that made it look like a heavily encrusted hunk of blue rock could hinder it. But it would lose them when it next shed its shell and underwent ecdysis.

Frank opened the flap that faced the five-ribbed fan of its tail. Before it could turn, his hand was firm on its back and he had dragged it into the air. Its claws performed angry contortions. Its curved abdomen flapped helplessly. Nothing could dislodge
the human hand that held it up tilted in an alien element. When he had first witnessed this ordinary struggle, Jan had been alarmed. The first time he had engaged in it he had been bitten. A sudden terror of the life of the strange beast in his hand had overcome him so that his grip had slackened and the lobster, in its turn, had held his hand. The pain had been excruciating. He had tried to pull his manacled thumb away, but Frank had yelled: ‘Don’t pull. Just hold its claw out straight, so that it can’t get the other one to you.’ So Frank had held the lobster, and the lobster held Jan, and all three were fastened in a strenuous stillness. The free claw of the shellfish cavorted with slow menaces within half an inch of the agony that seemed to have spread itself over the whole volume of his trapped hand. Occasionally Frank would whisk the new danger away, clouting it, but not too hard, with a swift blow. Always it came back again, and the pain was beginning to surge into Jan’s arm. He remembered wondering if the Nazis had ever used live lobsters as an instrument of torture. This pain could go on forever. It would not kill him. He noticed a movement in the claw that held him. ‘Quick’, shouted Frank, and Jan pulled and his thumb was free. Frank then explained how impossible it was to escape the grip of a lobster without either killing the beast or pulling out its claw at the root, four joints away. Unless, of course, one was patient and waited until the animal tried to change its hold. The scissors, the pincers, the jaws of its claws would loosen for a moment or two, long enough for a man to react. If he did not take that chance then the lobster had to be killed, for it would not try a second time to find a more effective grip, and it would die before it let go of a piece of potential prey. Or its whole leg had to be torn out and it might as well be dead for all the money it would then be worth.

Jan supposed that Frank too must have had the worst of it at some time, but he could never find any hint of such opaque memories in the severe lack of expression with which he extracted lobsters from the creels. As far as Frank’s looks could tell him, a lobster was no more dangerous than a damp and rotten
piece of wood. It was with just such an interest that Frank now held the lobster towards his friend; and Jan, after fumbling for a moment or two, extricated a thick elastic band and clamped it deftly over one of the lobster’s claws. As he did so, the other swung round, slowly, like a submarine; but it was still a good two inches away from his hand when Jan had finished. Then he was safe. He grabbed the menacing claw and pressed its two arms together, then bound them in place with a strip of linen. The other claw too would have to be secured more firmly, but that could wait until the trip was ended. Sometimes, when he forgot that Jan was with him, Frank would fasten a capture between his thigh-booted knees and bind both claws with casual intrepidity. But Jan was so fond of his elastic bands that Frank let him use them.

Frank put the catch on the floor of the boat, and Jan was surprised by the dull, humorous light in his eyes. ‘And what shall we do with her, Johnny?’

Jan didn’t know what he was talking about. Then he remembered. He lifted the lobster which was still struggling as hysterically as a lobster ever struggles, and he folded back the inturned abdomen. It was a mass of berries, coloured blue-green and clustered thick, and small and round and living.

‘Well, I don’t suppose we can go back without anything.’

‘Neither do I. We’ll see what happens.’

It was in this way that Jan came to break the first law that he broke in Britain. They did get another four catches in the remaining creels, but two of them were pretty small, and one was another berried female. So Frank decided that one of the pregnant ladies would have to be ‘brushed’. Only then could he land her and fetch a price at market.

Jan knew very well that there was a law against it. Frank was one of the few fishermen who habitually observed it and he had explained the excellent reasons for the governmental bar on the landing of berried females. Each of these ‘berries’ was a fertilised egg, an embryonic lobster; and, if one waited for no more than a
few months, they would all hatch out into microscopic and free-swimming larvae that would promenade the surface waters of the North Sea for a little while before they changed their shapes into the shape of a lobster and descended to the bottom where they would take up their final residence. But the waters of the surface were swimming with predators, each of which was much more powerful than the baby lobster. Hundreds of the ‘berries’ would bud into beasts that would survive for the merest mirage of a lifetime. They would be consumed by such earnest hordes of carnivores as the Arrow worm, the Salps, and the Herring, all of them less valuable to a solitary fisherman than a solitary lobster. Very few of a female lobster’s eggs ever survived to become, in their turn, the mothers and fathers of another season of eggs. If, therefore, the fishermen were to destroy their potential prey at the point of its greatest concentration, on the body of the fertilised female, there would be every likelihood of the whole species being totally exterminated. If not that, it might well become so rare that a further fishery would be uneconomic and unthinkable. It was for this reason, in order to protect the true interests of lobstersmen, that the Government introduced legislation to forbid the landing of berried females.

But the eggs of a pregnant lobster are attached to hairs on the cuticle on the legs beneath her abdomen, so that they can easily be scraped off by an enterprising fisherman. No sign remains. The animal is clean, and can be sold at the normal price on the normal market. As the intelligence of the Government’s intention spreads among the men in the boats, the immediacy of their self-interest confronts them ever more clearly, and the odd pound or two made off a ‘brushed’ lobster pales and dwindles before the prospect of mass unemployment. But still, as Jan well understood, there are the situations. There are the times when the tangible temptation is too great for any prospect of future earnings to interfere with their day’s takings. And the worst of it is that these situations are especially frequent when the catches are small, when the population is low, when there is most need
A Breath of Sea Air

for the live youngsters, when the maximum of damage can be done by a few flicks of a knife.

And this was just such a period. They brushed the larger of the two ripe females and set off back within punting distance of the ragged coast toward the little jetty that Frank had erected on the shore of his croft. Jan jumped ashore and tied up the boat while Frank, in his sullen dissatisfaction unloaded the morning’s take into the three wooden containers that were tethered, floating, to his jetty. They were quite large, one of them almost six feet square and over two deep, while the other two were somewhat smaller. Through the gaps between their boards the Atlantic water whispered softly over the living animals that had to be sold alive. Here Frank would keep his catches, sometimes for as long as three weeks, feeding them when necessary on herring, bits of cod or whole whiting, until he had enough living lobster meat for it to be worth his while to make the journey to Kirkwall where he found his market. That was why these wooden cages were so large. He could never tell how long a lobster would be in residence nor how many lobsters would have to be imprisoned together. And the lobster was a cannibal. Even when their great claws were tied they could sometime kill one another if the pressure of population was sufficient to prevent them from each seeking a solitary and shady underwater territory, large enough to allow each of them to breathe in peace, with a quiet swishing of the third maxillipedes, and to perambulate occasionally, though very slowly, like proprietors over their home farm.

Whenever Frank had about twenty decent sized beasts he would ask Jan to pack them and Jan would take out the boxes that were kept in the byre, put a layer of wet wood shavings on the floor of each of them and then remove the lobsters from their floating crates and pack them close together in these carrying cases. Each box was about nine inches high, four feet long and two and a half wide. When the lobsters were properly packed two cases were, therefore, usually all that was needed to take Frank’s whole cargo. Once the lobsters had been put in the boxes more wood shavings,
all soaking moist, were layered over them and a lid was hammered on top. This lid, like the floor, was pierced with nine half inch holes. These allowed air to enter the packing boxes and prevented the beasts from being smothered, just as the wood shavings, impregnated with water, kept them from desiccation. Thus packed, the lobsters would remain alive for quite considerable periods, sometimes well over a week, though that could not be guaranteed. They were certainly ready to endure the short journey to Kirkwall where Frank could disemarrass himself of them. Their further care was in the hands of the wholesaler, who bought most of the Orkney lobsters and had the difficult job of transporting them safely and economically, by plane or by ship, to the great markets of Billingsgate and, sometimes, Glasgow. Jan's job ended when his packing cases reached Kirkwall.

It had been a good season, the one Jan spent with Frank. The softness of the summer sea had rarely been bruised white by the gales that sometimes interrupt the operations of the lobster fisherman. Only twice had Frank been forced to go out in the thick of a big wind and collect the empty traps lest they be battered against the rocks of the coast. And prices too had been high, though that reticence which Jan later found in all the financial confidences of fishermen, made it impossible to get more than the vaguest idea of what Frank's earnings had been. But he did know that there had been hardly any losses. Only one creel had disappeared. They had raised the rope to which it had been tethered. They had been watchful, hopeful, careful. But, at the end of it, there had been only a ragged patch of frayed strands, no lobster, no creel, and no hint of what had happened. 'The damned fish must be going on a diet of cotton.' They had dragged the bottom with part of a beach seine net but they could find no trace of the vanishing creel.

And it had been just such exciting little mysteries among the lukewarm summertime of the Atlantic that had started Jan out on his love of the sea and had conquered his queasiness and his memories of the English Channel. But though he had decided
A Breath of Sea Air

that the sea was a kind place, its transparencies more intriguing than the opaque soil, he could find no practical grounds for hoping that he himself would ever be able to live the seafaring life that he was beginning to covet. He had no money whatsoever, not even the little capital that would be necessary to set him up in business as a lobsterman. And, anyhow, lobsters would not, by themselves, provide a sufficient livelihood, not, at least, if they were fished on the modest Orcadian scale. These fishermen were farmers and they depended upon their crops for the better part of their subsistence. Their sea was a luxury though it provided them with further luxuries. And Jan had neither the skill nor the experience to hope for employment in any other part of the fishing industry.

And yet he had to find something to do in this strange new country where he was just beginning to learn the language. He had to learn to support himself all over again, just as a man who has been crippled for a long time has to relearn the art of walking. Luckily for him, though historically it was one of the most unfortunate and miserable of modern facts, he was far from being alone. The exiled Polish authorities were trying desperately to refit thousands of ex-soldiers to civilian life in an alien country. It so happened that they, too, thought of the sea and of the fishing industry which was drastically undermanned in post-war Britain. With the co-operation of some Scottish fishing communities they set up a school for trawlermen in Aberdeen and began a propaganda campaign to persuade their land lubbering compatriots to conquer their lifelong distaste for the foreignness of cold salt water. To these authorities it came as a pleasant surprise when Jan wrote enthusiastically from the Orkneys asking if he would be eligible for a place in this academy. They hurried to assure him that he would, and he was soon on his way to Aberdeen.
CHAPTER TWO

LEARNING THE ROPES

THE idea of school was far removed from the idea of the sea. Jan soon realised he had taken neither seriously. What he had expected was that somebody would take him aboard a ship, throw a net over the side and then admire the diligence with which Jan stowed the enormous catch. He had expected perhaps, to be wet and cold, but he would become weatherbeaten in a few hours and save the lives of the whole fleet by an adroit piece of navigation. But it was not at all like that. Life is always so surprisingly ordinary, even the most exotic forms of life.

He was therefore subdued by the stuffy room with its big ornate desk and the man who sat behind it, succeeding in looking both woolly and immaculate as he said: ‘There won’t be time for a complete course, you know. Our time is on the budget and we’ve only got three months to let you fellows get the hang of the trade. So it’ll be hard work. And you’ll have to pick up a good deal when you get to sea yourself, if you ever do get to sea. But there’s a lot of money in trawling these days. Our chaps seem to have left the sea. We hope you’ll be happy. Mr Goldie here will take you to the school itself.’

And Mr Goldie did. ‘You’ll have to learn what a hard lie is,’ he whimpered somewhat obscenely, quietly, as though the words were dripping from the glitter of his spectacles.

They called him the Goldfish, Jan and the ex-schoolmaster and the ex-colonel and the ex-pickpocket and all the other potential trawlermen who had been swept together by the net of inter-
national intrigue and disaster. They were all Poles and several of them knew hardly any English whatsoever, so that Mr Goldie and Mr Finch and Mr Buchan often found it very difficult to impress them with the most elementary information. It is not easy to explain the difference between baiting by the third and simple fly-meshing to somebody who doesn’t know what you mean when you say: ‘This is a bit of twine.’

Then, of course, there were the difficulties of personality. The colonel was convinced that he should not be expected to make a knot in anything less decorative than a bow tie. The pickpocket found a customer for the ‘odd’ bales of twine that were lying about the net-room. The school-teacher refused to eat Scotch Broth and proclaimed that he couldn’t bear the smell of fish. Jan found that he had more experience of the sea than any of his fellow pupils and even he had never been aboard a trawler. The instructors, old sea-dogs, rather fleabitten sea-dogs, delivered their lectures in a vocabulary of obscenities that contrasted magnificently with the elevated balderdash of the official prospectus. And yet, long afterwards, Jan came to the conclusion that this strange school was the best preparation he could possibly have received for life aboard a trawler.

They began with a sketchy course on seamanship. The Goldfish was particularly anxious to exhort them not to drink the alcohol that is locked in a ship’s compass. ‘It blinds you, you know. Old Jock Jamieson who had as good an eye for black water as any herring skipper in Peterhead got blind as a bat on one night’s boozing. Keep away from the compass alcohol. It blinds you.’ The Goldfish was inclined to be repetitive, sucking the words back into his mouth as they fell with a kind of slobbering sonority from the lenses of his glasses.

He did mention things like flashing lights, regular ones and irregular ones, and lights to port and lights to starboard, and the difference between the magnetic north and the true north. He explained how to take a bearing and how to hold a wheel. ‘Try to keep your stomach away from it. I once knew a chap had his
belly ripped open when the wheel gave a bit of a jerk, old Dodge Sinclair it was. These spokes can give you a nasty bruise. They can rip your belly open.' But they all soon realised that they were not really expected to know much about navigation. That could be left to the skipper. If he got drunk then the mate would probably stay sober enough to take over. And, anyhow, with all these new aids to navigation, the ship could almost be expected to sail herself.

One of the pupils had been, of all things, a naval commander – though his duties had never permitted him to go to sea – and he was full of the notorious stories of the bad seamanship of fishermen in small boats. 'And what would the Goldfish do if his little boat got out of sight of land? He'd drown.' But it so happened that the Goldfish overheard one installment of these rhetorical questions. He slobbered out an answer that showed something of the verve usually hidden behind his drooling: 'And no, I wouldn't now. I'd probably do the same as these big cruiser captains do when they catch a glimpse of a headland in the distance. I'd faint dead stiff. And then,' he added reflectively, 'I'd get on with the job.' Years later, Jan was able to look back on that comment and see that it was just. For, although many fishing skippers have only the flimsiest knowledge of navigation, they can outmanoeuvre most naval officers when it comes to inshore seamanship. The grace with which they park their rusty steamships at the side of the fishmarket, park them as easily as a motorist might park a Morris Minor, contrasts vividly with the berthing of a small naval ship. Even a corvette or a frigate can sometimes look as though it were in the centre of a spider's web of ropes, with winches groaning and bollards creaking, the entire crew rushing about and jumping and shouting, the captain on the bridge and the first officer on the forecastle exchanging worried glances, while the vessel itself, deaf to all their endeavours, remains an obstinate six feet off from the quay. Aboard a trawler there is never any such fuss.

Yet the handling of a ship is one of the least of the fisherman's
Learning the Ropes

skills, and it was certainly not the one that was star-featured in Jan’s training. For six weeks his working life was centred on a long low room, rather badly lit and smelling strongly of dry dust and oakum. The walls were ornamented with immense hooks and wooden poles that sometimes reminded him of the parallel bars in a gymnasium. Instead of childish athletes, however, it was a skinny population of knotted string that hung limply, and usually shapelessly, in all the postures of exhaustion. Long wooden needles were littered aimlessly over the floor, needles that were like flanges, that had only a mild convergence of their sides for a point, that were cut open like a window frame and in the frame there was always a narrower rod of wood. Jan learned how to lace twine around this rod and wind it further, yard upon yard of it, about the needle until it became a fully loaded spool of sisal.

Then he was taught to lay a line of bights along a rope or a rod by a series of clove-hitches. That part was simple enough. What was difficult to believe, or even imagine, that a lame series of stringy semicircles could possibly be the foundation of such a massive and highly-differentiated instrument as the huge trawl net that was suspended across the roof. The anatomy of this great beast was explained to him, its wings and its belly pointed out, its head-rope and ground-rope dissected, the functioning of the bag becket and the quarter-ropes clarified. He understood, or thought he understood what was being said to him. What he could not understand was that he, with the help of two of his fellow students, was going to make a similar monster, and that he was going to make it out of these bits of slack string that were dangling on the rope before him. And even the trawl on the roof was only a scaled down model of the Otter Trawl as it was commonly used on the ships that sailed from Aberdeen. And the trawl that he was going to make would have the full commercial dimensions.

Tony Buchan, who taught net-making, was as sceptical as his most modest pupils. He did not hold with this business of teaching a lot of foreign farmers the secrets of his trade. Had he been
able to get out of his wheel-chair and walk a deck he would gladly have left them all and their absurd ignorance. What could he do with a man who couldn’t tell a cod-end from a cod? These chaps would never be fishermen. They didn’t have it in them. Why the hell were they wasting his time, and a couple of tons of good twine into the bargain?

Unlike the Goldfish, Buchan did not practice rhetoric. His oratorical abilities would have gone down well in a Trappist monastery. Jan found this taciturnity even more disconcerting than the loquacity of his navigation master. The gnarled little cripple would explain a particularly tricky technique for double selvedging or norselling by saying: ‘It goes like this.’ A few twists of his rheumatic fingers would follow and the job would be done. If he were asked to repeat the illustration he took it as an accusation that he had been malingering and he would go through the motions again, but this time he would flick the spool and the knots and the net at such a speed that no single motion was visible to any of his onlookers.

Jan survived this individual tuition. He learned to tie the round knot and the flat knot, to mask the sisal thread into a lint of even diamonds, to bate away the meshes and so to narrow the lint, to crease it back up to its former breadth, to strengthen the selvedges at the side, to staple the lint to one rope, to marl it hard to another and even to practise such esoteric delights as regulating the ground rope frequency of the bights of the bolsh on the wings and those at the bunt of the bosom. He learned the whole vocabulary that fishing communities had evolved over their centuries of life in the isolation of villages. Their strange words became more familiar to him than the everyday language of the country of his adoption. For most of them there was no Polish equivalent. He could not translate them, even unconsciously, into his native tongue. He heard them only on the lips of Buchan, and each of them meant only a quick turn of the fingers, a flick at the needle, a pull. There was no possible misunderstanding. It sometimes seemed that only these words had meaning, and just because he
Learning the Ropes

couldn’t say what their meaning was he had to act it. He would find himself suddenly immersed in meaning as he watched a square of taut lint grow almost automatically out of the strands of twine that were whorled round the needle in his right hand. ‘Bate one on every third till you get it down to nine meshes. That’s right leave a fly-mesh.’ And he looked back at the loose mesh now fluttering free on the selvedge.

One day quite early in the course, he finished the square of his trawl. It was immense, two hundred meshes by three hundred. They were arranged in even lines, each with a bar of two and a half inches. He was very proud. He went to Buchan and told him of the feat. The old man looked distinctly incredulous but he came over to have a glance at the twelve hundred square feet of lint that Jan had managed to spread on the floor. ‘Aye, Aye. It’s no bad.’ And he wheeled his chair over it. Then he stooped down and tugged at a couple of the knots. ‘No bad at all.’ This was not the first time that the manual dexterity of the cripple had outwitted Jan, but never before had it enraged him. Before he had even noticed the knife he saw that his beautiful square had been ripped clean across the middle; about a dozen of the sisal bars sliced. ‘Many’s the bonny net has been ripped. You’d better learn to mend it.’ It was in this way that Jan first found that it is perhaps more difficult to mend a torn net than to make a new one. Yet nets had to be mended since they were continually being torn at sea and since it would hardly have been practicable to renew the trawl on every occasion that a few meshes snapped.

Buchan waxed almost eloquent in his description of how to cut the net in order to save as much of it as possible. The pattern had to be saved, the even diamonds restored. It was therefore necessary to cut away the raw ends of the bars, all except one at the head of the slash and one at the foot. These half bars, or halvers, were the beginning and end of the mending operation. Jan knitted back the trawl pattern from a tie at one of them to a tie at the other, and the lint was complete again. And again Buchan ripped it. The gashes became more and more complicated so that
whole sections of the lint had to be cut out and it became very
difficult to decide where to begin and where to end. Continually
he seemed to have creased an extra mesh to make up for a loser
in the last row, or one would be bated away by a take-up. These
mends were much more complicated than the straight making of
a stretch of lint. Yet he knew that his work at sea would be
concerned with mending rather than making and that it was
therefore necessary for him to have a thorough understanding of
the complication of techniques employed. And two weeks of
strenuous mending satisfied Buchan that he knew about nets. He
even began to be able to connect some of the fishermen’s terms
with ordinary language. To crease meant to increase. To bate
meant to abate. And so on. Things were becoming simpler and
his very mastery led to a new kind of dissatisfaction. He wanted
to learn more. He wanted the excitement of trying to answer
questions that stumped him. And net mending no longer supplied
them.

Buchan, of course, sensed his dissatisfaction, and he soon had
Jan installed in the rigging room, the first pupil of the school to
graduate to this final stage in net-making. The real interrelation
of all his previous patches of work now began to take shape and
the trawl net itself to acquire a personality totally different from
its constituent sheets of lint, the frail wide-meshed square, the
rough double-stranded fine-meshed cod-end. As the years of his
life passed this personality was to develop but even from the
beginning Jan thought of the trawl as though it were some
enormous dunce’s cap.

The dunce himself was fast asleep with the huge conical cap
resting on the bottom of the sea and being dragged along it by the
local bully. Poor dunce, he was a miserably skinny parody of a
man, his arms akimbo and his long long legs rubbing uncomfort-
ably at the ankles where they broke the surface of the water. He
was lying face downward so that his nose and forehead were
going to be scratched to a jelly by the chafing of sand or gravel.
His hands, that were boards of wood and chain and steel, dug
Learning the Ropes

helplessly into the soil in an effort to stop this damaging progress and hold up the ship. His chain lips and his bobbin teeth were also glued to the ground. But it was no good. The legs of taut wire that held him to the vessel were too strong and too fast for anything to break them. They dangled high above him, with him prostrated, ludicrously abject, at the mercy of their slightest pull. They had already driven his cap backwards until it lay on the nape of his neck at the back, or upper, side; barely touching the top of his head in front. And yet the dunce was unworried. He did not even bother to wake from his incessant sleep: for it was more valuable to him than the alert vigils of such wakeful intellectuals as the angler’s rod and line. He went on allowing himself to be pulled along the worst parts of the sea-bottom. Whatever fish or stones or bits of an aeroplane or fragments of wrecked ships happened in his way were promptly stuffed into the conical depths that sat, in symbolic emptiness, on the back of his head. He was far too sleepy and much too stupid to care whether they were valuable or not. Only if they were big enough to beat him in a fair tussle, break his nose and knock his magic cap from his head, only then did he leave them alone; and by the time he had given up his sleep-walking fight he was usually so battered that he had to be hauled aboard the ship where he would lie in a maudlin heap, a broken puppet, until the men of the crew had stitched
him together again. He was the opposite of the connoisseur: he was the opposite of intelligent. But his appetite and his unconscious activity made him a formidable adversary. He hunted fish with a combination of efficiency and mobility unequalled among sea creatures. The seine net, a more cunning strategist, could outfish him any day. Hooks and lines could range further over the bed of the sea and its surface. But the seine wasn't nearly so mobile and hooks could not decimate a whole population with such inexorable mechanical efficiency.

But the magic cap itself, the net in which the fish were trapped, of what did it consist? Of sisal thread, of course, knotted into diamonds, thousands of diamonds arranged in a number of separate panels. Two wings went in front and formed a couple of lugs. They were quite short and led back to the huge square that rested on the back of his neck. This, in turn, adjoined the batings, where the diamond meshes became smaller and the number of rows of them fewer until the narrowest part of their lint was attached to the thick double-twined small meshes of the cod-end. Thus, from above, if he had been permitted to glide over it, Jan would have seen a converging funnel, with outspread wings at the front, square and batings in the centre and the narrow bag of the cod-end trailing behind, its extremity bulging with the trapped silver of fish, as though it were an ornamental ball on the top of a dunce's cap.

Then again he would imagine himself buried supine in the ground, and looking up at the face of the dunce. The wings were now enormously elongated for the bottom rim of the net, the bosom, ran across the backward part of the square, about six feet below it. These wings were joined to the belly which tapered, like the batings, to the cod-end. As he watched a boulder would roll slowly over the thick ground-rope, lie dead in the centre of the belly for a few moments until an edginess in the ground would give it a dunt backwards, lie still again, then again roll over, till, at the end of half an hour, it was wedged static among the thick black meshes and living silver fish in the cod-end. As it lay, in
one of its pauses, on the belly of the net these fish would be flicked past it, one at a time or in small bunches, as dead leaves are whisked away by a light breeze in autumn.

On the inside of the net, suspended between the batings and belly there was a simple arrangement of flapper and pockets which acted as a non-escape valve to keep the trapped fish in the bag, though it was unlikely that any of them would have the sense to look for the obvious way out. As Jan afterwards discovered, the efficiency of the trawl depended largely upon the stupidity of the fish it caught.

But no fishing instrument is made of net alone. The panels of lint have to be fastened to one another by ropes or wires. They have to be tugged into shape by some kind of frame, before they can be held fast in their fishing position. This is the business of the rigger and it was to this that Jan now turned his attention.

Primitive trawls had, as it were, a backbone of wood, a stout spar that lay on top of the net, in the position now occupied by the upper edges of the wings and the forward end of the square. It was on these beam trawls that the prosperity of Brixham was built, a port that became the premier fishing centre of the country until the end of the nineteenth century. The pre-eminence of Brixham dissolved as the new otter trawl replaced its heavier and less efficient predecessor as the main instrument of trawl fishing. Instead of a wooden frame, with steel bridles at either side of it, to hold the mouth of the net open, the otter trawl used two boards which, as they were dragged through the water, were held by chains at such an angle that they sheered apart from one another and pulled the net out tight between them. They could thus dispense with the long thick beam of wood that was so heavy that it was difficult to handle, so expensive that it was ruinous to replace, yet so inflexible that it was often shattered when it ran into an underwater obstacle. Instead of it there was now no more than a simple head-rope, marled on to the wings and the square: it connected one otter board with the other. The graceful curve of a head-rope in action, buoyed up
Living Silver

brightly by spherical aluminium floats, contrasted favourably, even at the aesthetic level, with the rigid lumber of its precursor.

After he had learned to thread together the separate panels by series of lace-hoods, taking up the slack at even intervals whenever necessary, and fitting mesh to mesh with a precision that few women could equal in their knitting, Jan turned his attention to the ropes. The head-rope was simple enough, a stout strand of manilla, but the ground-rope that had to trail unbroken over the roughest and hardest of bottoms was a much more complex structure. To call it a ‘rope’ was yet another example of the over-simplification always present in ordinary language. The parts adjacent to the wings were rope all right, though stronger than the head-rope, but the central part, where the ground-rope joined the bosom, began with wire, a length of old trawl warp, itself strong enough to take the strain of the whole operation of fishing at a depth of a hundred fathoms. Around this core Jan matted three thicknesses of fine cotton netting ripped off from an old drift net and this useful shock absorber was held in place by continuous whorls of the same manilla as had been used for the head-rope. The weight of the finished ground-rope was almost as great as that of the rest of the net put together. It was a third as long again as the head-rope. And there remained the problem of attaching it to the lower wings and the belly of the trawl.

The central part of it was over twelve inches in circumference and could never have been forced through the meshes of any of the panels. Its weight was such that attachment by the single mesh would have meant that, sooner or later, a mesh here and a mesh there would have snapped until finally the ground-rope simply fell off. So Buchan showed him how, first, to rove a narrow rope through the selvedges of the wing and bosom. This wing-line was then caught up by a thicker rope, or bolsh, which was, in its turn looped, at regular intervals, to the massive ground-rope. The strain of that weight was thus spread over two lines, and even the narrower of these could spread its own strain over three or four meshes of sisal.
Learning the Ropes

There were other ropes, like the quarter-ropes, that joined the corners of the bosom and the wings to the otter boards, but these were not important at the moment since he could hardly envisage their use until he had seen a trawl in action. And there were false bellies of thick close meshing that lay beneath the belly and the cod-end and protected them from the chafing of the ground across which they had to travel. And then he had to learn the way of protecting the sisal from the corrosive action of the salt water in the sea itself. Tar was used by some people, but tar made the twine brittle. Buchan seemed to think it was almost as bad a corrosive as brine. There was creosote and copper naphthalene, and there seemed to be a hundred and one other possibilities, and each of them had something wrong with it. Too expensive, it might be, or maybe it was only a temporary preservative. Jan finally chose creosote. It had been the first thing to occur to him and he had a superstitious belief in the validity of first thoughts. At the same time he had confirmed that creosote was cheap, reasonably durable, and not, in itself, too damaging.

He now began to feel that he knew all there was to be known about the trawl and to look forward to the time when he could practice his precepts on the open sea. But Buchan seemed in no hurry. The rest of the class was lagging far behind. There were all kinds of refinements to learn and many pieces of simple seamanlike knowledge to be acquired. It was not until his first experimental day on a trawler was within wishing distance that he first saw Buchan splicing a wire, and it was not until two days and six sore fingers later that he himself succeeded in forming a tolerable loop.

Yet he was hopeful. He knew the trawl. He knew about trawling. The fact that he had not yet been aboard a ship seemed comparatively insignificant.
CHAPTER THREE

NET OVERBOARD

JAN woke, and shuddered at the green familiar face of his vociferating alarm clock. Its hands were set at half past five of an early November morning. It was the beginning of the first day he was to spend on the North Sea. Half asleep still, he found himself at the window, trying to measure the strength of the wind. There was only a slack and dismal dank breeze to stir the raw dawn air. And a good thing too.

Once washed and dressed in his old sea clothes, the things he had worn in the Orkneys, he set off for the ship. He knew it was lying at Point Law, just outside the dock gates where the Goldfish would not have to worry about the state of the tide in the channel. But he had never been to Point Law. It was a much longer walk than he had expected and, in the soft grey half-light that blended imperceptibly with the harder greys of granite, it was more dismal than a mid-winter stroll among the bogs of his homeland. For what seemed almost a mile he walked alone, hearing his footsteps clatter like immense dice shaken at the bottom of a well, along a broad lane with its high herbaceous borders of chimneys. There was no other activity. The factories and the repair shops strung at the side of his path were still shuttered. Only the thick but penetrating stench of millions of decaying carcasses reminded him that he was in the middle of one of the centres of the fish industry. It was to this lane that most unsaleable landings were brought, those that had been condemned as unfit for human consumption and those that had simply failed
to find a buyer. Here they were boiled under pressure, their oils removed, and the rest of their bodies ground down to fertiliser or fish-meal. On a Monday morning, when the machinery was cleaned out and the garbage dumped, the whole city would get a whiff of this obstinate stink if the wind were from the sea, but here the smell was almost impenetrable. He found it difficult to breathe and only the greatest resolution permitted him to put one foot in front of another in the silent reverberating alley. If it were worse than this on the inside of the buildings, then, surely, it would be impossible for a human being to work in them.

But after only half a mile of it he had reached the quay. Sodden with wet coaldust and lacquered with a skin of dirty oil, it was hardly a welcoming prospect at six o’clock on a chilly morning. The Caroon was there however, only her masts and funnel showing above the edge of the dock. The tide was low all right, and it was a damned slippery greasy steel ladder he would have to go down if he were going to get a foot to her gunwale. The Goldfish hallooed him with a sparkling whimper from the bridge. He got the idea and threw his sea-boots and sandwiches down to the deck where one boot, wobbling drunkenly, managed to keep its footing while the other collapsed beside it. Then he turned to the ladder that lay in a vertical niche of the quay wall. He tried to dismiss the sullen black stare of the mixture of water and oil that lay directly below him but vertigo supervened. Every step seemed a slip and then, when he was finally level with the gunwhale, he realised that it was a full four feet off from the wall. It crept slowly nearer, keeling slightly upwards as it did so, then hesitated, and Jan jumped blindly backwards, slipped on its inner edge and tumbled akimbo onto the deck. ‘Aye, aye,’ giggled the Goldfish, ‘many the good man has broken his back in coming aboard the Caroon. But I didn’t think you were a drinking man, Johnny. And at this time in the morning. It’s a plain disgrace.’ ‘Go to Hell,’ yelled Jan. And he picked up his sea-boots and sandwiches and made for the fo’c’sle.

Most of the chaps had slept aboard. They were drowning their
communal prognostications of disaster in tea of the same colour and texture as a very ancient khaki uniform. It appeared that the ship was a wreck. The planks of the decking were held together by fish-slime and spittle. The plates of rust were cemented with paint. The mast was tethered by the Goldfish's aged underwear. And the boiler would burst if the barometer fell. This grumbling made Jan more confident. He had contracted a sentimental veneration for the still mythical profession of a trawlerman. He wanted to protest. But, after a cursory inspection of the Caroon, he decided that he had better keep silent.

Her basic lines were all right though they were not quite the latest fashion. A straight high stem and gently curving bulwarks led back to a trawler stern with its broad beam curving sharply down to the rudder: the wheelhouse just aft of midships over-hanging the trawl winch, two large drums, big with warp, flanked at either end by much smaller solid drums that were bare of any trace of wire: in front of that the broad free space of the deck, the hatch to the fish-hold in the middle of it: and the foremost standing close to the fo’c’sle, its spar of a gilson pointing directly at the wheel: then, behind the skipper’s quarters, the metal line of the engine-room casing, subtending on either side its string of rollers or sheaves, and the funnel that stood out high and straight above the quay, all these were well enough. And so was the boat hung on its derricks, and the after mast where the mizzen sail was tethered, the sail used to steady the ship while she was towing or shooting or hauling. There were lots of things that would pass at a muster, and yet Jan was not reassured.

She had been built in 1898, and she looked her age. Her plates were dented and rust flaked off them when he patted them with a length of stick. The planking looked as worn as the staircase up to the shrine of a saint’s miraculous relics. One of the windows of the wheelhouse had been removed, never to be replaced. The immense winch, immediatly under the bridge, was coloured a deep dark red though the miles of wire trawl warp that were coiled about its two main drums had blushed into a rust of some-
what lighter colour. The starboard warp ran forward to a bollard that someone had just painted, probably to disguise a crack in its metal. (It was impossible that anything aboard could be shipshape.) The bollard diverted the warp through an angle of close on two hundred and seventy degrees, and dispatched it straight port to the forward gallows, up which it climbed and down which it descended, through two revolving sheaves, one bracketed to the deck and one strung from a pulley to the top of the triangular gallows. To the end of this red wire an otter board was shackled, a series of planks as long as a man all screwed and hammered together by iron flanges and heels. The other warp had a longer journey. It led out from the port side and ran parallel to the first until it reached a port version of the mushroom-shaped bollard. Round this it was hitched so that it doubled back and ran astern, almost the whole length of the ship, to the after gallows where it too was shackled to a board. Both of these trawl doors were, at the moment, lying on their longer edges, wedged between a gallows and a port rail. Between them, the net meandered.

At least, Jan supposed it was the net. It hardly looked like a hunter at the moment. It didn’t even have the status of the sleeping dunce he had begun to imagine. There was just a brown heap of collapsed netting: tied at intervals to a pipe that ran along the side of the ship, a long tubular heap, a soft pipe of sisal hitched to the hard pipe of hot steel. At either end it was shackled to the boards by the ropes that met in what must have been the ends of the wings. Near midships Jan noticed a few of the double-barred meshes of the cod-end, coarse and black beside the tender browns of belly and batings. But, apart from such isolated fragments of recognition, it was like a stranger to him. He was anxious for it to resume its familiar shape. He wanted to meet his somnambulist friend, the dunce. He hankered toward the time when it would be unfurled and floated free into the sea, for the moment when he could cry to himself: ‘Net overboard.’

‘And a fine drunken lazy good-for-nothing you are, lying snoring at home as dead as a bundle of bacon, while your
mates were working the fingers off their fists to get that trawl ready for shooting.’ It was the interminable Goldfish again. This time he was hanging half over the bridge, his nose almost tickling the hair of Jan’s head as it poked thoughtfully at the netting.

‘What the devil do you expect? You didn’t ask me to come aboard last night.’

‘Well, I should have. Anyhow, since you’ve got here at last, you can fix these quarter-ropes to the doors. Or do I have to do it myself?’

Jan began fumbling among the deflated diamonds near the centre of the net. Easily enough, he disentangled one of the stout quarter-ropes that were harnessed to the bosom of the ground-rope. But a few of his more idiotic colleagues had tied the other fast to the steampipe under the gunwale so that he had to unfangle a good many amateurish knots and unwrap much of the net before he was able to rescue it. As he worked he began to re-recognise the anatomy of his trawl and to appreciate that by merely unravelling the unshapely cylinder in the most obvious of possible ways it could be paid out, cod-end first, into the water ready to take up its fishing position. The ground-rope, that would have to be heavily man-handled over the side, would be last to go. He had to lead the ropes from the quarters carefully close to this ground-rope toward the doors if he did not risk catching a pocket of lint between the two lines of thick manilla and so fouling the shooting.

The Goldfish watched him carefully, occasionally cackling an order, but still with a certain amount of appreciation. By the time the quarter-ropes had been shackled to the boards, Jan knew that he had done more work than any of the earlier learners. But his sadistic master was still not satisfied. He wanted Jan to replace the net as he found it. This was too much. Jan insisted on help and, after a long string of curses, the Goldfish was persuaded to bring a grumbling section of the crew from their morning tea in the fo’c’sle.

It was high time anyhow. The ship was ready to sail. Mr Finch
**Net Overboard**

was standing beside the Goldfish on the bridge, and he was the last of the expected arrivals. The funnel was belching its grey mixture of white and russet and black. There was talk of singling off. An engineer, sad-looking channels of sweat swimming down his coaldust face, tripped with an elfish irregularity from the engine-room forward and stationed himself in position to work the winch, facing it and the fo’c’sle. He called the colonel and the pickpocket and, when they were safely beside him, he began to explain the workings of the gears and the brakes. For though there was usually a special man for the job, it was ideally expected that every deckie or deckie trimmer aboard would be able to handle it in an emergency. And this was easily arranged, for the winch of a steam trawler, like much steam machinery, was a very simple construction, except at the theoretical level. What was difficult to fathom was why it worked at all. In the case of the *Caroon*’s winch this problem became an esoteric mystery. The two immense drums of rusted wire and the two smaller wide-grooved drums that stuck out from their sides like prolonged hubs from a car wheel, seemed more likely to clatter through the thin decking than to raise a heavy trawl from the sea floor. And they did indeed have to be handled with discretion but the discretion was the trawlerman’s, the seaman’s, rather than the engineer’s. It was a matter of judging the strain on the warps, the pull of the tide, the lurch of the swell, and of knowing whether the ground that was being fished was rough or smooth, resistant or unresisting. Too much pressure on the brake and it would not give until the trawl had been tattered from ground-rope to cod-end; or, if the net held unbroken before a large and heavy obstacle, the bollards would be wrenched aside or the warps themselves parted and whipped back in a fury of curling and uncurling wire upon the men at work on the deck.

While the engineer was giving his lesson, the singling-off finished, the last of the ship’s ropes were cast from the quay by a harbour officer, and the *Caroon* put to sea. They all knew that she was set for the Dog Hole, about twelve miles south of Aber-
deen and that they intended to shoot the trawl twice before returning to port. Nevertheless there was the harbourmaster’s call: ‘Where bound?’ and the Goldfish’s answer: ‘North Sea.’ The speed of the old ship meant that she would take close on two hours to reach her destination, so the would-be trawlermen had planned a long loud game of nap. But Finch had other ideas.

‘Get to hell out of that fo’c’sle. We’re going to clean up this rat-trap. I don’t want my fry floured in coaldust.’

They began at the top, scrubbing and dousing the bridge with hoses of salt water, working round to the decks where the seasickness of their stricken comrades was already beginning to appear. ‘I suppose they’ll want the engine room prettified, and the coal polished,’ and the pickpocket directed a tidy spray of brine straight at the chief engineer.

Curses quietened and laughter abated, they returned to the fore deck expecting to relax; but they were immediately ordered to arrange the fish pounds in their brackets. Jan had been wondering vaguely why these little crosses of steel were sticking up out of the decking. Their only function seemed to be the tripping up of anybody who didn’t watch his feet as he walked to and from the fo’c’sle. But now long wooden boards, about eighteen inches high, were produced and these were duly fitted into their framework until the fore part of the ship looked like a magnified section through a bee’s hive. Each square cubicle was known as a pound and they were meant to serve for the rough separation of the catch into sizes and species as well as to keep it from being thrown by the hundredweight at the winch or against the fo’c’sle or bodily at the gunwales and down the scuppers in a heavy sea.

By the time all was done and they had hoisted the mizzen sail, there was just a moment to spare for another cup of tea before the telegraph rang and they knew they were nearing their ground. The long low swell, on which the Caroon was swaying with a kind of deliberate unsteadiness, was dragging Jan’s stomach muscles along with it. He could almost hear the blood in his belly thudding from front to back, from fore to aft, and he wanted to cough
Net Overboard

his throat clear of the froth that kept rising in it. But whenever he coughed his stomach turned over and his viscera began to work themselves free of their moorings. If only the ship would stop, if only for ten minutes, long enough for him to clear his throat of the rising phlegm. But then, as he was worrying a knot loose from around the net, the ship did stop. Jan leaned over the gunwale and vomited.

He hung there, wretched, for perhaps two minutes, unconscious of everything but the vertigo in his bowels. A hard slap in the face awoke him. The wet sea had hit him, a motherly reproof. Water was pouring down the back of his neck. His whole body had become one tumultuous shiver. He managed to straight himself enough to look at the sea. It was coming towards him again and the Caroon was descending towards it. He jumped back, just in time to let the water break around his knees. The cold shock had cleared his head. He no longer felt sick. He realised that the ship was lying athwart the wind and the swell. The wave that had hit him had been aimed like a broadside at her whole length and its height had been magnified by the fact that the Caroon was reversing to a stop and therefore could not ride it as well as she might have done had she been moving evenly or completely at a standstill.

Already the winch was grating and barking and squealing and groaning, as though her ballbearings had been made of cinders. The trawl doors banged up till they were hard against the top sheave of the gallows. They were edged over the top of the gunwale and slowly allowed to droop down outside it before the brakes were jammed down on the winch, suspending the boards in mid-air. The whole school of potential trawlermen was then forced to the nets. There were far too many of them and, if they had all been active, they would have tied one another in knots instead of freeing the trawl. But more than half of them were in a worse way even than Jan and they could do no more than gaze unbelievingly at the water and try not to get wet. Finch cursed them for the laziest set of swine he had ever seen in his life, but
none the less, he had the goodness to shoot the trawl almost single-handed. When he and his heartless helpers had got most of it into the water they came to the ground-rope: 'All right, chaps, you'll have to give me a hand now,' he said with surprising mildness. They heaved it up and over and watched it sink immediately while the rest of the length of the trawl dangled out away from them on the surface. Jan now saw why the Caroon had been turned beam on to the sea. She was being carried away from the net by the force of the wind. Had it been the other way round, the trawl would be lying beneath her hull by this time and though it might have had its temporary comfort for the crew they would have been apt to complain if, when the engine started running, the net were caught up in the propellor, wrapt round it and torn to shreds until, finally, the weight and thickness of twine and wire held the screw steady and left the vessel stranded in the middle of the sea.

The otter boards were now allowed to drop their clattering way into the water and a few fathoms of warp went after them. The after warp was then stopped dead but the fore warp ran on for a few yards in order to compensate for the distance between the fore and aft gallows. The telegraph sounded and the ship began to move slowly to port, veering towards the outstretched warps until the after one was chafing against the hind end of the port gunwale. The course was then straightened and she was put full steam ahead. The trawl tautened out behind them, the boards sometimes shearing the surface, sometimes submerging, and the warps shook themselves tight. The drums of the winch unbent toward the rusting wire and the bollards relaxed almost visibly while the sheaves of the gallows became the first part of the ship to take the strain. Red warp buzzed rapidly, almost silently, back down the port side toward the stern, then up and over and into the lush cold water. Far behind the ship now, the boards long since submerged, the two warps from fore and aft dashed up a tiny handful of spray as they disappeared slyly under the surface. They went out for a long time, five minutes perhaps or seven, three times as much warp as there was depth of water under the keel of
the Caroon. And then Finch stamped on the foot brake and fastened the clutch in place. The red wires straggled to a stop. A heavy hook, called the messenger, was then attached to the fore warp, near the gallows, and allowed to slide down along it till it was almost level with the stern. Its bridle was attached, through sheaves on the engine room casing, to the small port drum at the side of the winch, and this drum was now set in motion while a deckie coiled the wire bridle around it, pulling gently to bring the messenger towards the rail of the ship. The fore warp, of course, came with it so that the two warps of the trawl were now drawn close together near the stern. Finch then led his apprentice crew back there and showed them how to lock the tight stretched wires in a stout metal block. At the sea bottom the net was now fishing. They had only to wait until she came up.

Full speed in the engine room, yes, but on the surface it was less than half. The swell seemed heavier too because of the port encumbrance and backward drag of their gear. Jan’s nausea returned. ‘Better have a sandwich, Johnny. You’ll never get done with that lot till you’ve had something to eat. I used to get it myself. Every time I stepped on a boat I was sick as seven Chinamen. It went on for ten years too.’ Jan was beginning to believe that Finch’s injunctions would also go on for ten years, so he finished by taking the advice and promptly spewed. But then he had to take his turn at steering, sharing the narrow wheelhouse with that bastard of a Goldfish. It was not going to be pleasant.

They were towing in the arc of a circle. There would be little to do but hold the wheel steady. Even that was more difficult than Jan had anticipated. The Caroon kept tending to veer away from the wind. He was continually having to make some slight adjustment in response to Goldie’s muttered endearments: ‘A bit more to the port.’ ‘A couple of degrees to starboard.’ For, indeed, it was a very desiccated Goldfish who now stood on the bridge. Instead of dribbling glances here and there his eyes would be fixed intently ahead of him, studying the stem of the ship, for long silent intervals. Then he would open the port door and look
back at the warps. ‘You’ve got to watch the angle,’ he kept saying. ‘If they come too near they might dick the propellor. If they float too far out then the trawl will turn over. Turn on the wireless, Johnny. We might as well listen to their flickering forecast.’

‘Hebrides, Bailey, Rockall, winds westerly strong to gale, perhaps backing south west later in the day and strengthening. . . . Forth, Cromarty, Forties,’ ‘That’s us, Johnny,’ ‘fresh to strong, perhaps backing to west in the evening.’ ‘Oh well, I don’t suppose that will matter much. We’ll be in port by then. Eh, Johnny,’ and a series of invitational obscenities followed. But it was quite obvious that the skipper was merely licking his chops with the words, savouring them in a solitary enjoyment. He wasn’t really trying to say anything. He was certainly not speaking to Jan. ‘About two points, port’ though, that had a different sound. That had something to do with the warps at which he had been glancing. He was biting into these words. They were the bread and butter of his language. And so it went on, Jan making infinitesimal adjustments to the steering gear in response to Goldie’s orders, adjustments so small that he couldn’t really believe they were having any effect on the ship’s motion. But the Goldfish seemed happy, and that was all that mattered for the moment.

It was high in the wheelhouse, so that the swell was exaggerated and every dip of the stem into a trough seemed certain to be the last. A good grey body of climbing water and spray would build up to weigh it under. There would be a simultaneous pitch towards the warps and a thin green ledge of the unbroken sea would sweep beneath them over the port rail. And yet, overlooking these mingling but distinguishable colours, though he felt as though he were living on a fantastic Leaning Tower or had been reduced to one letter on a placard that swayed at the head of a mob of revolutionaries, Jan’s brain was slowly clearing, his thoughts coming through the thickness of their vertigo, and his stomach began to settle back to its normal stability. Perhaps it had some-
thing to do with the privacy of the place. Wind and salt water are very uncompanionable companions, a good deal less friendly than even the Goldfish. Perhaps it was just that the height gave him a sense of power over the elements. Or, more likely still, it was simply that he was standing almost directly above the centre of gravity of the ship and was therefore, in spite of appearances, moving through a lesser and more regular arc than he had been on the deck. But the wind was now on the starboard quarter and beginning to come through the empty window frame of the wheelhouse. It was becoming cold, as cold as hell. Luckily his hour was up and he could hand over to the shivering ex-colonel who was wearing a greatcoat beneath his oilskin. He went down to the shelter of the port side and back to the galley for tea again and the comfort of a huge coal fire.

The heat of it almost expelled him. It palpably pushed against him. There seemed to be nothing but fire, black fire, an immense kitchen range. And indeed, on second thoughts, there wasn’t much else, only a tiled footpath in front of it and four walls, one of which, the one that faced the stern, was taken up almost entirely by the space for the door. Three men cluttered the footpath, one of them sitting on a tiny sink that looked as though it were made of lead. Surely it would soon melt away beneath him. Since they were not going to be at sea for even a full day there was naturally no cook aboard. But the Caroon had been working for close on fifty years and she must have seen many cooks. Jan pitied them. No, no, they could not have been cooks. Only jugglers could have worked in such a place. The floor, what there was of it, swished back and forth carrying a mess of coffee grains. The ex-schoolmaster couldn’t drink tea. There was little chance of his being able to drink coffee either so long as he stayed aboard. It would all end up on the galley floor if he tried to make it himself. And Jan had sympathy even for him.

The kettle load of tea was almost new and untouched. Normally it would have been easy to pour, but now the sea roared up, or it slid away from under Jan’s cup and the scalding brown brew
tipped with a hiss on the plates of the range. And yet it could be
done. Generations of cooks had done it. It was this thought alone
that made Jan persevere until, after only slight scalding, he
had almost a pint of the stuff in the mug in his hand. But, by that
time the telegraph was sounding. They were getting ready to
haul.

Finch was just outside the galley preparing to knock the warps
out of the towing block. From in front of the wheelhouse came
the noise of the winch turning slowly but not in gear. ‘They do
that to clear the pistons of water. That way we’re able to keep
them. Otherwise they might crack.’ The wind was increasing.
They were veering slowly around athwart it. Clangs of the engine
telegraph, and again they shipped a big wave over most of the port
rail, but this time Jan was prepared for it and it swirled away
harmlessly into the scuppers from the level of his knees. The
wheelhouse had cleared his head. The galley had steamed his
clothes. They were now saturated in warm moisture. He was
reasonably comfortable and ready to do whatever was asked of
him. The wind, tangled as it was with threads of spray that seemed
more salt than wet, pushed him erect, exhilarated him.

A few strokes of Finch’s hammer and they had knocked out.
The fore warp jumped suddenly away then caught itself up, trem-
bbling and tingling under the violence of its release, about ten feet
off from the port bulwark. And then the winch started in earnest,
a gruff mumble to begin with, than a hollow laboured panting that
finally gave way to a shrill cacophony of climbing and revolving
iron and steel. The scared snake in the after warp whipped past
Jan’s feet, not more than a yard away, round the glistening groove
of the sheave, and off to the forward port bollard.

He wanted to see the winches in action, so he slipped round to
starboard and ran forward over the plunging deck. But he had
barely time to catch more than a glimpse of the two fountains of
fine spray thrown up by the wetness of the hurrying warps when
Goldie yelled down at him through the absent window: ‘What
the hell are you doing here? The after board will take care of
itself, will it?' And Jan returned to where Finch was waiting.

The warp was still shuddering at full speed through the gallows and charging forwards along the scuppers, and it kept on coming for another five minutes. Jan would have been quite as usefully employed watching the winch shift to and fro on the series of cogs which ensured that the incoming wire was spread evenly over the drums and not built up into an unstable pile in the centre. Instead he had to content himself with trying to count the two inch markers of twine that were wound about the warp at intervals of twenty fathoms. He missed most of them. He had counted only three when the big bandaged white knot appeared to tell them that they had no more than twenty fathoms to haul. 'Here they come,' yelled Finch, an elephant's trumpeting athwart the wind. Immediately the throb of the winch faltered down to a cumbersome panting. There was a crash of iron on iron and the after board was jammed in the sheave of its gallows. Finch went over and, with Jan's help, secured it there by its stopper so that the strain of its weight was taken off the warp. Then the winch started again but this time it was only the starboard drum that moved. It had soon dragged the forward board home to its gallows where two other members of the crew secured it.

It was then that the quarter-ropes came into their own. Jan and Finch unshackled theirs from its door and then reshackled it to the bridle of the messenger which was still mounted in sheaves along the upper edge of the engine-room casing. Meantime the people at the forward gallows had fastened their quarter-rope to the towering gilson. The men at the winch then made use of those jutting little drums at either side of the winch to strain in both these auxiliary warps with their cargo of quarter-rope. The massive foot-rope began to appear between the successive waves, and Jan leant over the side to watch both it and the head-rope that was hanging its dozen aluminium heads in the background on the surface. At last the foot-rope, now clear of the sea, was worked up on the outside of the bulwarks over the rail and allowed to flop on the deck. While all this had been going on, Finch had been
taking in whatever loose pieces of wing came to hand and somebody forward had been doing likewise.

Goldie and Finch now marshalled everything that could stand on two legs along the port side of the vessel. Sometimes the sea merely sprayed them with salt; sometimes it swirled green high up on their legs threatening to swamp their thigh-boots. ‘We take the head-rope first, get these damned floats up; then it’s just a matter of pulling in the slack.’ Some of the floats were already aboard, as they had been attached to those parts of the wings that had already been taken in. So Jan reached over the side and grabbed the head-line close to another float. The sea moved up to meet him and the ship carried him down. He lifted it easily over the rail and relaxed. A moment later he was thrown against the gunwale, his hand caught between it and the head-rope he was holding. He felt that a bone must break. Finch and another man were dragging him back from the bulwarks. Otherwise he would surely have been catapulted overboard. Quite as suddenly the pressure relaxed. Finch dumped the head-line on the deck and stood on the lint behind it. Then the ship lurched upwards and the sea beside it dipped. The lint of the square grew taut as the sea tried to suck the head-rope back into it. Jan saw where the pressure against his hand had come from.

The lesson once learned was easily remembered, and his hand was really only a little bruised. He joined the others at the hauling, taking in the slack when the ship dipped downwards, treading hard on the gains he had made when she rose to ride a wave. He now understood why he had heard the sea referred to as the ‘lazy deckie’. Not only did she provide the catch but she also hoisted the load nets aboard. The men had nothing to do but hold on to what the sea gave them. That was their only job.

As they progressed the job became steadily harder. They were reaching the narrower, more heavily meshed, portion of the net, where the brine gave less support, but still, with the ship’s movement to help them, it was never very difficult considering the weight of a net soaked with water and the power in the sinking
Net Overboard

backlash of a wave. At the end of ten minutes, the head of the cod-end was stretched on the rail. Finch was then handed the stout rope arranged as a becket which he looped about the net. This, in turn, was attached to the warp of the gilson and the bag lifted upwards and forwards and inwards to lurch murderously with the swell against the two strong bag-ropes, laid between bulwarks and rigging, that kept it from penduluming like an enormous blunt instrument among the men who were waiting attentively on the deck.
CHAPTER FOUR

THE CONCRETE DECK

OUT of the sea as a tuber might have been pulled from the earth, the bag heaved, black. Solid channels of water dripped away from it over the deck as though they were glistening with the whiteness of roots. Strands of seaweedy life trickled between the meshes and a rope dangled in complicated fashion from the cod-end knot that had kept the net closed from the sea. Finch advanced into the pound to meet them, and catching the free end of this rope, began to tug. It gave, remarkably easily for such a massive tangle of twine. The net reeled open and the released fish tumbled, thudded, wriggled and flapped down the front of his oilskin onto the deck. He then retied the cod-end and, since there had been no rents in the net, they shot the trawl again.

The warps once more held tight in the block, the Caroon rolling ponderously, leisurely, the net again greedy at the sea-bottom, the whole crew was called forward to have a look at the catch. 'It'd be a starvation diet for all of us if we were earning our living at this rate,' mumbled the Goldfish; and Finch seemed to agree. They both knew that they were not even trying for a big bag, that they were using an antiquated gear over a used-up ground, that the seasons were against them, that they could not sell what they caught, that the Caroon was only a training ship and therefore not allowed to go into competition with the commercial vessels, that they had come out only to show their pupils the simplest elements of trawling and a variety of the commonest fish species: they knew that a large haul would merely have embarrassed them and that
they would have ended by throwing most of it over the side, and yet they were both annoyed. They were fishermen: they caught fish. If they failed to catch fish, they became nothing. A small catch undermined their faith in themselves for, though their brains knew that it was what they wanted at the moment, every cell of their blood revolted against the idea and cried at the frustration of its primitive hunting instincts. They wanted to go out and track down their prey and kill it: the more they killed, the greater was their glory, the more assured their essential manhood. ‘But David has slain...’ The Hebrews too had their huntsmen and their fishers: the Bible was full of the same passion: it worked in these two Scotsmen as a disgust at their lack of success.

Jan’s reactions were totally different. He had never seen so many fish in his life. The pound was piled high with their writhing and flapping bodies, their mouths snapping at one another’s tails and their gill-cases opening and closing as they tried to find their element of water in the air. But they were not all fish. Eight feet by five feet and over a foot high, the pound was indeed full, but closer inspection showed that there was more miscellaneous ‘rubbish’ (buzzers, tatties, feathers) than there were fish. Spherical purple tests of urchins, the red anemones or ‘horses’ arse holes’, the long strands of rough grey ‘weed’ that was in fact a sedentary animal; and rocks, sponges and barnacles encrusting their deadness with life, and bright red starfish and dull pink ones, and crabs too, little fellows with small sharp claws that were clamped deep into the tails of fish, and a single large spiny one, its body a mass of transparent saddle oysters, cowering in a corner out of the light: these were all present and would have to be sorted out and shovelled overboard before they really knew just how many fish were among them.

It was not then, when he first saw them, that Jan was able to recognise them by name. That took many months. All he knew as he stood on the deck of the Caroon was that Finch was yelling at him and the others, shouting for baskets and more baskets, and ordering them to ‘get the bastards out of that mess’. And he even
began to show them how to do it, some fish being thrown in one basket, some in another. ‘Come on, lads. Have I got to finish the whole lot myself? Go on there, George and Johnny, and have a shot at gutting these wee haddocks.’ But they didn’t have their knives, and had to go to the fo’c’sle to collect them.

Back on deck, Jan wished he could find another excuse for not trying to gut the black and white fish in the basket before him. They were piled high, by this time, and three men were in the pound throwing fish in all directions and missing baskets in most. Finch came over to them: ‘They look pretty dirty. What about trying to wash them?’ And, indeed their white bellies were floating with just enough of a liquid brown excrement to make Jan remember that he was on a ship, that the ship was pitching and rolling, and that his stomach wouldn’t stay still. A hose of salt water, fed by the donkey pump, swirled up to the top and away through the wicker work of the basket and, miraculously, the topmost fish glistened with miniature rainbows. ‘Have a go yourselves first. Then I’ll show you how to do it.’

Very gingerly, Jan and his companion each lifted a fish. Jan’s gave a kick of its tail and flopped back in the basket. He tried another one, somewhat smaller, and, though it too struggled in his grip, he managed to hold it firm about the head. The soft white belly gave way beneath his knife. The knife slipped and he felt it jabbing his left hand. He released the fish and it slid to the deck. By the time he had heard the laughter of Finch, Jan was kneeling on the deck, holding the tiny haddock down with the ferocity of a wrestler and hacking away at its small white belly as industriously as if he were carving an elephant.

‘Aye, aye. Shall I get you a hatchet, or a hacksaw, mebbe? It’s a mincing machine you’ll want for what you’re doing.’

And Finch came over the slope of the deck to pick up a fish from the basket. His hand was easy on the fore part of its back, a broad grip that did not take count of the movement of its tail. Slowly, to show them, accentuating the twitch of every tendon, he drew back the gill covers with the thumb of his left hand: and
The Concrete Deck

then the thumb went on, piercing through behind the gills to the body cavity of the haddock; and the knife in his right hand moved between the shoulder bones of the fish, parallel to the left thumb and, with a single measured stroke, slit the belly from the head to anus. Even as the knife went forwards, but very slowly so that they might all see it, his left forefinger moved over to press the front of the gut against his thumb. The knife came back and slit the oesophagus just ahead of the hold of his left hand and the fish fell into an empty basket, gutted, while the entrails dangled between the thumb and the forefinger of the fisherman. He threw these into another basket where there were already a few lacerated insides, and Jan, who had watched him attentively, was able to gut his next fish with an ease that astonished himself.

But haddock and cod were the easiest fish to clean. The slit that he learned to make on the side of a plaice meant that he had to grope for the slippery stomach, pull it out, cut the fore gut blind, and then manipulate the connective tissues that held the intestines to the body wall until he had severed them with the blunt back edge of his left thumb. As for the lemon sole, its gut was imbedded far along its body and only finished near the tail; that had to be drawn out gently or it would break off inside the fish and its decaying contents start a rot in the flesh. And then, when there were not difficult guts, there was the sharpness of bones to think of. The whiting – he could not tell it from a haddock when he first saw it alive on the Caroon – had hard sharp and brittle bones that scratched blood from his thumb. The hake, too, was, as it were, internally armoured so that a haul of hake usually meant a fistful of festering scratches as well as a thick pay-packet. (There was a fisherman’s rumour that its bones were poisonous and that rumour was confirmed by many a septic experience.) And, long afterwards, he found that a large halibut can crush a man’s hand, almost to breaking point, between its scaly gill covers and the unyielding strength of its shoulder bone. Herring, alone, were easy to gut, but that was only because they were never gutted at sea.

All these things he found out as he grew older. His first day
out convinced him only of his ignorance. It taught him nothing but his part in shooting a trawl and in gutting a haddock. Its chief use in his later life was that it forced him into understanding his ignorance and determined him to overcome it. He made up his mind to find out as much about fish as these old boys knew who had been born with it growing out of their backsides. The first step towards this knowledge was obviously to learn which fish was which and, when he got back after that first day’s trawling, he started on a self-disciplined course of haunting the fish-markets and asking foolish questions.

It was an uncomfortable course. (By this time he had resigned himself to the fact that everything about fishing was uncomfortable though he had not therefore resolved that his life would not be spent in fishing.) He had to rise at six in the morning; he had to go down to the fish-market; and he had to reach it before business started. The auctions began at eight and Jan was usually messing about by seven of a cold morning.

Concrete and ice. There was nothing else. There were no fish, no men, no ships. There was only the mile of concrete covered with melting or unmelted ice. Everything was so strange. He went down to look at fish but all he saw was the concrete and ice. And no wonder. There are few places like Aberdeen fish-market to impress a man with the magnitude of humanly constructed dimensions. The Forum of Rome seems paltry beside it, a niggardly piece of pompous impressionism. The great factories of our time do not have the simplicity of structure that allows us to view them all at once, to be impressed by a single glance, to see the size of the accomplishment in anything other than homeopathic doses. The very size of most modern buildings demands that we be kept away from the concept of their size. Otherwise we would be intimidated and unable to work in them. But a fishmarket is not divided into sections. It has no plush offices, few hygienical cubicles, no counting rooms, no assembly plants, no divisions whatever. There is nowhere for a man to hide himself. There is only length and breadth and height, and the steel pillars that sup-
port the height; and the concrete deck with its cargo of ice, the roof with its corrugations or rafters. There is only the sense of distance and therefore, of perspective. It is one of the very few modern forms of architecture that attains a truly Attic simplicity.

But Aberdeen is not Athens. It is far north of the Mediterranean and has a climate to match its latitude. It is cold in Aberdeen and the sun has a slender, though dispersed, beam. And then there is ice on a fishmarket. It is very cold. And the sea there is an oily rainbow, promising only a green harvest of banknotes and often going back on its word. It is hedged in by the concrete fishmarket. It is commercialised. Then too, there is granite and concrete and steel. There is no marble, no sculpture. Everything is reduced to straight lines and the austere perspective between them. It is all very impressive.

As well as this there are the fish and the dirty ships that bring them in, and the men who roll them on trolleys. A tourist would see all these things immediately, but Jan was too interested in fish to be able to dissociate them from their environment. For him their tails were still flapping and flapping tails did not fit into concrete. So, since he could not avoid the vista, he unconsciously avoided the fish.

The ships, however, were easier to see lazing alongside in the greasy water, their masts arranged in an irregular lack of pattern that countered the straight perspective. They varied in size as they varied in newness, in shape as they did in function. There were the low wooden boats that had been mine-sweepers in the early days of the magnetic mine, and that were now halibut liners fresh from the Iceland grounds. There were the little ships, the seine-netters, occasionally visible under the quay. And there were the trawlers, blowsy bobbins of rust as some of them were, lean crates of catching power blacked out by paint, and the odd streamlined ship that looked as though she was good at her job.

Jan’s first thought was that some of them must be useless. A trawler is such a special kind of generalised vessel that practically nothing that floats, except in the designer’s mind, could be effici-
ent at all the jobs she is expected to do. Almost any other kind of ship is designed specifically for one job, for carrying cargoes or for towing other vessels, for lying static among the big waters or for racing from port to port. But a trawler must be capable of doing half a dozen specific jobs and she is, therefore, seldom better than a most inadequate compromise between conflicting demands. In the first place, she must sail, and as quickly as possible; for her catch must be back to market before it has had time to decay; and must sometimes travel two thousand miles before it can be sold. Then again, speed is economic since lack of it means that she spends more time in going backwards and forwards between the grounds, and to and fro over them, than she spends in fishing. And all the time she is travelling. All the time she is using fuel, coal or oil, money. And a trawler must be able to tow. She must be like a tug, able to make an even course through a high swell. She must have stability. She must also have strength in the beam, be able to sit out long hours in a thwart sea, like a lightship. Then too, she must be capable of carrying a cargo. And that cargo must be easy to load; for the loading will not be done in the stillness of a dock backwater but, more probably, in the swell that follows a full gale; at least, in the open sea. On top of all this, she has a crew, much larger than that of a cargo vessel of similar tonnage, and that crew must be accommodated: so the trawler must be like a passenger vessel. How then could there be a perfect trawler?

There were certainly none in Aberdeen when Jan first visited the fish-market. Occasionally a streamlined Icelandic vessel would unload, or an oil-burning Norwegian, or one of the new Belgian trawlers. They too had their disadvantages but they still set a standard of design that should have shamed the owners of the home fleet. Most of it was over forty years old and had long since been reduced to units of scraggy rust as obsolete as the Caroon, uncomfortable, dangerous, inefficient ships that threatened continually to ruin their owners and drown their crews. They were known as scratchers and they sailed out once or twice a week to the near and middle waters of the North Sea, going as far as the
Gut to the south and the Viking Bank in the north, and returning promptly with a small catch covered in its own weight of ice. And just because they were so unseaworthy, because they had to come back to port after such a short time at sea, their fish was better preserved and sold for higher prices than the catches of the more efficient long-distance trawlers of other ports, like Hull and Fleetwood. It was almost as though a premium had been put upon a niggardly lack of any economic imagination. At least, for a time. In the long run, the diesel would win. The rust slums would rot out and the richer resources of the far north would leave the owners of the scratchers impoverished. But, in the late forties, when Jan first saw them, these ancient sea-bitten junk heaps were still helping to make Aberdeen a prosperous city.

Though their basic design was as good as could have been expected, the wear and tear of decades of exhausting travel had reduced them to unsafe contraptions that would have been uneconomic had it not been for the post-war plenty of fish in the North Sea. They were too slow, to begin with, and their ancient reliable engines were gluttons for coal. Some of the oldest of them were not scratchers. Much more ambitious, they made long-distance trips to the Faroes, and even to Iceland. In these cases, it became necessary to use a part of the fish-room as an ancillary bunker. The coal deposited there was burned during the trip out so that, by the time the first haul came on deck, the hold was empty and could be washed down before any fish were stowed in it. Their lack of speed, however, affected their towing capacity and definitely restricted their success at some specialised jobs such as the herring trawling that had been practised by most European countries, particularly Germany, and which underwent a great expansion during Jan’s years at sea. And yet, at that time, there were few owners or skippers willing to forgo coal and take to diesel. The simplicity of steam, the ease with which its power could be diverted to the trawl winch, and the reserves of energy that are always associated with a coal-burning engine, these factors hid the revolution in trawler design from the Aberdeen industry.
Living Silver

until oil-consuming vessels were already the norm in the majority of its competitor ports.

Yet, in spite of the dismal similarity of their rust-covered bulwarks and the peeling paint on their woodwork, each vessel among them was an individual, and Jan heard many warnings against wet ships and an equal number eulogies in favour of dry ones. But he could never find out what made a ship wet or what kept it dry. Of two sister ships, structurally so similar that he could not tell them apart, one would be able to ride athwart the full Atlantic swell when its crew were hauling their nets and not a single surge of green water would come over its side while the other would go gunwale under if only the Swatchway were choppy. Men knew a wet ship from a dry by experience: there was no telling them by mere inspection. The whole thing was a mystery. It certainly had nothing to do with age. The newest and most efficient trawler in the fleet was also one of the wettest and, since it sailed regularly to Iceland and the Faroes, it was very unpopular among fishermen although it could offer them the certainty of large catches and fat pay-packets. The battering they had to take from the big seas of the north overcame even their love of money.

Then, too, the fish-holds were hardly ideal refrigerators. Their wooden casings, draughty, slushy with melting ice and, often, none too clean, were expected to preserve large cod and ling for, perhaps, ten summer days of warm mist and paraffin calm. Quite often Jan would see whole catches, usually large fish that had come from a good distance, marked with the label ‘condemned’. Very often, too, they were large catches; for it was tempting to try to stow just a few more kits of fish even when there wasn’t enough ice for it to be dead certain that they would all be preserved. It was difficult for a skipper to keep his head when the big bags were coming up regularly; he often forgot that he might lose the lot for the sake of those few hundredweights. Or, maybe, it would be nobody’s fault that the catch rotted: only the ship’s; the ship and the weather together making it impossible to reach a port. Three whole days spent sitting it out, head on to the wind,
The Concrete Deck

and the ice melting, and the fish-room warming, and the catch going bad in the pounds. That too sometimes happened, but not very often. In spite of their antiquity, there was hardly any weather too bad for these little ships when they stowed away their nets and turned their stems towards home.

The men who lived and worked on them could take almost anything. If they couldn’t then they didn’t sail twice; for it was the crew’s accommodation that had been most skimped by the builders and that had suffered most with the ageing of the vessels. The tiny fo’cs’le of a scratcher, with its double tiers of bunks arranged in a bent triangle, the anchor groaning overhead, its chain rumbling with rust as the whole room soared clear of a wave or slapped back down like a fist on the water, the mugs swaying until they had broken from their little iron hooks, the fug of eight sweating bodies, each screwed to a pipe or a cigarette, all this Jan could imagine; but not until he had made a trip on one of them did he really know the terrible strain, felt in every muscle of the body, that comes from continually striving against the maximal movement of the ship, trying, sometimes unsuccessfully, to avoid clattering out of a bunk. Nor had he understood that, when the vessel is under full steam in rough deep water, a man must sometimes crawl on hands and knees, gripping the iron battens on a constantly capsizing deck, heading, wet neck first, into a ton of green and white and battering brine, crawl painfully forward every time that he wants to pass from the wheel house to his blankets. Such experiences could be terrifying. And yet, when he had come to know them intimately, Jan found them more exhilarating and less miserable than the trials of warm, smooth water. He could not have anticipated how the depressive confinement forward, with its almost total lack of sanitation, its bullying and its obscenity would have made the drenching and dangerous sea into a healthy relief, almost an escape, from the boredom of his quarters. For though he had understood the physical discomforts of trawling (a single day on the Caroon had been enough for that) he had not realised that the same social degredations as are found in Glasgow tene-
ments would operate in the sea slums that sailed from Aberdeen. Compared to this atmosphere even the danger of drowning was revealed as an invigorating experience.

Anyhow, there the ships would lie, twenty, thirty, forty of them, forming a line so close that the propellor of one vessel must have been scraping against the rust on the stem of the one behind. Yet, when the huge baskets of fish had been hoisted to the concrete quay and the lumpers had arranged them in regular lines of hundredweight boxes, there would be a couple of ear-splitting hoots, ropes would slacken and be hauled aboard and then a ship would reverse out of the order, turn itself free in the pool and nose its way out towards the dock gates, hooting occasionally to frighten the herring gulls that clustered around it, but otherwise as sedately and as leisurely as an old lorry might move in an open stretch of road.

They looked much safer, less likely to collide and be injured than the men they left on the slippery concrete behind them. For the men looked murderous. Their boots were of thick and inflexible leather, sometimes spiked with wood, so that it was almost impossible for them to walk without giving the impression that they were trying to kick one another. Then, too, they were moving very quickly, scurrying, almost running. A gigantic game of football with oblong balls, each weighing more than eight stones. No sides at all. Everybody against everybody else. And yet not football, for the long iron hooks in their hands made it look more like hockey; and then there were the high and restless trolleys, sliding and colliding without any pattern or apparent purpose from one end of the market to the other, so that at times it looked like polo played from man-drawn chariots. And the weighing machines, too, that were trundled more slowly from one line of fish to another, elderly men emptying the contents of any boxes that were not quite full into these ambulatory scales. And individual fish. They had to weigh all the fish that were too big to be put in boxes. And label them, scribbled unreadable labels, 3½, 5¼, or 9 for that big halibut, with its milk-white belly upturned, slightly yellow,
The Concrete Deck

like rich cream. And so that everything would be still more hectic than it could be made by the sirens of the ships, the screaming of birds, the undirected clatter of two hundred running and stumbling men, or even the howl of a south east wind biting deep into the iron pillars, there was still the ice. Old yellowing ice that had made the journey from the grounds and was now three quarters melted, thick with fish slime, and the clear new cold ice sent to preserve the fish ashore. It sharpened the edge of the wind and robbed the hurrying lumpers of all control of their feet.

Yet, down the middle of all this confusion, there walked the macintoshed and mittened business men, as intent on observing quality, as insouciant, as uninterruptible, as a lady deliberating between two shades of lipstick. It was while the fish were being laid out that they made up their minds about what they wanted to buy. One run through the market, then back to their offices, and a long series of telephone calls to their customers throughout the country. 'No, there aren't many lemons today, but there's a nice catch of chicken halibut.' 'Yes, I can get you a couple of boxes of first-rate small haddock. Good. And you want a few big ones as well.' And so on. To London, and Birmingham, and Glasgow, and Manchester. Their telephone accounts were often the largest item on their lists of expenditure, larger even than the wage bill.

These customers in the south bought blind. They couldn't themselves come up to inspect the goods that the wholesaler at the market was selling them. It was therefore essential that they find a wholesaler whom they could trust, whose judgement of quality and whose understanding of their requirements were unimpeachable. The personal skill and probity of the wholesaler was, thus, his greatest asset. Or, at least, that was the idea.

It so happened, however, that the financial tangle of the fishing industry was even more chaotic than the obvious physical hulla-balloo of a fish-market in action. There was that kind of in-breeding between close relations which, at the biological level, usually leads to idiocy, haemophilia or cretinism. And the body economic did not differ from individual organisms in this respect. The
Living Silver

owners of ships were often the same men as the wholesalers. They often had interests in ship’s chandlers as well. They owned the transport that carried fish to the retailers in the south. And, as often as not, they had an interest in these retail shops. Or a large company would move in, buy out a few wholesalers, open a canning or a deep-freeze factory, set up a string of fishmongers throughout the country, and then proceed to stabilise both quality and prices at a level suited to the magnitude of their investment.

Jan never grew to understand the details of this high finance. He only knew that one small wholesaler after another went bankrupt under the strain, when the shops of his regular customers, in Liverpool or Billingsgate, were bought up by one or another of the big companies who then transferred their newly acquired accounts to their own subsidiaries in Aberdeen. It was easy for these men, skilled in the fish trade as they were, to find employment with the firms that had superseded them: but they were a dour proud lot and most of them preferred to clear out of the country to Australia or South Africa.

So too did many of the best fishermen, particularly skippers who, in the cut-throat competition of those days, were unable to find a command. They left a gap behind them, a gap that the Government was trying to fill with such recruits as Jan himself: but the gap remained. Indeed, the continual departures of trained seamen were tending to increase it in spite of all efforts. This is not to say that there was a labour shortage, in the ordinary sense of the term. There was plenty of labour, of a kind. There were more than enough skippers to command a fleet of twice the size of the one then registered in Aberdeen. But there was a great shortage of trained deckies, of men with a fisherman’s instincts and experience who were willing to put out in these steam-powered slums and work eighteen hours a day on a cold deck in return for five pounds ten a week and twelve shillings bonus for every £100’s worth of fish landed. Instead of fishermen, the owners were being driven to employ whatever labour they could find, even if it meant searching the prisons and advancing money to pay small fines; and
these newcomers to the industry were seldom efficient and often more of a nuisance than a help. They would fail to show up when the ship was ready to sail. They would go to sea and turn so sick, vomiting blood in alarming quantities, that it had sometimes been necessary to bring the vessel straight back to port before a net had been shot. Or then again, they would survive the trip but, once on the grounds, the usual length of their working hours would breed a mood of mutiny that ended only when one of them had surreptitiously slashed the last trawl so that it came up from the bottom in shreds.

Yet none of these disadvantages, whether it were of ships, or money, or men, seemed to slacken the incessant activity of the market. From three o’clock in the morning it went on until midday, cranes, baskets, boxes, birds, flying, sliding, slipping, sailing, all without stop. And the lorries coming to be loaded, going away often half empty, the roads alongside as cluttered with traffic as the oily harbour water with ships. There was no stopping them. They were carrying fish, and fish must be carried quickly if it is not to be allowed to rot. These fish were going to be Jan’s business and, at last, he began to be able to see them from behind the jumble of activities in which they had been hidden. But there were so many of them, they were so different from one another, that it took him many weeks of reading and observation before he began to understand the most elementary facts.
CHAPTER FIVE

MARKET WHIMSYES

The first thing that puzzled him — and it never ceased to be a subject for wonderment — was the way fish were priced. It seemed haphazard and was unfair. And it was all done like a ritualistic dance, almost without words, to a chorus of screaming birds, squeaking trolleys and hooting ships.

A plump man in gum boots initiated the ceremony. After a stroll through the length of the market he would end up where he began on the first row of boxes at half past seven in the morning. A couple of wholesalers might wander over to speak to him. They would be joined by a few of their friends — a knot of male gossips. But the man in gum boots would retire, more and more removed from the crowd as the crowd grew larger; until, by about eight o’clock, he would be left standing in a contemplative solitude in the centre of a solid circle of perhaps a hundred buyers. He would then step on top of a box filled with fish. His eyes would travel round the circle. The buyers would go on talking among themselves. The auctioneer’s right fist would come down on his left hand and he would move on to another row of boxes. The knot of men followed, still talking to one another, almost ignoring his existence. Yet, behind them now, a little man or, sometimes, a boy would run down the deserted row of fish and affix labels, Piebald, Aquatrink, Piscator, J. Bromley, to each of the boxes. When, and how, the contents had actually been bought remained uncertain. By what slight signs the wholesalers made their offers Jan never discovered. All he knew was that the auc-
tioneer had now moved on, leaving six rows of labelled boxes behind him. The lumpers converged, dragging them off to the lorries, and the auctioneer jumped to the seventh row where he stood again, still surrounded by buyers, whispering schizophrenically to himself. Not until the following morning when the local papers printed the figures did Jan discover what price any particular species was fetching.

These prices too were strange. The ships in the upper part of the market, the first catches to be sold, received the best money. It was vaguely explained that this was because of time. If fish were bought by five minutes past eight they could be put on an eight-thirty train and dispatched to the south. They could be in Glasgow by lunchtime and sold to the consumer before evening. There was a quick return and the perishable commodity had no time to ‘go off’. But this explanation never satisfied Jan, though he could find no other – unless it was that the best skippers always made a point of being at the head of the market. And that wasn’t true either.

Then too, the relative values of fish fluctuated violently, depending as much on the quantity as on the quality of the supply. A large market usually meant low prices, except on a Monday when the week-end fish famine increased the demand. And it seemed grossly unfair that a crew who had laboured for weeks among gales and ice should be penalised because they were unfortunate enough to land on the same day as a lot of other ships. But it probably worked out all right in the end. Next trip they would be lucky and find only half a dozen vessels in port. The value of their shot would be doubled through no effort of their own. Still, it was very haphazard.

These reflections were obvious and would have occurred to anyone who passed a week of mornings at the market but Jan found that the inconsistencies of fish sales did not stop there. Both quantity and quality had something to do with the catch but there were innumerable other factors which bore about as much relation to fishing as an aeroplane bears to ploughing. The first and most im-
important of these was transport. Naturally, it had little effect on
the internal relativity of catches landed at any single port, but,
more than anything else, it determined the prosperity of ports and
gave rise to intense rivalries between them. The greatest of
British consumer markets were located in the south, particularly
about London where the fish trade was centred in Billingsgate.
Manchester, too, Birmingham, Newcastle, Glasgow, Bristol, they
all lay far to the south of Aberdeen, and many of them were much
closer to ports like Hull, Grimsby, and Fleetwood, ports that sup-
ported fleets more modern and better equipped than that of
Aberdeen. As he grew older in the fish industry, Jan came to
understand that as much as seven tenths of the price of fish go into
various forms of transport. There is the journey of the ship to the
grounds and the journey back again, perhaps five thousand miles
in all. And then the fish are landed. They lie static on the con-
crete deck – but only for a few hours. They are merely preparing
for another journey, shorter but still expensive, and a port within
easy reach of Billingsgate, like Grimsby or Lowestoft, stands at a
great advantage over places like Aberdeen where a journey of close
on six hundred miles separates the fish in the hold of a trawler
from the greatest concentration of the British people.

Jan was far from being the first person to note this difficult ano-
maly. Aberdeen owners and, more especially, wholesalers had
been vociferous in drawing it to the attention of Edinburgh and
Whitehall. They had succeeded in securing certain privileges
from British Railways but they were far from satisfied. Many of
them, indeed, preferred to transport their goods on private lorries
rather than incur the heavy expenditure of the train journey south.
It was only by their reputation for bringing in fresh fish, prime
from the North Sea, fish much fresher than any that came from the
distant waters of Bear Island or Greenland, that the merchants of
the north had been able, by charging prices proportionate to the
quality of their goods, to compete with their English counter-
parts.

But transport, though it had nothing to do with either the
Market Whimsies

quantity or quality of the fish landed, was still a real thing. It belonged to the objective world of facts and ran independent of any subjective human considerations. What bedevilled fish prices was not objective. It was the whimsical and illogical factor of what was called personal, of what was really mass, taste. At times it almost seemed that the public was doing its best to create difficulties for the men who hunted its fish. And Jan was not long in finding out that there were plenty of difficulties without the artificial ones manufactured by the vagaries of the market—difficulties such as get in the way of any hunting community.

For fishermen were hunters. It was such a simple fact that it was easy to forget and often forgotten—but then, of course, simplicity is the most tenuous thing in the world. And yet, for those who see the simple thing, it is infuriating that others miss it. Or so, at least, thought Jan. The two basic industries upon which all civilisation ultimately depended were agriculture and fishing. Of these two, agriculture had a long history of successful experiment behind it. Flocks had been tamed. Fields had been manured. Crops had been bred so selectively that their present forms bore little resemblance to their ancestral ones. All these things had been accomplished over centuries, centuries in which every arable acre was minutely observed by men who were very wise in the ways of the land. But the sea had never been observed. Fish did not grow out of it like grass from a field. They lived deep within it and were invisible.

The work of farmers was simplified by the intelligence of their domestic animals. They could train them to keep together, to stay within an enclosure, to allow themselves to be milked. But nobody could train a fish. It was always a wild beast. Men could do one thing and only one thing with it. They could kill it. Otherwise the fish would wander wherever its luck or its nature took it. There were no fences in the sea. What natural barriers existed were better known to fish than to men, for man was not really an aquatic animal. The sea was secret from him. His prey had the advantage of being in its own element. That was probably why
men were still living in what was almost a Stone Age relationship with the life of the oceans, even though they had now managed to make hatchets more complicated than those of Neanderthal man, hatchets that weighed a thousand tons, that consumed oil by the hundred gallon, that carried a whole society aboard them.

Nothing primitive is economic. American Indians who slaughtered bison in order to feast on their tongues were far too primitive to be able to hold their own in the complex economies of the modern world. And yet, because of the immense productivity of the sea, fishermen have managed to survive although their methods are basically as primitive. The bison is, at least, a vegetarian. It is only one step removed from grass. All fish, however, are carnivores. To kill them is about as economic as to live on a diet of wolves. The wolves would have to be fed on sheep and the sheep would still consume whole harvests of grass. Yet it would take many sheep to fatten a single wolf. It would, indeed, be more sensible to kill the sheep, and eat only their tongues. For every link in this kind of food chain implies a loss in food value of something like ninety-nine percent. If men could only grow edible crops, like wheat or oats, on salt water they would increase the yield of the oceans by, at least, a thousandfold. But, though a few pilot experiments have been carried out in this direction, there is no prospect of any change happening within the foreseeable future. Coming generations of men will have to be content with their primitive role as hunters.

It took Jan a long time to get these points quite clear in his mind. He sometimes thought that his career at sea helped only to obscure the fundamental issues. The truth was that fishing was such a primitive form even of hunting that the elements of the chase which called for skill tended to be swamped in the brutal fatigue of shooting and hauling. Trawling, in particular, seemed to demand none of the delicacy in stalking its prey, none of the accuracy in aiming a missile, that characterised even the American Indian. The fisherman just went out in a ship, waited till it stopped, helped to throw a net over the side, and, when it came up,
there were the fish on the deck. Yet, from the beginning, he knew it was not as simple as that.

His reading soon showed him that there were almost twenty five thousand kinds of fish in the world. A great number of them lived in fresh water. But even at that, there must have been over ten thousand different kinds in the sea. Yet, when he went round the market, it was always the same small collection of species he saw on the concrete. These were, indeed, the ones that were commonest in the North Sea and the Eastern Atlantic — yet not quite. Fish were not unloaded dead in anything like the same proportion of species to species as they were found alive in the water. Of the many thousands, under twenty individuals were common on a British dining table; and it was this quantity he found in the market.

A few trips and he knew why. These were the species that fetched the best prices. So the ships went out to find them. They searched for them. He never forgot the very first haul that came aboard on his first commercial trip. It was immense, and had to be hoisted aboard in two bags. The flappers of the net were cut. The vessel steamed a few turns astern so that some of the catch streamed forwards out of the cod-end into the belly. The cod-end was then hauled aboard, emptied, tied, and again thrown over the side to collect the rest of the take. Jan had felt very pleased with himself and with fortune. But the skipper had merely grunted: ‘Bloody dogs. We’d better get to hell out of this.’ And most of that catch had been dumped. Dogfish did not fetch decent prices.

It had been luck; though, at the time, Jan would have sworn that it had been bad luck. He had been taught by this first haul that fishing was not a matter of hit or miss. Not a simple matter in any case. Since fish left no trace on the surface there were naturally a large number of misses, but, considering the size of the sea and the frequency of absence of the commercial species, there were far too many hits for it to be an accident. Somehow or other the fishermen managed to keep on the trail of what they were after. Without being able to see them, with no sound from under water
Living Silver

to help them, without the aid of the organs of smell and touch, the fishermen tracked down the species they wanted, the species that would sell. In this chase, they were helped only by the antiquated furniture of their own brains, a bric-à-brac of memories resting on heavy mahogany superstitions. No man could hope to be a successful fisherman without such a Victorian confusion within his head. Scientists sneered at it. Music hall comedians laughed. But it caught fish. It was a form of knowledge, a primitive form suited to the primitive vocation of a hunter. Usually the men who had most of it were singularly inarticulate when asked to express their reasons for shooting their gear over a particular strip of sea-bottom. But the incommunicable is not necessarily the unknown. These men were obeying laws formulated by generations of experience, laws that often took the form of superstition but always bore a very close and very practical relation to what was in the sea and what could be taken out of it. The proof of the knowledge lay dead in the ice in the market, fish by the hundred ton that had been tracked down and caught and killed with no more help from the gadgets of modern technology than could have been supplied by a nineteenth-century engineer.

Fish moved inshore or offshore with more or less regularity, concentrating to spawn, dispersing to feed, burrowing into sand when their shallows were attacked by heavy weather, or sauntering lackadaisically in the deeper water. The grounds they lived on differed, one species preferring rough rock while another was associated with a fine black mud that clotted the meshes of a trawl unless a coir rope was suspended just above the foot-rope to shove it out of the net’s path. Then, too, not all of the bottom-living, or demersal, species were really found on the bottom. Many of them lived a little above it, darting down there only when they detected food to their liking. When fishing for these species, the head-rope had to be as high as possible or it skimmed harmlessly underneath the bulk of their communities. Or thick chains would have to be rigged in front of the foot-rope if the skipper was after the burrowing fish: they had to be dug out.
Market Whimsies

All such habits were well known long before any of them had been observed in a tank. And so were the vagaries, the strange departures from their biological routines, that often upset human calculations. Every ground seemed to breed its particular aberrations from the conventional pattern. Before he shot a trawl, a skipper was as well versed in the irregularities of the living rhythm as in the unevenness of the dead sea-bed. Nothing was too modest or too extraordinary to be neglected as a clue to the potentialities of the water over which a ship was travelling. A bird wheeled. It was joined by another, both with yellow heads, both otherwise marvellously white, except for a sprig of black feathers at either slender wingtip. Before long the sea was alive with splashing gannets. Herring. And, at that time of year, there might, though it was unlikely, there might just be spawning. If they had spawned then there might be haddock. It was worth a try. But, by now, another trawler was aware of the birds. It was coming towards them out of the horizon. If only that first wheeling gannet had been heeded, the nets would have been shot by this time. Soon the area would be a hot-bed of trawlers. The good skipper was the one who took advantage of every privilege that chance granted him. It might even be a negative privilege, a warning not to shoot. Maybe the echo-sounder would give back a slender trace that did not come from the bottom, a long feathery trace, like a ladder in a silk stocking. That meant dogfish, and where there were dogfish there was probably little else.

The echo-sounder was, indeed, the greatest gift that technology had given to fishermen. But it would have been presumptuous for the technologist to imagine that he was responsible for its use. He had invented it as an instrument of navigation, a way of indicating the depth of water that lay under the keel of a ship. It was the fisherman who recognised its possibilities as a tool in the search for fish. The machine just sent down a team of sounds that followed one another at regular intervals to the bottom from which they were echoed back to the ship. The length of time it took to make the return journey was a measure of the depth of the water,
since the speed of sound through brine was a known constant. This depth was recorded by a sensitive nib on an unfolding roll of paper in the wheelhouse. But if anything lay between the hull of the ship and the bed of the sea it would interrupt the sound and send back a smaller echo of its own. A submarine, for example, would give a very substantial echo, not only because of its size but also because it was filled with air and was therefore able to act like a kind of drum, booming back the minuscule sound from the apparatus. The bodies of many fish contained a similar gas-filled space, the so-called air bladder, and this meant that they too gave a fair indication of their presence even when they were present only as individuals. Other fish, like the dogfish, had no air bladder and their echo was thus less easily recorded and they had to be present in large numbers before they were immediately recognisable from their echo-trace. It was because they were able to decipher such small differences in the quality of the trace rather than because the engineers had given them efficient navigational instruments, that fishermen were able to use the echo-sounder as a fish indicator. It would have been a positive nuisance if it had led them into mistaking the projection of an old wreck for a shoal of cod. Everything depended on the interpretation of the text of the trace and that interpretation was a matter of experience, often of contradictory experience. Though a few traces were nearly unmistakable, like the thick black band of shoaling pilchards, a kind of horse’s mane slung from an imaginary mid-water neck, there were many others so deceptive that skippers preferred to neglect them altogether. As years passed they would be sorted out; every tiniest blip would become a safe fish sign: but that sorting would be the work of a whole generation of fishermen, not of an engineer.

But the engineers continued to confess, by their superior silence in the face of a cursing skipper, that they, and they alone were responsible for the marvels of echo-fishing. Under these circumstances, hostility grew up among fishermen and it was usually directed against the man with white teeth who popped up out of the engine room in a comic mask of coaldust. But, no matter how
Market Whimsies

many jokes they might direct against the engine room staff, fishermen did not ignore the echo-sounder any more than they had ignored the steam engine or the diesel. Any sign no matter how unreliable, was received with gratitude. It was difficult to follow an underwater trail.

In spite of all their skill and all their knowledge of the grounds they worked, Jan's first few trips confirmed his belief that farming was a much more assured investment. Whether it was that his first skippers were not quite so adept as they pretended or whether it was simply that they were working in a slack season, they usually ended by landing a fair amount of the 'rubbish' that they called 'unsaleable'. It did sell, of course, but the prices were not what anybody would have wanted. Jan's share in these trips was little more than a few shillings per week. The skippers made practically nothing, since they were paid on net earning and not gross. As for the owners, they were losing money. But years later, Jan had still to find the owner of a trawler who would admit to making anything out of the business. They kept their hell ships going out of pure philanthropy. It was because they were public spirited that they allowed their employees to work for anything up to twenty hours a day. Some trawlermen suggested that it was an American plot to foist moral rearmament on British seamen. Others believed the owners were Communists who were secretly trying to hasten the date of the proletarian revolution. Both groups were wrong.

The truth was that the fleet had grown so antiquated as to be almost an uneconomic proposition - in spite of all the benefits that accrued from direct subsidy, from preferential rail fares and from the high quality of catches brought back at the end of very short trips.

Only by spreading tentacles through other branches of the fishing industry, wholesaling, coaling, ship's chandling, net making, retailing, could a trawler owner be certain of recouping possible losses at sea. And that was what they did. It was much easier to buy a shop for a couple of thousand pounds than build a ship
that might run into one hundred and fifty thousand. They didn’t build ships. They didn’t invest capital. Yet they felt decidedly miserable because they received no interest on a non-existent investment. And, in many cases, it was literally non-existent. Thanks to depreciation there were many vessels that stood on their company’s books at zero. The owners were thus able to save, even on insurance. The whole fleet was being drained of capital. That was why the profits were so low.

But capital alone could never have corrected the abuses Jan found on every side. Day after day, ships sailed in search of the same fish, the fish that would sell. Sooner or later the stocks of these species were going to be exhausted, for it was not only the British fleet that hunted them. All Europe was also engaged in the same chase. There must have been more than a thousand ships scratching the bottom of the North Sea.

And why did these fish sell? Why were lemon sole more valuable than mackerel? Why did the catfish fetch less than plaice? What made the halibut so expensive while the sea bream, on which it fed, was almost unsaleable? No matter how often he asked himself these questions, he always ended up with the same tautological answer: fish sold because somebody bought them. There was no other conceivable reason. It had nothing to do with good fish selling and bad ones becoming unsaleable. Indeed the fishermen, who probably knew more about the food qualities of fish than anybody else, often kept precisely those species that the public refused. They could be seen, sidling off from the market, carrying a catfish ‘fry’ home, when they could have chosen sole or haddock, plaice or whiting. And, especially when they were at sea, they ate the small ones too, the tiny plaice and haddock, just large enough to land, small fish that the merchants were able to buy for a song. The trawlermen swore that they were sweeter. Who was going to contradict these fishermen?

A dietician, perhaps? But the dieticians did not. They rather tended to agree with the men who did the catching and who ate fish on almost every day of their lives. They too said that the cat-
Market Whimsies

fish, the Norwegian haddock, the mackerel were all excellent eating, containing more calories and vitamins than many of the popular dining-room species. They agreed that small plaice could be better than large ones. And there was nobody else to speak with equal authority. There was nobody to answer Jan’s question. So he tried altering it.

Why do people eat the fish they do? Here now the answer came more easily, though it was not a satisfactory answer. It had nothing to do with quality or with dietetics. It was a function of personality at large, the mass taste of newspapers and television, the standardised senses. That, and also an element of childhood nurture, for taste in fish could be a national thing, like taste in art. In fact, it was very similar. The first premise in both cases was: I like what I know. And the second: If it was good enough for my great-grandfather then it’s good enough for me.

Centuries of this kind of attitude had bred a set of national palates as various as flags. What was prized highly in one capital would be conveyed to the fish-meal factories of another. The waste was appalling, but if it had all stopped there then this insulation of geographical fashion would have been no more harmful than a thousand other unconscious manifestations of national consciousness. But it couldn’t stop. The fish themselves had no national prejudices and their distribution often cut across the territorial waters of one country or another. Sometimes the result was melodrama, as when the Norwegians came to hunt the basking shark in the bays of the Scottish Hebrides and found themselves faced with the harpoon of an enterprising Scotsman. At other times, there was a diplomatic explosion, as when Iceland closed large areas of her home waters to all foreign and domestic fishing vessels. But, more usually, the conflict went on unnoticed by the press and even the fishermen who were directly engaged in it had only the vaguest idea about what was happening.

Jan passed five years on a trawler without becoming aware of the most important of these international disputes, most important, that is, to the North Sea fisherman. All he knew was that the
minimum mesh size for the cod-end of a North Sea trawl was suddenly fixed at 75 centimetres and that it made very little difference to the ship on which he was sailing since it was already using a mesh larger than the regulation demanded. And, on the whole, there was little direct change in the British trawling fleet’s equipment. But that was because they were after haddock. The regulation was directed against the Belgian, French and Danish crews who were fishing for whiting.

Four hours in Britain, and one meal, had been enough to introduce Jan to the haddock. Ever since then he had grown more and more aware of its unsavoury importance in the diet of his adopted country. And indeed it was important. Only the cod and the herring could compete with it for a place on the English table: and it was more highly prized than either. It was, then, one of the fish that sold; and the trawlermen therefore searched for it. So much so, that, along with the plaice, it made up the better part of their near-and middle-water earnings.

Now, the haddock had a big and bony head. Even a small haddock had a big head, a head that could not be forced through a small-meshed net, even a haddock that was too small and too young for it to have had a chance to spawn and, thus, reproduce itself. If, therefore, the North Sea were to be fished by a numerous fleet of trawlers, each dragging a net with a 60 millimetre cod-end, then a lot of haddock would be taken out of it before they had grown old enough to spawn. If enough haddock were thus prevented from perpetuating themselves then there would obviously be a rapid decline in the total numbers of the species in the North Sea. And that was what happened in the early fifties. The situation demanded some kind of control, if the haddock population was not to become almost extinct, completely useless as a commercial fishery; and the British Government therefore suggested that a minimum mesh-size should be imposed, a mesh-size large enough to allow these immature fish to escape.

But few other nations were interested in catching haddock. The French and the Belgians, in particular, preferred the more
delicate flavours of the whiting and would not have been greatly concerned if the haddock had become extinct. And many of their vessels did fish in the North Sea. No agreement would have been worth anything unless these important fishing powers were signatories to it. And they were very unwilling to sign, for the whiting had a small, arrow-like head, a head so small that even a large whiting, a mature whiting, could have escaped through the projected meshes. There was never any question of the whiting becoming extinct. There was only the danger that, with a large-meshed cod-end on their trawls, the European fishermen would not be able to catch enough whiting to supply their home markets. Too many would escape.

An impasse seemed to have been reached, an impasse that had no foundation other than an international conflict between taste-buds. It was never wholly resolved, though a legal compromise was worked out. But British fishermen swore that the foreign ships were still using undersized nets and, occasionally, when a Belgian ran aground on a Scottish coast or some other accident of the sea permitted them to measure a doubtful net, they were able to produce some evidence in support of their suspicions.

Jan was European enough to side against his shipmates in this matter. He hated the taste of haddock. But he depended on it for his livelihood. It was one of the fish that sold and one of the fish that he caught, even after he had graduated from the North Sea to the great Faroese fisheries, so that he really owed it his first allegiance. He felt sympathy with both parties. What he was uncompromisingly against was the absurd divagation of taste that allowed such a dispute to become so important and to interfere, as at times it did, with the serious business of catching and selling fish.
CHAPTER SIX

ROUNDFISH

ONLY by catching them did he get to know them. The raucous choirs of gulls that painted the fish-market white with their droppings, the shite-hawks of the seamen, perhaps they too knew something of the fish he was after. But most men did not. They knew names, and some of them were even able to go so far as to associate a particular name with a particular smell from the kitchen, but only fishermen and a few scientists had more than a nodding acquaintance with the more important commercial species. And when Jan tried to learn about fish by looking at their carcasses displayed on ice he soon found the reason for this general ignorance.

There were so many of them. Had they all been exotic and tropical, had they differed from one another in all their basic dimensions, then it would have been easier to classify and to remember them. But thirty yards of boxed haddock looked very much like thirty yards of boxed whiting. Yet the differences between the fish, their prices, their habits of life, their food, were so fundamental that the fishing industry was built upon these differences rather than upon the many similarities. A boy brought up in a fishing community would have recognised them apart as easily as he could have told the difference between his father and his mother. But Jan had not had this advantage. It took him years to learn about fish, years at sea and years in libraries. It sometimes even struck him that a visitant from another planet might find it almost as difficult to distinguish between the human sexes.
At first he was bamboozled by the individual variations within a single species. A cod with a distorted backbone would hunch its shoulders and pass for a haddock. A young haddock, plagued with blood-sucking parasites, would become so meagre and silvery that it seemed a whiting. The range of these variations was immense until Jan became almost convinced that all fish were individuals that would defy classification. Of course, he was wrong, but his was really the best starting point for a man who wanted to understand the biological differences between fish. A know-all, who approached them with his head full of names, hake, haddock, plaice, sole, might indeed have been able to dispense with many of the difficulties that Jan had to overcome but he would have ended up as he began, knowing more about the words that described them than about the fish they described. Almost, it seemed Jan had to create his own classification. To begin with, his ideas were self-contradictory and difficult to pin down, but they were ideas gathered from experience. It was the complexity of the experience that made them difficult to order. In the end, however, he reached through to the classic biological classification, reinforcing it with facts derived from his own days at sea and from his talks with other fishermen.

There were three radically different categories of marketable fish, three, that is, if the herring were excluded and the fresh water fish, for the herring was as different from the other common marine species as they were from the salmon. These three were commonly referred to as the white fish and they consisted of roundfish, flatfish and skate. If they were classified, as they often were, by their relative financial importance, then there could be no doubt that roundfish were the best things in the sea – not that they fetched so much money individually, as some of the flat fish, but their sheer fecundity and consequent weight of numbers made them the basic bread-and-butter commodity.

Jan never found out how many different kinds of roundfish lived in the sea – something like two or three thousand, he imagined – but he didn’t need to know. Most fish caught belonged to one
single family. It supported the whole fleet, one family with about a dozen fishable species. The fantastic forms that dangled on tropical surfaces, swallowing gallons of sea water, the swift mackerel-like hunters, the tuna, the bonito, the swordfish, the flying fish and the mud skippers, he heard about them and knew they were roundfish. Occasionally even, one of them would be landed. Occasionally too, there were even stranger specimens in the net – a gigantic mud-smothered sturgeon, with its archaic knobbly scales and its odd legal status as the property of the Royal Household. But all these were finally irrelevant to the trawling fleet. They were taken by accident. They amused rather than gratified the crews. They were simple curiosities. Only one family mattered – the Gadoids.

It took Jan a long time before he could recognise a gadoid. They looked so ordinary, just like fish, like any kind of fish. There was nothing distinctive about them. They were shaped like fish, fought like fish, were caught like fish. They were a kind of idealised and generalised version of what a fish should be. They were particles of sheer fishiness, of an essential life-stuff that had somehow got separated into individual organisms. And even at that, there were times when Jan saw them heaped high to the gunwales in their hundreds and he began to wonder whether they were not really all one, all one huge and dispersed mass of fish tissue, each with about as much independence as a cell in his own body, each part of the same living creature, each an organ, a cell of fish, rather than a beast in its own right.

But, as he grew to know them better, the amorphous living matter did develop into individuals and into classes – into individuals to begin with and then into cod and whiting and haddock. Though they appeared so generalised the gadoids were not primitive fish, not even so primitive as the herring or the salmon. They were one of the most recent products of the evolutionary ascent through ever more complex series of prototypes. They were almost as successful in the sea as man had been on land, and they didn’t owe their success to the sophistication of their social be-
Roundjish

haviour, to anything that could be called intelligence, but more simply to the sagacity of flesh and bone, to sheer anatomical supremacy. It was not any single organ that differentiated them and made them supreme. Their sense of smell was not so keen as that of the dogfish, their powers of camouflage were weak when compared with those of the plaice, and the muscularity of their bodies was surpassed by species as different as the mackerel and the salmon. Yet the gadoids were spreading, were continually stealing the environments of all their marine competitors, the sea-bed and the surface waters, spreading north certainly and spreading savage-ly to the south. Probably they were originally a northern tribe: but the hake had established itself as a Mediterranean species, and the hake too was a gadoid, though it was not a typical one.

It was difficult, though, to decide on type. When a group of animals is highly successful over an enormous range of environments, then it tends to break up into a number of sub-groups, each of which is specialised and localised, furnished with anatomical features that assure it of an even higher degree of success than its more generalised ancestors would have had over some new but more limited range. And there were signs that the gadoids were undergoing this process of divergent evolution. But then what happened to the idea of type? Was the typical gadoid the specialised newcomer who now held the seeds of new evolutionary progress? Or was it the old generalised animal that was already dying out because it could not compete in any particular environment (though it could range over a wider variety of environments) with its own more highly adapted descendants? And which gadoids, anyhow, were the more highly adapted? It was so difficult to establish the boundaries of a marine environment that even this question was beyond him. He gave up all idea of 'highly adapted' and went on sheer success. By that standard then there could be only one type of the gadoid, and that type was the cod.

The cod was certainly successful. It seemed to be everywhere in northern waters. It was almost impossible to throw a net over the side of a ship without taking some cod. It lived in the shallow-
Living Silver

'est of the Scottish bays and it was equally at home in the mid Atlantic where four hundred fathoms of water might be lying on top of it. Sometimes it hunted among the waters near the surface, gobbling herring by the score. At others it slouched on the bed of the sea and fed, with democratic impartiality, on crabs and snails, cuttlefish and worms, the sand-eel, the whiting, the cod.

There was nothing it wouldn’t attack, stones and bits of wood, flatfish and roundfish, everything was gulped into the tough muscular elastic folds of its stomach. There was no hint of the fin-nicky in its gluttony.

It was, of course, a big fish; and the further north Jan went the larger his largest cod. But it was not one of the truly massive brutes that the sea sometimes breeds. Its deep bellied lines tended to make it look smaller than it was. This, the simplicity of its circular eyes, its greenbacked colouring freckled with splashes of white, all contrived to give a lazy middle-aged air, a solid bourgeois sense of proportion that was belied by the clench of its powerful jaws with their hundreds of pin-point steel-hard teeth. And then too, when Jan opened its belly and found a large crab squatting alive at the bottom of the cardiac pouch, its claws fastened deep in the walls of the stomach, a live crab being slowly digested, he would know again that the cod was no more urbane and decorous than the blossoming tentacles of a red anemone or the plunge of a harpooned whale. There were no nice beasts in the sea. The fish were all savages and many of them had cannibalistic tendencies.
Roundfish

Like most animals, the cod came home to spawn. And home, for the cod, was where the water was cold, as cold as it usually is in the Labrador current about the beginning of June. It was therefore able to breed in the North Sea itself, but only during the coldest months, the marine winter, between February and April. Anywhere was good enough provided this inverted simulacrum of the home fire was burning. The temperature was all that mattered. The female grew full of eggs, as many as six million eggs, and the milt of the male developed into a labyrinth of milk-soft spirals, as though a chimney were giving off a chain of pure white puffs of smoke in the cavern of his belly. Though only the roe was sold on the open market it was these male ‘chittlings’ that fishermen preferred. Their taste, however, was too rich for Jan’s palate. But, when both roe and milt were ripe, the cod came together, all over the North Sea and the Northern Atlantic, and begot six million children at a time. The eggs floated near the surface, an easy prey to all the numerous plankton feeders that are constantly straining these waters with gill combs or brushes of setae. The mortality of the eggs and of the young larvae was invariably enormous. Had it not always been so then the sea would long since have been over-run by cod. Even as it was they were just kept in check, and that in spite of the fact that mother cod was quite prepared to eat her own children.

The survivors who came through this dangerous infancy finally absorbed the yolk sac and started out on their own career of devouring others, plants and tiny animals to begin with, then larger and still larger beasts, until they too were ready to breed and to eat the fruit of their loins. At first the youngsters were coloured brown but, by the time they were over a foot long, they had acquired the sedate green of the adult. They would spread the three delicate, almost transparent fins, high on their backs, prod their heads upwards and search with their eyes for a moving object. Or they would bow down, move slowly along the bottom, the sensitive barbel of their lower jaw trailing on the sand of the sea-bed, waiting, hideously sensitive, for the touch of life, of movement or
of protein. In either case the end was always the same, a flick of the tail, a snap of the jaws, and then the slow digestion of a living creature in that thick muscular belly.

And the more Jan came to know about the gadoids, the more typical he thought the cod. The three flimsy fins on its back grew to represent the class as inescapably as the five-fingered hand represented the terrestrial quadrupeds. As with the land animals, it was not necessary that everything should always be in its normal structural place. A horse, for example, had only one finger and a hake had only one fin. Yet somehow the anatomical sequence was unbroken by such seemingly important deviations. They were not significant: the underlying pattern was. The barbel too seemed part of the type, though that was more difficult to understand since it was absent in many gadoids. Yet it was important that these fish should be thought of as having two main lines of communication with the world of their prey, the one through the eyes and the other through touch. That was the generalised situation, the typical one, rather than the one way track of the whiting which had no barbel. But most important of all was the egg. In the sea, as everywhere else, the most significant of biological factors is sex. Sex is the peculiarity of life. Crystals can grow, can organise material, but they don’t reproduce sexually. Therefore they cannot evolve. Only through the mechanism of sex can one generation be different from, be an improvement upon, the preceding one. The history of life is the history of sexuality, the history of the evolution of the fertilised egg. That is why the real nature of an animal, its fundamental *raison d’être*, its place in the world, its ties, its relationships, all these things are best seen in its sexual behaviour and in the early stages of the development of the fertilised egg. And the eggs of the gadoids were all the same, all very much alike; and the eggs of the cod, so small, so numerous, each with its little globule of oil that kept it floating near the surface, these eggs were the least extraordinary things about the fish.

The eggs of the haddock, on the other hand, were a good deal larger and there were fewer of them. Not that they departed from
Roundfish

the gadoid type but just that they were slightly eccentric. And perhaps it was this eccentricity that made them so hated among fishermen. In April, off the Faroes, twenty, thirty, forty baskets of haddock would come aboard in a single haul; and there were times when they all seemed to be female, all full of the large oily eggs. The trawl would be shot again and the men would sit down and set to work on the tumbling deck, trying to gut this multitude of fishes. Knife in the right hand, fish in the left, and the thumb of the left finger following the knife through the body cavity, the home of the ovaries, through the orange hosts of the eggs. At first Jan did not notice. But after a hundred fish had passed through his hand he felt a prickling in his left thumb. After two hundred it was a sore itch. After three hundred there was only a mess of spoiling blood, not festering yet but beginning to. And so it went on to the end of the trip. More than two weeks with this swollen bleeding, almost putrid bag for a thumb. And most of the others were the same. It was worse than the salt water boils that developed round their wrists as a result of the coarse friction of oilskins and the continual rub of salt water into the frayed skin. The haddocky thumb throbbed out to fill his whole body with pain. It itched through him festering even on his tongue, making food taste bad, disturbing what little sleep he could get. And still they kept coming, the haddock ready to spawn. They were shoaling together for the reproductive act. They were easy to catch. They paid well. But they hurt.

They paid better than cod. And that often seemed strange, for
they were rather ugly fish, their tiny barbel fixed to a row of dewlaps, white under the dark spade-shaped head. Though it seemed so comfortable, the cod had a graceful shape, an easy movement: it looked like an athlete. The haddock was comparatively clumsy, its lines less streamlined and its head too heavy. The haddock slouched, as it were, while the cod sauntered. And it kept even more to the bottom of the sea, its white and wrinkled rows of chins trickling sensitively forwards but close to the roughness of the ground, almost as though it was going to start ploughing the sands beneath it. Large and flattened, the head slanted back to a bull-like neck of bone behind which the black thumb-print of St Peter had been placed by a legend.

Even more than the cod, then, the haddock gave the impression of a respectable vegetarian, browsing quietly on underwater grass. But the delicate rigging of its three dorsal fins was always there to remind Jan that it was a gadoid and, therefore, a voracious carnivore. Yet the food it flicked in between its soft lips might well have seemed vegetable to a man who knew nothing of the sea. It did not move. It often branched up intricately out of the sea-bed. Green, sometimes, or red, those little encrusting or burrowing animals mimicked the leguminous pigments and often shed light on the surrounding muddy darkness. They grew with the same static finality as an oak tree and with the obstinacy of a daisy. They were not to be shifted. The haddock would shovel away the topmost layer of sand, uncover the tiny urchins that lived there in their millions, moving so slowly that they hardly seemed to move, and the haddock would soon be munching their delicate calcified skeletons or dissolving them whole in the acids of its stomach. Or again, the fish would edge over an acre of marine boulders, snatching systematically at the herbage of sedentary worms as they flowered into a field of predatory tentacles. There too, it dug brittle-stars out of their crevices and gobbled their splintering bodies. Anemones would be upturned from rocks and the spawning grounds of the herring grazed down to nudity.

The speed of the assembling haddock over grounds where her-
Ring had spawned, where the herring eggs were lying, fertilised, in clumps and clusters, forming a kind of animal rockery on the sea bed, amazed Jan. He could think of nothing that would account for it, no sense organ in the haddock that could detect its prey. They certainly couldn’t see the eggs, for they assembled from miles around. They couldn’t smell them either, or touch them. How then did hordes of the haddock assemble within hours of the herring spawning? Assemble in such vast numbers that whole populations of herring eggs were decimated? They certainly did assemble, for they were caught on the herring grounds almost as regularly as they were caught in their own spawning areas. He never learned of a satisfactory explanation though he later found that some scientists accounted for it, and for many other marine journeys, by the theory of Random Movement.

According to this theory it can be safely pre-supposed that a fish like the haddock spends most of its time in prodding about for food. Whenever it comes upon a suitable morsel, it stops to eat. But, when it finds nothing edible, it continues swimming, goes on prodding, searching. On barren ground it finds little food. It therefore does not need to stop. It swims, wakefully, hopefully perhaps, but still it swims. And, since swimming is motion, it moves over barren ground much more quickly than over rich feeding pastures. When the sea-bed is strewn with abundant food it must stop repeatedly: it eats; it hardly moves; it has, what might be called, a sit-down meal. If it is then assumed that all its movements are random, that it goes north, south, east or west with equal willingness, then it follows that each particular haddock lingers longer over areas where food is plentiful than those where it is deficient. Thus, in an area of rich feeding surrounded by a kind of sea desert where there is no occasion to stop and eat, haddock will tend to stay in the rich ground. It won’t be anything intentional. The haddock don’t want to stay there. They still move randomly but they don’t move so often or so much. They don’t need to. There is enough food to keep them busy. And all the time new haddock will be drifting in from the poor pastures.
on every side, each accidentally yet each quite quickly, because they don't have to stop to eat in the surrounding barrenness. And once inside this new rich area, which might well be rich with herring spawn, each haddock will tend to stay there, swallowing food with incessant gluttony and hardly swimming at all. There will thus be many arrivals and few departures until, say, the whole mass of herring eggs has been reduced to a level with the water on every side. Then the haddock, still moving at random, will tend to dribble out of the once rich area more quickly than they come in and the concentration will disperse. Yet the whole process will have given the impression of a purposeful movement of many fish to consume herring spawn. Theoretically, then, this vast underwater party has been celebrated without a single one of the guests realising that he has been invited: not one of them could have known where it was going. Jan learned that this could be expressed by saying that the operation was statistically purposive though individually random. All it really meant was that herring eggs were plagued by haddock without any single haddock feeling any animosity towards herring. As far as individuals were concerned, the whole business was an accident.

Yet, though the haddock was much given to this browsing behaviour, it was not limited to it. It was quite willing to eat smaller fish if it could catch them. It was like the cod, in fact, in that it would indulgently and gluttonously attack almost anything. But it was not so energetic. The small fry and the leguminous beasts were its most usual prey. It could not be bothered hunting the larger crabs and the more powerful fish. Yet it liked fish, the little ones that couldn't put up much of a fight. At times it ate almost as many of them as the cod.

These small fish were almost as important to the economy of the sea as earthworms are to that of the land. Jan did not see many of them during his fishing days. Occasionally they would tumble to the deck when he accidentally slit open the stomach of a cod or whiting but he had no time to examine them in the bustle of quick gutting. They did not often occur in trawl nets
Roundfish

and very seldom even in seines. They were too small and slipped through the meshes. And that was as it should be. For the fishermen did not want to catch these small fish. They wanted them to stay in the sea. They were much more useful in the water than out of it.

It was only after he himself had turned to biology that Jan began to be able to recognise them. Even then, however, he learned very little. The scientists knew more than the fishermen, but not much more. Their ignorance was really the logical outcome of the ignorance of the fishermen. Jan understood this better than most, much better than most scientists. For science depends upon the commonest of knowledge. To a much greater degree than is generally supposed, it is just a way of ordering what everybody already knows. This ordering leads to the discovery of minutiae and the minutiae sometimes become so significant that they dwarf the original fund of common knowledge. But even when that happens, as it has happened in physics, the common fund remains important. And, unless there is a common fund, there can be no ordering, no refinements, no minutiae, no science. And, as far as these little fishes of the north were concerned, there had been hardly any traditional basis to work on. The scientist had to find out everything on his own, create, as it were, a fund of general knowledge, before he could get down to his proper business of refining it. The result was that there was virtually no science concerned with these small fish. The study of them was seen in terms of their predators. They were known in general as factors in the internal economy of the sea. They were not known as species, still less as individuals.

Typical of them, and typical of their importance, was the Norwegian Pout, Gadus esmarkii. It was silvery, a blond fish really, and never exceeded ten inches in length. And yet its numbers were so great that there were times when Jan thought that the whole North Sea must be covered by a perpetual shoal of them. And the shoal would have been a snowfall, a continual snowfall of life suspended in the living waters. They were so white, and sliding
silently like fish-shaped flakes, that a strong current would have shaped them into a blizzard of glistening flesh. And, in spite of this vast thick snowfall, Jan first read of G. esmarkii in one of the standard text-books of local ichthyology where it was listed as ‘rare’. Only in the very recent past, by attaching a small-mesh cover to the cod-end of their trawls have the scientists been able to establish its marvellous abundance, though they have known of it for some time, chiefly from specimens rescued from the stomachs of haddock, cod, whiting and turbot. It was lucky for them that this little pout was a gadoid. That fact told them a great deal about its biology, for the biological resemblances between these marine groups is much greater than the merely anatomical. Then too, it had no barbel and, indeed, it looked a good deal like a small whiting, except that it was somewhat stumpier and its scales seemed proportionately larger and they glistened more. The forward thrust of the lower jaw demonstrated clearly that it was not a bottom feeder though it did have its full share of the gadoid voracity.

Another small gadoid was the Poor Cod, Gadus minutus. Completely unlike the pout, its globular pink body also shone, but clumsily, a brand new piggy bank at large over Dogger. When it swam, it was as though it moved under sail and was not a real fish swimming. A longish barbel dangled from its lower jaw and its eyes tended to bulge in ostentatious innocence when it was brought to the surface. Apart from those few observations, there was very little known about it, perhaps even less than in the case of G. esmarkii. It was certain, however, that there were times when the bigger commercial species fed on it with a persistence that testified to its prolific abundance.

But, though both these little fellows were important as food for human food, there was no fish equal to the sand eel when it came to furnishing a storehouse for the catches of the North Sea. Jan finally reached the conclusion that everything that lives there lives on a diet of Ammodytes. Even the sand eels themselves fed on their young or on the smaller species of sand eels, fed predomi-
Roundfish

antly on them, not just occasionally as is the cannibalistic habit of the cod. The herring ate *Ammodytes* larvae. The whiting, the cod, the plaice, the dabs, the turbot, the saithe, the haddock, everything fed on sand eels and, often, on nothing but sand eels. And yet there were always more.

How the monstrous abundance of this larder was maintained, where the sand eels lived when they were not shoaling to breed, what their pattern of behaviour consisted of, all these questions remained subject to contradictory conjectures. It had not even been established whether there were three or four or five species of them in the home waters of Britain. Only one thing was certain: that most of the commercial fish would have starved if the *Ammodytes* populations had suddenly disappeared. They were the key link in the marine food chain that joined sunlight to man. They were the animals who changed the tiny invertebrates of the sea into protein that was acceptable to white fish, and the white fish were served at the dinner table. The herring could, indeed, compete with them. But the herring itself lived largely on sand eel babies.

And yet they were there. Everything ate them and yet they were there. And in such force that a single square metre of seabed might provide a home for more than a hundred of them. No amount of depredation affected their abundance. Yet the cod laid six million eggs and the sand eel not more than thirty thousand. It all seemed impossible.

Jan found that there were at least three species, all of them spawning at different times, so that the dense spawning shoals were seldom absent from the shallow waters around the coasts. It was on these shoals that the white fish fed. Not only on them but, when they were about, they fed on nothing but them. For the shoals were vulnerable to any kind of attack, and they were attacked by almost everything that could swim. An old and ill-used dab, with its tail in tatters from a recent escape from the trawl, its body emaciated by months of starvation, its skin blotched with parasitic fungi, even such a wreck of a fish could catch
its quota of the *Ammodytes* shoals. The wriggling mouthfuls were everywhere, and they had no defence mechanism whatsoever, unless it was the unsatisfactory one of trying to burrow into the hard sand of the bottom. Nobody knew for certain, nobody knew about sand eels.

Occasionally, one of the less ambitious line boats would use them as bait. Apart from that, however, sand eels were of no direct importance to fishermen. They did not try to catch them and they knew little about them. It was here, more than anywhere else, that the scientist felt his helplessness in the face of traditional ignorance. How much easier it would have been to correct traditional errors than to efface this ignorance! Error is a kind of knowledge, inaccurate perhaps, but still the shadow of knowledge. Knowledge and error never exist independently. And wisdom is perhaps the sun that casts the shadow. And the ancestral lore of fishermen was, indeed, fouled with many superstitious errors. But, at least, it was there. And, in marine science where the collection of even a few scattered observations involved immense expense and laborious years of planning, progress thrived on this regimen of erroneous knowledge. A few observations could correct an error. They could not lay the foundations of a system of knowledge. The system had to be created by generations of illiterate fishermen who could not afford to be wrong about matters of fact, since their lives literally depended upon their being right. They had not depended directly on *Ammodytes* and therefore, they had not bothered to create myths about it. They had not made enough observations to engender a superstition. The scientists did what they could but not even the best of them could create a whole biology out of a few hundred tiny corpses.

An eel-like fish, grey and long and thin, it had pectoral and anal fins, and bore no relationship whatever to the true eels. Rather it was close to the caplin, the whitebait of Newfoundland, that runs inshore, like the grunion, to spawn on a high tide. The eggs develop in the sand until the next high springtide, two weeks later, allows the young to hatch out and put to sea. It seemed
Roundfish

more than likely that the sand eel too tried to protect its eggs by burying them but it moved only to the shallow water, never to the shore itself, and its spawning run was thus invisible to man and therefore less spectacular and less well known. Whether it too obeyed a lunar periodicity Jan did not know and never could discover. Whatever happened, the spawning system of the sand eel was effective. There were always plenty of Ammodytes. There was always food for the herring and the cod and the whiting.

WHITING

Much as most commercial species fed on these small fish, none of the other gadoids were so devoted to them as the whiting. It fed almost entirely on other fish, particularly pouts and sand eels. Unlike the cod, it had a very delicate stomach, a stomach that could never have survived the clawing of a live crab. And it looked like a hunter, like a fish built for the chase. It had no barbel, and that was a hint that it did not trickle forwards across the bottom feeling for life, for sedentary food. It probably depended on its eyes. That is the way of hunters. They may sense food with their nose or their ears but, when they come to close on their scurrying prey, they usually rely upon their eyes to fix the image and measure the distance of the necessary leap. The whiting had good eyes and it used them to hunt the swift glittering fish and the agile semi-transparent invertebrates that burrow beside them in the sea floor. That was surely the way of it, thought Jan. And his suspicions were confirmed by a couple of glances at the whiting’s streamlined body. Gone was the clumsy fluttering of the haddock, gone too the comfortable bourgeois paunch of the cod: a small peeked head.

85
a needle shape, a glitter too like that of a sewing machine in action, the silvery muscular silhouette against the darkness of the enclosing water, and the finishing sweep of a powerful tail-fin. That was the whiting. And though it might linger ponderously in mid-water, its dorsal fins spread into the shape of a silent snore, it was always ready to pounce at the least flicker of a smaller adversary and its belly was usually as close-packed with fish flesh as a can of pilchards. Shrimps were its favourite invertebrate food, though it sometimes condescended to join the haddock in grazing down the undulating gardens of the tentacles of sedentary worms. But, above all, it lived on sand eels, nothing but sand eels over long stretches of the North Sea year. Almost always, when Jan gutted a whiting, the delicate pouch of the stomach would be torn open and one, two, three, six, nine sand eels would fall, curled, half-skinned and compressed in death.

It was, of course, a smaller fish than the cod, but it was not less gluttonous. It did not range so far to the north, was almost absent from the Faroes, but it was pandemic in the North Sea and its shoals spread more densely southwards and through the English Channel. It struck Jan that its small size might be due to this more southern distribution rather than to its genetic constitution. For he had often observed that the larger fish of any species were found at the northern limit of its distribution, large haddock at the Faroes, large cod around Bear Island, large halibut in the Denmark Straits. Even with the whiting itself he imagined he could distinguish the big ones of the Viking Bank and the Shetland grounds from the smaller fish of Dogger and the Bight. But he was not dead certain. Maybe it was just because the southern part of the North Sea was fished more heavily and, therefore, the life history of the southern whiting was shorter. They did not live long enough to grow into big fellows. Maybe, but he was not sure. And a good deal of evidence was against it.

It was certain, for example, that a five year old haddock on the Faroe Bank was larger in every way than a North Sea haddock of the same age. And the same applied to cod, halibut, lemon sole.
Roundfish

Perhaps the feeding was richer in the north. Perhaps it was only some trace element, rather like a vitamin, that promoted growth. Perhaps, even, it was something genetic and resulted from the separation of the northern and southern populations. Jan didn't know. And nobody could tell him. Only one thing was certain, that the biggest fish of any given species lived in the far north.

But the gadoids were evolving. They were splitting up into highly differentiated groups of specialised species, some of them confined to corrugations and crannies in the rock-bed of the shallows while others were limited to the velvety mud of the black abyss. Very few of them were so versatile, so easily adaptable to a thousand different environments, as the cod, the haddock and the whiting. The rocklings in shallow water and the torsk in deep had very little interest for fishermen, but there were some of the more specialised gadoids that had long been institutionalised as food in the islands of the north.

LING

Of these, the chief was the ling. A green sea serpent, it lived in deep water, penetrating to all but the very deepest abysses of the Northern Atlantic. Since the days when boats were first invented, Gaelic fishermen, the men of Ossian, had hunted it with long baited lines. A glossy slimy covering lubricated its long cylindrical body that ended ventrally in a barbel so long that it might almost have been described as a tentacle. Its eyes were proportionally weak, since an animal so well furnished with organs of touch was almost certain to hunt by touch and had therefore little use for highly developed visual aids. But, if the ling did hunt with its barbel, then its barbel must have been a very efficient instrument for the chase. Ling were abundant over large stretches of
the ocean floor where food could hardly have been plentiful. Only a very successful hunter could have maintained such a population in such an environment.

Though it usually found a buyer it was not really a profitable fish from the fisherman's point of view. He had to go north for it and he had to go deep. He was exposed to troubled waters that often ran to massive seas and he had to spend a great deal of time and energy in shooting and hauling his gear. If he caught nothing else, then he could hardly hope to make more than a bare living out of his landings of rock turbot, as the fishmongers usually labelled it. Not that it bore any resemblance to the true turbot. And anyhow it lived perpetually among layers of dismal black mud. 'Rock', Jan discovered, meant the same thing to the fish trade as 'coney' meant to furriers. It was really a synonym for 'not'. 'Not turbot' or 'false turbot' or, even, 'phoney turbot' would have been a better name. But, to Jan, it seemed silly that they didn't simply call it ling; for it was an excellent fish, finely flavoured and much in demand among fishermen; and many of the other things that fishmongers referred to as 'rock turbot' were far inferior. It thus adopted a bad name in place of a good one. The roe of the ling compared well with any titbit that the sea could produce. Not that it was small. It came from a large and fecund fish. But its solid milkiness was so rich to the tongue that, by simple delicacy of flavour, it somehow put itself among the few foods that were too good to make a meal of. When the people who ate fish had known more about them, there had been no need to disguise the identity of the ling. Its own name had stood high in any calendar of favourite dishes.

Particularly in the north west of Scotland. There, among the islands, it had been more than an industry and more than a mere food for centuries. It had borne something of the status of a ceremonial dish, even though it had been economically important. It served those isolated peoples as one of the main sources of animal protein and was carefully preserved salted and dried, as a safeguard against the annual winter shortages. The men of these parts had
been like the present-day Orcadians, farmers and fishermen all of them. Sometimes Jan thought of them and he could never do so without imagining the long lean catches of ling stretched out in the last of the year’s sunlight, dangling stiffly just where the fleeces of their sheep had cavorted in the spring, drying like them, being prepared for human consumption. And these imaginations would set him off remembering the pungent taste of the boiled fish and he would wonder why his own skipper had to part with such excellent food for little more than the money it took to catch.

Two other gadoids were caught all the year round in the North Sea and its neighbouring Atlantic – the saithe and the lythe. Black jacks, the fishermen called them both and, indeed, they were almost indistinguishable. Both were energetic, streamlined. They seemed to be packed hard with muscular force, as though it was coiled hard against the skin, threatening to explode at every moment. But they must have been muscle-bound. In spite of their torpedo shapes and the fierce out-thrust of the lower jaws, they were less successful than the more graceful but less forceful whiting. Often, in summer, when his ship was anchored in sheltered water, Jan would watch the young of the saithe as they circumambulated his vessel. They would be near the surface, looking perhaps for scraps of food that the cook might throw from the galley, and the oblique shine of moonlight made them into the shadows of elongated moths. There was something clumsy, though, about their movements. Perhaps their heads were working too much, swaying unnecessarily from side to side. Jan was never quite sure. It might just have been that they were waiting for food. And anyhow, these were only the young ones. The adults he never saw except far out over open water when they hit the deck of a trawl, and that was a rather unfortunate time to view even the most graceful fish. These adults were big and savage looking, though seldom as large as a good sized cod. If anatomy spoke, however, they made up for their inches in ferocity: they bore no trace of the easy-going gestures of the cod and they were not furnished with a barbel. It was this last feature that made Jan imagine them to be
inhabitants of the upper water, very active inhabitants who hunted down the swift-moving nektonic fauna of these regions and did not content themselves with allowing plankton to drift into their mouths. Herring, he thought, might easily be their main prey. And the swift forward thrust of the lower jaw confirmed his imaginations. It was so obviously designed to catch prey that was actively swimming away from it. Yet, when either saithe or lythe came up in a trawl, they came up by the shoal, never individually, never a few at a time. When they were present, indeed, there was usually nothing but them in the cod-end. There was no room for anything else. And they were seldom found together: it was either all saithe or all lythe. If you could tell the difference between them. Jan simplified matters for himself by saying the lythe was ‘more so’. Its back was blacker; its muscles were more obviously enormous; its mouth jutted further forward; its lateral line was more highly developed.

That was the other most conspicuous anatomical feature of both fish, the highly developed lateral line. It was present in most fish, though almost atrophied in many, a kind of sluice of nerve endings that ran down both sides of the animal from the back of the head to the beginning of the tail fin. The gadoids all showed it very clearly, as in the black line that marked its course along the sides of the haddock. But, in the saithe and lythe, it was perhaps the most immediately obvious characteristic, as inalienably present as the stripes of a tiger. Since these fish were caught in large numbers, though very irregularly, over large tracts of the sea, Jan was inclined to believe that they were both shoaling species; and he could not refrain from imagining that their conspicuous lateral lines had something to do with their shoaling behaviour, even though he was aware that some other shoaling fish, like the herring and the mackerel, had under-developed lateral lines. The sense organ itself was built to receive vibrations and, although very little else was known about it, it was known to be highly sensitive. It seemed sensible to suggest that each fish in the shoal registered vibrations from its companions who were swimming beside it, and
the lateral line was the organ that would have to be used. A very sensitive lateral line would therefore allow each individual to judge accurately the distance that lay between it and those that surrounded it, and would thus be helpful in maintaining contact and in preserving the integrity of the shoal. But the mackerel, certainly, and the herring, more conjecturally, used their eyes for this job and Jan’s theory would have been a highly controversial one if he had ever dared to advance it.

Neither saithe nor lythe were particularly welcome in the fish hold. They were better appreciated on the table in the fo’c’sle than on the concrete in the market, and even the trawlermen preferred them to be disguised as fish cakes and seldom took them neat.

Apart, indeed, from one extraordinary species, the only gadoids that were sure of a good market were the old faithfuls, cod, haddock and whiting. But that one species was a very important one. Jan never sailed in a ship that went in search of it since he was concerned chiefly with the more northern waters. It did, however, occasionally visit his nets. Once, it sent him to hospital. His whole hand had become infected after one of his fingers had been deeply scratched by the sharp spine bones of a hake. Later, he had seen the jealousy in the market on the day when an Aberdeen trawler landed three thousand boxes of the same fish. By far the biggest shot he ever saw landed, it had all been caught within three days by a boat that had gone over near Norway with the idea of fishing for haddock. The accident was typical of the ways of the hake. It might turn up anywhere in the North Sea and it
sometimes occurred in enormous numbers, but it was impossible for even the best of skippers to predict its movements. They contented themselves with their luck when they caught it and with their jealousy when somebody else did. Most of the time it was represented, in the North Sea, by a few stragglers from a population that was centred well south of Ireland, probably off the French coast. But every summer it did wander north, sometimes in considerable numbers.

The Cassius of the oceans, it had a very lean and hungry look. To the hands of the deckies it presented its rows of needling teeth and its viciously spiked fin rays. Large bright scales tattooed a back the colour of printer’s ink. Its cadaverous length would have made it look as though it had not eaten for months had it not been for the bulbous white belly that was found to contain anything up to half a dozen newly interred small fish. If the stomach was empty it was usually because it had been exploded out of the mouth as the hake was raised on the trawl winch. This was a common accident, and not only in the case of the hake. The whiting, too, often inverted its stomach, the cod sometimes, the ling and the Norwegian haddock always. It was due to the sudden expansion of the air-bladder, a hydrostatic organ equivalent in some ways to the lungs of land animals, an expansion caused by the rapid drop in pressure as the fish was dragged from deep water to the surface. The gases in the air-bladder expanded into that part of the body cavity already occupied by the stomach, and the stomach was forced out of the body cavity through the only aperture open to it, the gorge and the mouth. Whenever this did not happen, there were fish in the belly of the hake, though the food did not help it to put on fat. Only the solid density of white muscle around the jagged three-winged backbone gave a clue to its voracity. That, and the teeth which stared out even more fixedly than the unlied eyes.

Almost against his will, Jan realised that he was constructing a myth around the whole family of the Gadidae. They reminded him so forcibly of some historical families, particularly the Medici.
Roundfish

They moved through the oceans with the same virulent self-assurance as the Medici had shown in Renaissance Italy, a swarm of them that tapered off into all kinds of isolation and pre-eminence but never losing the essential Medici attributes. They were always bloodthirsty, swift and important, so that they were forced to kill whatever they did not dwarf. And yet there were other fish in the sea and a few of them were even more valuable than any gadoid. There were even a few roundfish other than gadoids and some of them were fished commercially, though none were so numerous or so highly prized as the hake, cod, haddock and whiting.

None, at any rate, could compete in Britain, but there was at least one roundfish preferred to most of the gadoids in many parts of the Continent and Scandinavia. It was known variously as redfish, sea bream, Norwegian haddock and Sebastes marinus. To call it a roundfish, though, was perhaps unrealistic, for it was one of those disc-shaped fishes that swim vertically, a wobbly-looking oval, like a platter leaned against a wall. The name redfish described one aspect of it, for it was coloured a salmon pink. Not even the flesh was white. People seemed to presume that this colouring came of eating krill, the small crustaceans that swim far out in the northern waters and form a main part of the diet of whalebone whale. But it was impossible to be certain about what
the redfish ate since its stomach was invariably inverted out through its mouth by the time it reached the deck of a trawler. What ate the redfish, on the other hand, was no mystery. Sea bream was the staple diet of the halibut and the chief source of its vitamins. Jan often thought that the Norwegians, who loved smoked Sebastes, were saving themselves a lot of trouble by consuming these vitamins at their source: for redfish were easy to catch, halibut difficult.

But no country had much time for the gurnard, another numerous fish of fine flavour. Perhaps it was the unlucky angle of its snout and a consequent ridiculous severity of expression, that persuaded people it was unpalatable. Anyhow, Jan was not sorry that gurnards were unpopular. Their sharp spines made them devils to gut and he was usually quite relieved when a bundle of them was thrown over the side.

The catfish, though, was another matter. It, too, had an un-
Roundfish

fortunate physiognomy, looking rather like a punch-drunk Negro boxer who had lost a couple of his front teeth. Its deep blue blackness, however, suggested the Imperial purple rather than the stadium, though the length and strength of muscle and fin again recalled Jan to athletic comparisons. To some it might have appeared the ugliest fish in the sea, yet its flesh was among the finest. Intensely white, like the feathers of a gannet, and rather sweet it should undoubtedly have been prized as a delicacy rather than dismissed as a third-rate money spinner.

Along with it, most fishermen tended to think of the angler, perhaps because they competed in ugliness, perhaps because they were both caught in almost every haul and always in small numbers. Or perhaps it was just that they both made excellent eating. The angler reminded Jan of nothing so much as a very cold bowl of yesterday’s porridge in which two bubbles of air had somehow been petrified. These bubbles were the angler’s eyes and when it lay, a circular lump at the sea bottom, they looked vacantly upwards towards the surface. Above them, out of the centre of its head, the angler dangled a sprig of delicate cartilage. This lure
attracted small predatory fish but, just as one of them was going to
devour it, the bowl of porridge split in two, revealing one of the
largest mouths and some of the nastiest teeth in the sea; for the
angler’s jaws, like its eyes, faced upwards and its tiny tempting
lure was dangling just above the opening of these jaws. Since most
of its body was a shell of bone covered with a slimy skin and occu-
pied mainly by the immense mouth, there was little of it left for
human consumption: but that little was very good food. The tail
of the angler, tiny in comparison to the main round mass of its
body, could still weigh several pounds since anglers grew to a great
size; and it was the tail that was sold on the market though Jan
felt that it never fetched as much money as it ought to.

These examples led him to suppose that many people were easi-
ly influenced by the sight of the animal they were going to eat.
If it was a pretty little beast they were sure to enjoy it: if it was
somewhat unprepossessing or even very ugly then they revolted
and refused to nibble a bite. It was unfortunate, for some of the
best fish meat was found on these ugly creatures and the pretty
ones would soon be faced with extinction if men were going to go
on hunting them so intensively and so exclusively.

96
THE rig of a trawl varied with the ground it was fishing and the species it was out to catch. As years passed and the fish populations were reduced it grew ever more complicated and, perhaps, efficient. Certainly the trawl evolved into a more and more specific hunting instrument, the rig for whiting diverging from the haddock rig, and, in the case of the herring, even the net itself was modified to control the size and condition of the catch. Yet, apart from this last, trawls fell into rough categories, those that were meant to catch gadoids and those that were primarily designed for digging flatfish out of their rocky corners or muddy beds. Usually, in the North Sea, the rig was arranged so as to get the best of both the marine groups, to catch, that is, flatfish and roundfish in almost equal numbers. Floats on the head-rope assisted the search for the big bags of whiting and cod while the flatties were pursued by ticklers in front of the foot-rope.

Heavy chains, often rusted from long residence in the anchor locker, were slung between the wings to stir up the sea bottom and bring the flatfish out of hiding. These fish were a clumsy, fierce tribe that lounged about, sinking deep into the substratum until only their unlidded eyes rose moistly above the soil. Or, stationary, they would sleep on a bare rock bed, their bodies tuned to the irregularities of its surface and become invisible. Or, sometimes, they would ripple their fins into a motion of extraordinary elegance and float lazily but delicately through the lower levels of the water. Then, suddenly, one of them would skim, like a stone
Living Silver

flicked hard at the sea’s surface, with silent and unexpected speed toward a nearby sand eel or an unsuspecting shrimp. A single snap of the jaws would follow and the flatfish became as invisible as before. The ticklers were needed because these flatfish were, for the fishermen, the best things in the sea. He could exist on roundfish. If he wanted to live, though, he had to catch some flatties.

At first Jan thought them among the oddest brutes ever created. They were not fish. They were grotesques from a cathedral buttress that had been submerged in the Flood and brought to life by the artificial respiration of the rhythmic weight of the tides. They were biologically impossible, their tiny guts compressed into the foremost fourth of their bodies, their jaws angled into impotence and both eyes perched on the same side of their heads. Yet, when he grew to know the evolutionary cycle more fully, he realised that they were but one more manifestation of the continual, the almost regular, recurrence of different yet similar living forms. Time and time again it had happened, and the intervals had extended over millions of years, that animals had been flattened by the weight of the seas, and their anatomy changed to conform to the wad-of-paper pattern that could best support high pressures. Fish evolved not once, but at least three times and, at each appearance, they began as slim and slippery threads of life: but further evolution always took them forwards or back to the squat disc-shaped outline of one kind of flatfish or another.

Most of these species had become extinct, as most life had been extinguished in the centuries of change that brought men to themselves. But it was still flatfish that competed with the dominant gadoids for the supremacy of the seas. And they were hunted, with equal intensity, by the international fleets of trawlers. As with the roundfish, it was a single family that made the bulk of the catch – the pleuronectids. But it was a more divergent family than the gadoids and zoologists were continually shuffling it into new order. It was more divergent because there were no portmanteau species, like the cod, that spread themselves over most of the en-
The Flatties

Environments occupied by the other members of the tribe. Each pleuronectid had its own territory, its own ecological niche as the text-books put it, and it was incapable of moving out of this environment though, within it, the fish was so well adapted as to be nearly invulnerable. The species, that is, was invulnerable, though many individuals might perish.

When Jan first encountered them he mixed them up with that other tribe of flatties, the skates, but again the mating behaviour proved fundamental when he wanted to decide on their genetical relationships. Again he had to go back to sex, the sex that was kindled in the sludge of an amoeba and that exploded into poetry when Solomon was a boy; and back, too, to the juvenile fish. The flatfish did not copulate like their more primitive neighbours the skates; for they were bony fish, more closely related to roundfish like the haddock than to depressed cartiliginous fishes. They had learned to use their medium, the water, even in this most esoteric of activities, the act of reproduction. And the young fish, too, was like a salmon, like a cod, like an ordinary roundfish. It was round and elongated, swimming with an undulation of its
whole backbone. It did not look in the least like the upturned and badly made saucer that it would yet become when it was ready to descend to the bottom and hide itself under sand. But, as these larvae swam, pigment spots would concentrate, coagulate, on the right side of their bodies. Their height would increase to a degree that was out of all proportion to their growth in breadth. Finally, then, a left eye would migrate round to the right side of the body and there it would join the concentration of pigment granules that was soon to become the upper surface of a flatfish. Then, after three months of systematically indolent navigation, a tiny plaice would be ready to sink down, indolent as ever, to the sea bottom. It would lie there, and the shallow water would lie above it, and it would move, too quickly perhaps for the flatfish it was supposed to become, darting after the tiny crustaceans that were also compressed laterally in the same way as itself, the amphipods, the first cousins of what Jan called the freshwater shrimp. It would lie; it would dart; it would fan itself leisurely; but always it would be gleaming upwards like an illuminated manuscript and always its belly, opaque and white as the yellow cream of milk, deep cream with a blue streak in it, would be spread close against the ground. And the back, which was really its right side, would blaze with two invisible eyes and a system of red dots. Through their brightness they saw to it that the beast was unseen against its surface of sandy bottom. The plaice, by this time, had travelled a long way from the round egg and the lithe larva; even geographically it was a long way from them. The currents had carried it inshore through many miles of deeper water to land it accurately in the shallowness of a bay.

Because of this history people were able to understand that these fish were related to the other bony fish rather than to the flat things they resembled and that were equally at home in their native waters. Though the adults looked more like skate than like cod, yet the young, the larvae, were indubitably roundfish of the same kind as the gadoids. They did not resemble either the skates or the dogfish, and the dogfish were distant relatives of the skate.
The Flatties

Round, flat, round, flat. Two parallel processes. No one point in either system ever met a point in the other.

It was the difference that counted, though. If flatties had been roundfish, fishermen would have been much poorer. They hit the ground and ceased to be roundfish. They became plaice; they fed in the shallow grounds; they grew; they moved out into deeper water; they grew; and deeper; and grew; and grew. Slowly, as they moved into ever deepening areas, they became a better take for a trawl, and a more unlikely one: for as the population moved out it dispersed, and the plaice became ever more difficult to catch in quantity. And the increase in the size of the fish seldom made up for this decrease in their numbers. It was not even certain that there would be any considerable increase in size. Certain bays, quite shallow ones, supported heavy populations of young fish that were almost as large as the fully matured adults of many parts of the open North Sea. There was, indeed, a great deal of inconsistency in the growth rates of plaice. A bay might be filled with brawny two-year-olders while a neighbouring inlet, four miles down the coast, was populated with the puny products of three long winters. These differences, often quite startling to the scientifically minded, suggested that each small feeding area supported an indigenous population, sharply differentiated and delimited from the populations of surrounding areas. Only by postulating that the populations did not mix, was it possible to account for the radical differences in growth rate.

Some experiences and a few experiments, however, contradicted this neat hypothesis. Bright plastic tags had been pinned into the bodies of vagrant plaice and the fish thrown back alive into the sea. Days, weeks, months, years later, one of these same fish would be caught, and the tag would tell where it had last been observed. Had there been a sharp segregation between the communities of neighbouring bays, then these fish would have been found to have stayed on their home grounds between the times of their release and recapture. But that was not what happened. Often, and disconcertingly, individual plaice would be found to have un-
undertaken journeys of up to a hundred miles. Usually they had been moving north. But these experiments did not altogether dispense with the idea of isolated bay communities, for most of the fish that were observed to have travelled these considerable distances were oldish fish, at least old enough to have spawned or to be ready to spawn. It therefore seemed conceivable that the newly settled plaice gathered in shallow inlets where they fed quietly and without travelling out of them until the sexual urge drove them toward the deeper off-shore regions. There, perhaps even in the course of spawning, a mixture of populations took place and, if any individual fish made toward the shallows, it might well end up in a different bay from that in which it had originally matured. But the very largest fish kept to fairly deep waters.

If all this were admitted, there still remained the problem of growth rate differences in proximate bays, but these could be simply accounted for by supposing that certain stretches of inshore water were rich in the invertebrate life upon which the plaice fed while others were poor in it. If a single fish happened to be lucky enough to undergo metamorphosis from round larva to flat fish on one of the rich grounds, then it would grow more quickly than its more unfortunate blood brother that had been carried by a freak of the sea currents to a neighbouring inlet where few invertebrates lived and where, perhaps, many other young plaice were already hunting for them. In this interpretation, food became almost as effective in defining races within a species as genetic differences were usually taken to be.

Jan was fond of plaice. He imagined their stippled bodies sliding with feathery smoothness but cold as a dragon over the seabed, each gulping its wormy or molluscan prey. No account of its bionomics, however, internecine or otherwise unprepossessing, ever damped his enthusiasm in the sheer beauty of the fish. The cleft ridge of its brow was almost sagacious. It was imprinted on the sea floor, regally like the seal of a king, its colours rich, lively, unquenchable, the colours of a philosopher who knew life to be so evil that there was nothing to do but rejoice. The plaice was al-
ways soberly gay. And yet it was not a fish to oppose itself to circumstances. It did not fight its environment, but accepted it. The fish became one with the sand it lived on. It changed its colours: it was never twice the same. Over every bank it altered as it ranged always in tune with the bed on which it lay, though it was never a bed of its own making. Yet the plaice converted it into itself by a gentle adaptation. It did not become the colour of the sand. No. The fish changed itself. It changed into such a rich conflagration of contrasting and harmonising colours that the sea floor on which it lay became an extension of its own pattern. It did not hide itself. The sea hid under its fins. And that was what Jan loved, the gay supple strength of the plaice, its refusal to accept any environment as uncongenial or unalterable – the moral courage.

Of course, Jan was naive. Plaice were not like that. Plaice were fish, were stupid, had no morality. Yet Jan’s love of them was a moral love. It had a great affect on his life. They had a stability he had long aimed at, the stoic stability which does not care what happens and which yet goes on to attempt to make the best happen.

It was found chiefly in their feeding. They ate anything, like the cod. But they were not so murderous. They could lie still, disappear for months on end, sucking in water through a comb of sand, breathing in their watery way, not feeding. For three months of most years they practised this ascetic discipline. They starved. They hid themselves in sand and went without food. They grew thinner and, as the sea’s year grew colder, they themselves became more cold. Yet they did not hurry. They did not move or attempt to force the pace of the tides. They lay hidden and waited. Then the sun would come. The marine plants would begin their annual regeneration. And the animals that lived on these plants would enter again on their cycle of reproduction. The waters warmed, and the blood of the plaice warmed with them. Then, finally, it woke. It struck. It killed and it ate. There was a greater economy in its way of life than Jan had found among the gadoids.
Living Silver

What the plaice wanted, it took. But it did no unnecessary slaughter. When it did not need food it slept, not lazily in an after-dinner sort of way, but deeply and for months on end. The paunchy and voracious complacency of the cod was alien to the plaice. It was smooth, freckled, hard, cold, abstemious and gluttonous, like an artist.

And, in its feeding habits, the plaice was as typical of flatfish as the cod of gadoids. Compressed bodies seemed to result in repressed activity, especially during the winter months when most marine animals tended to eat a depleted diet and, therefore, to hunt less intensively. The huge silence of the bell of a jellyfish was reduced to the appearance of a microscopic weed. Some of the sea squirts were desiccated. Other sessile invertebrates shrank into various comatose conditions. But a backbone could not diminish. So all fish were forced to keep their full stature. If they belonged to those restless groups that could not stop fidgeting though the prospects of food were as thin as their own bodies, they might even have to act more quickly and more continually than in the plentiful summer months. Most fish, however, curtailed their activity by eating less, so that there was usually a difference in the summer and winter rates of growth. The story of this differential growth was recorded in their scales and their earbones, or otoliths, as the same story was told on land by the rings of a tree. By reading the number of thin lines and thick that ran through these hard parts, the age of any individual fish could be easily ascertained. In flatfish, the diet was often reduced to the point of complete starvation. A full-grown plaice seemed to be able to survive the three coldest months of winter without eating anything whatsoever. And flatfish contrasted with gadoids in this respect. Though the roundfish did often reduce or change their diet, they never did so with the same thoroughness as the flatties. Only the mackerel did that, mackerel that shoaled even to sleep, in the deep Atlantic waters off the coast of France, millions of mackerel laid side by side on the bottom so that they covered the stone substratum with the blue-striped life of their bodies and the
sea came to lie on a bed of living tissue. They too, like the flat-fish, did not eat during their hibernation. They were even more rigid in their observance of the annual fast, and slept together with never a movement of the tail. Their winter quarters, too deep to feel the effects of currents, must have been fetid with their exhaling breath, a fishy version of the Black Hole of Calcutta.

Plaice did not shoal. They lay apart, each burying itself on its own ground. And there they waited for the return of warmer water and the impulse to hunt and kill. They would feed occasionally, if food became easily available; but they would not disturb themselves with any effort to hunt it. The only signal to which they responded was the rattle of a trawl chain behind them, bumping on the ground and making it rumble as in a miniature earthquake. They fled from the trawl. They did not know what it was, any more than land animals understand about forest fires. They just fled. There was no time to begin to try to understand. There was just the absolute necessity for flight. Jan could sympathise with their fears but could never really get to know what happened in the mind of a fish. Naturally, it was too elementary. His own knowledge didn’t really help him to realise how fish minds worked; their stubborn ignorance was beyond all his powers of comprehension. He could not even imagine the kind of messages that reached their brains, how visual they were, how auditory, how olfactory, how well or badly organised. Was it only a hint of shadows moving that they saw? or was it a shape? Did the rumble of the trawl come to them as a distinct sound or as some indefinite tension in the surrounding water? Perhaps, even, they did not sense the net at all? Maybe it was just that the other fish were fleeing, so they fled too? It was impossible to understand them because it was impossible to know even the elements of their behaviour, far less the knowledge in them that prompted it. All he could do was remember that the fish did run away from the trawl. And that was too obvious to be very meaningful.

Since the bottom of the sea had hardly ever been directly observed, it was often difficult to discover even such elementary, al-
most axiomatic, facts as the flight from the trawl. Most of what was known about fish behaviour had been deduced from a study of fish anatomy, accompanied by a very few observations on living fish in shallow tanks. And these tanks were a very poor counterfeit of the sea. There was never any guarantee that the fish did not see through the forgery and act in a manner entirely different from its natural habits. Yet it was amazing how much could be learned from just looking at a fish and noting the details of its physical structure. Jan read of the great American ichthyologist, Agassiz, who initiated his course in vertebrate biology by putting a single fish in front of each of his students and saying: 'Describe that.' Half an hour later, a bright pupil would arrive with a full written description. 'Go back and look', would be the master's only comment. Four hours later, the student would return, having blotted out most of his original attempt and replaced it by another, much longer description. 'Go back and look at the thing', was Agassiz' invariable reply. After a couple of days of this, the students would be convinced that their teacher was a bore. After a week, they usually decided that they had a madman to deal with. At the end of the third week, however, they began to discover an interest in their task. By the end of a month they knew that they
The Flatties

could not describe even a single fish. There weren’t enough words in the language, not in their language at any rate. What, for example, were they going to call the bit of bone that came down the head to hide the gills? ‘An operculum’, muttered the master. And the holes in the top of the head? ‘Spiracles.’ And the shape of the tail that was divided into a large banner-like upper section and a smaller triangular one on the lower part of the body? ‘A heteroceral tail.’ And so on, until Agassiz was satisfied that they were interested enough in the things that words described to deserve a grounding in the vocabulary of ichthyology. Then he would begin his wonderfully patient disclosures of the functional and evolutionary importance of slight anatomical differences, the position of a fin, the shape of a tooth, the texture of a scale. But Jan did not have the help of Agassiz’ learning. He had to make his own interpretations.

One small point interested and puzzled him for a long time. For hours on end he studied the mouth of a lemon sole. It differed radically from the mouths of all the other fish landed at Aberdeen. It was not straight and lean, like the mouth of a snake. Most other fish had mouths like snakes, not really the same, of course, but still they were straight and they stretched back lipless as they do in snakes. But the lemon sole had lips, thick tubular lips of bright flesh, encircling a small round mouth. There was mucus too, lots of it, but then the whole body of the lemon sole was covered in mucus, a thick slippery skin of mucus, so that there was perhaps no significance in the mucus round the lips. He would look all round the market, trying to find something that resembled the mouth of the lemon sole. But there was nothing. Not, at least, until one day when he noticed the auctioneer pursing his lips over a pencil as he wrote down figures in a notebook. His mouth too became round, and Jan could see the mucus glistening on the inner surface of his lips. But what could it mean? It was no accident. Jan was sure of that, for he had studied enough biology by this time to know that evolution eliminates accidents unless they serve a biological purpose. But what could it mean?
Lemon sole had the same kind of lips as men. If the evolutionary theory of natural selection was true, it was therefore highly probable that they used their mouths for some similar purpose. But what could it be? They obviously didn’t purse their lips over pencils.

Jan thought through the various uses of the human mouth. Most of them were quite ridiculous when applied to the lemon sole. He tried to imagine their flattened hidden bodies shouting to one another from the rock-bed. Yet men did use their mouths to speak. And it was still more ludicrous to think of the fish kissing one another in the submarine coldness of the Faroes and the northern North Sea. Whatever kind of sex life was enjoyed by the lemon sole, he was sure that kissing played no part in it. He was baffled. Any other explanation seemed even sillier than his first guesses. There was nothing for it but to wait and hope for inspiration. And then, one day as he was sitting at breakfast, he noticed his landlady’s baby. It had just been washed and was lying back comfortably, very pink among the overhanging bulges of soft white pillow. A concentration so intense that it might have been mistaken for vacancy had lulled it beyond consciousness of the outside world. It was obviously very happy. And then Jan knew. Of course, that was it. Lemon soles did suck.

Later he discovered that they fed on the worms, the sedentary worms which combed a delicately microscopic mixture of life and death from the lowest layer of sea water. Animals that floated alive near the surface sank when they died, their bodies disintegrating. And there were so many of them that their bodies created a steady ooze of organic material falling on the sea-bed. It was this rain of food that served the worms, and the worms fed the lemon sole. In spite of the needs of humanity, the worms did not want to be eaten. They built houses to defend themselves against the predations of fish, either by cementing sand grains together or by a chemical secretion of calcium carbonate through the agency of glands on their skin. When danger threatened they could retreat into these tubular hovels, sometimes blocking the entrance almost
The Flatties

automatically, drawing down a kind of horny lid behind them as they retreated to safety. They were fastened firmly to these self-made fortresses by a formidable series of hooks and they could often compress themselves far back from the entrance so that it was quite a considerable undertaking to dig one of them out when its tube was exposed at low tide. And that, of course, was why the lemon sole had those strange lips. It was not like the plaice and the cod. It was not even so omnivorous as the haddock and whiting. It fed almost entirely on these worms and, if it could not catch enough of them, then it would certainly starve. And these worms had to be hunted with stealth, ingenuity and cunning if they were not to entrench themselves safely before the sole got near them. The fish therefore crept forwards, moving invisibly by the slightest undulations of its body and fins. It hardly stirred the surrounding water. That would have warned the worm, and a worm springing back into its tube was the swiftest thing alive. No twitch of the human muscle could equal it. Only the accidental agility of a splinter as it exploded from a damp and burning log, ever impressed Jan with such a pure intensity of speed. When, however, they were at their ease on the bottom – their tentacles, some of them studded with more than a peacock’s supply of eyes, all swishing silently through the water – nothing but a born hunter would have realised the need for caution. To a man they would have been plants. A lawn-mower would have done to harvest them. But the sole moved slowly. Finally he would stop close to a savoury bunch of filaments. His head would begin to arch over the worm. There would be no movement whatsoever but the sway of the worm’s feathery teeth. The sole’s head would arch higher, climb gradually, invisibly, silently, until the fish was almost upright on its tail, while its head was forming a high italic S: and then it would descend. Its thick rubbery lips would be glued to the worm’s tube. The mass of the tentacles would be bitten off and swallowed, but the head of the worm would be held by the fish and it would begin to suck, trying to pull the remainder of that succulent body out of the home that was its only safety. Usu-
ally the worm would break, somewhere near its midriff. Sometimes it managed to rescue itself completely but for tentacles that could always be re-grown. Only occasionally would the whole beast be torn from its tube and into the stomach of the sole.

And so they mauled like flocculent, soft-lipped tigers, or slush-coloured snowflakes skimming the sea-bottom, the lemons of the market, the expensive ones, the prime. Men loved them, paid for them willingly, paid five times as much as they would pay for the catfish. And fishermen therefore hunted them five times as intensively. They were the great prize. Twenty baskets of lemons and any trip was made; and twenty baskets of lemons were sometimes taken in a single haul. But only in the north, for the lemon sole was sub-Arctic fish. It was found, indeed, and numerously enough, over large areas of the North Sea, but the big ones began in the Faroes and went on to the Iceland grounds. In this, as in most other respects, it differed widely from the Dover sole that was caught by English trawlermen in the waters off Suffolk. There were some people ashore, Jan learned, who couldn’t tell lemons from Dovers. He himself, and most other fishermen, found it difficult to see any resemblance between the two species—except, of course, that they were both flatfish.

The Dover lived among mud and its own skin was mud-col-
The Flatties

oured, a kind of deep brown black, a suffocating colour. But the lemon was gay, like the fruit of its name, patterned in rich browns and stark whites, patterned in a thousand shapes and shades that were inextricably complicated, each fish so individually patterned that it might have been wearing a national costume and itself been the only member of that particular nation. For the lemons lived on the rocks, and the colours of rocks varied more extensively than the colours of mud. As in most of the flatfish, colour was dictated by the necessity for camouflage. One of the few resemblances between the Dover and the lemon was that they were both well camouflaged, but for different backgrounds. There were never any Dovers landed in Aberdeen, and that was a constant complaint among the port’s seamen: for the Dover was caught on mud, and mud was an easy medium. It did not tear the trawl. But boulders did. And the cold-water lemon lived on boulders. That was why it was coloured so variously, as variously as the sponges, the anemones, the sea-squirts, the barnacles, that lived beside it among the jungles of serpulid tentacles.

It was only when he was landing his first herring catch at Lowestoft that Jan saw Dover soles. And until then he had thought them easy to catch. But he found that they tended to live in holes, and he knew that it was difficult to fish through holes. Great holes in the ground at the bottom of the sea; it should have been obvious. That was where the mud would naturally accumulate, and the Dovers lived with the mud. It could never be easy to draw a trawl along the scoop of a deep sharp hole. How would one know when to let warp out, when to draw warp in? How would one even find the hole, small as it was, in the first place? And, then too, wrecks also accumulated on holes, and the thickness of the cascading mud tended to blur an echo-sounder’s warning. It was very easy to draw a net down into a deep hole and so knife it with the dead prow of a sunken ship. But Jan himself never fished for them and he never found out how difficult it was to catch a thousand pound’s worth of Dovers.

But he did learn about lemons. He had to. They were, for
Living Silver

many months, the chief source of his income. They didn’t clutter up the sea in spawning shoals for a spring season, like most other fish, the Dover included. No, they remained dispersed throughout the year. Each individual seemed to mature and spawn in its own good time, though the spawners were usually more of a group and less of a series of odd fish during the autumn months from August to the beginning of October. But even that fact varied from one part of a sea to another. There was no certainty about the lemon. All Jan ever knew for sure, was that it was bigger and more plentiful around the Faroes than in the North Sea and that wherever it was caught it fetched a good price.

HALIBUT

Not quite the best, though. Halibut alone did that. And halibut were very queer fish. Of the flatties they were by far the most powerful, the most streamlined and the most difficult to catch. Yet, when caught, they fetched a price that made it worth a man’s while to chase them. Wherever they existed they were supreme, even in Aberdeen fish-market. And the men who caught them, they too were supreme, but that was another story.

The halibut was a fish that nobody knew anything about. Investigations were difficult because of its human value as well as its natural life. Fishermen were not very anxious to tag a fish and throw it back into the sea when it was worth ten pounds of ready
The Flatties
cash to them. And merchants did not want scientists nosing about a buy that might make them a profit of several hundreds. So men knew little but what fishermen had observed in the course of their labours and scientists in their very limited direct observations. The halibut had big eggs. That was the main point, eggs much bigger than any of the gadoids, bigger even than any of the other flatfish. And these eggs were spawned in deep water, water that ran down to half a mile at least, and perhaps on to the full mile and over it. A mile of water, and under it animals were copulating, pairing at any rate. The thought fascinated Jan.

These fertilised eggs did not rise to the surface as did the eggs of gadoids – nor did the eggs of most of the other flatfish. But they were not glued to the bottom either. They floated in mid-water. It was only the young fish or the larvae that rose, creeping with the tides and with the winds towards shallower water and the verge of the land. This difference between flatfish and roundfish was perhaps even deeper than the distinction between the shapes of their bodies. The eggs of the halibut probably sauntered with the deep sea currents at depths of anything up to seven hundred and fifty fathoms. Nobody was very certain about what really happened because only about fifteen halibut eggs had ever been removed from the Atlantic – and fifteen was a very small number, and might give a very eccentric idea, when it came to a population of fifteen million or more, or less. For again, nobody had the foggiest notion about how many halibut lived in the Atlantic, because nobody knew where they lived. Some of the fishermen whom Jan talked to, thought that the various fishing techniques did no more than touch on the upper water limits of the population. No fishing instrument went much deeper than three hundred and fifty fathoms. Yet, according to these men, the chief concentrations of the species were found below the five hundred fathom contour. They were not touched by any human cunning. But then there were other fishermen who thought that halibut lived mainly on the deep water banks, between two and three hundred fathoms, and there was no gainsaying anybody. Jan knew nothing about it, and neither
did the fishermen themselves, and there was nobody who knew more than the fishermen. One solid fact was the size of the eggs and another was that these eggs, or the larvae that sprang from them, went inshore toward the shallows of such places as Faxa Bay, the great Icelandic centre for the preservation of young fish. And there, in water of not more than twenty fathoms, the halibut began to feed and to grow.

At first it took only the same amphipods as the plaice ate. As it grew older it graduated to larger crustaceans and larger fish. Then it turned its attention to small squids and octopods. Until, finally it was ready to start on its life work of devouring the Norwegian haddock, the sea bream. It was true, Jan found, that it alternated this pursuit with the consumption of the lumpy spikes of the spider crab, the most inedible three pound morsel that Jan had ever seen, but even this gargantuan monster of living stone did not distract the halibut from its main prey, Sebastes marinus. And it was this fish that was the source of the halibut's high vitamin content, a content so high that halibut liver oil had become a medical rather than a commercial term. But where the sea bream got its vitamins nobody knew, since nobody ever saw what the sea bream ate. It always vomited whatever was in its stomach before it reached the surface. Its air-bladder expanded and out went its food. Even less, in fact, was known about it than about the halibut and until more was known about the one, nothing further could be learned about the other. The only certainty in the case of the Norwegian haddock was that the young were born in the belly of their mother: they were not spawned, as in most other fish; they were truly born, born alive, fully developed, as fully developed as a baby; more so; not an egg; not a larva; a real, though tiny, Norwegian haddock, sea bream, redfish, Sebastes. It was all the same, and it was all a mystery. Not even the one usual clue was offered. There was no way of finding out how the sea bream managed to perpetuate themselves; and there was certainly no way of discovering on what they fed.

Jan found very little enlightenment among all this palaver—sea
The Flatties

bream and large eggs, gigantic stone crabs and unknowable depths of water – but they all added up to the marled grey fish upturned on the concrete of the market so that its belly showed with a rich deep whiteness, a whiteness much deeper than any green of the waves, and a price that made its appearance as bright as that of a precious mineral. The halibut was always the goal. Every fisherman wanted halibut, but the North Sea had been fished clean of them, and the Faroes were only slightly dusty. If the big ones were wanted then the ships had to sail into the Iceland or the Greenland waters, and they had to work at depths that were inaccessible to the warps of a trawl. Only the linemen caught the big halibut, and that was why the linemen were aristocrats of the fishing community. For a large catch of halibut was an imperial trophy, signalising a victory over nature much greater than could be rewarded by any simple economic incentive. It demanded a social applause, a gesture of recognition from the entire community. And received it.

Yet trawlers did catch halibut. When they were fishing off Faroe for haddock, lemon sole and cod, they caught the occasional small halibut, chicken. Quite often there were enough of them to add up to a round ton in a trip; and a ton of halibut, however chickenish their juvenility might make them, meant a good few pounds of gold. It was because they wanted all the halibut available that so many trawls were lost over the banks of the Faroes. Heavy chains would be fastened to the quarters of the net, even when it was well known that the ground was rough and that any attempt to dig into it would probably lead to an underwater collision with some obdurate obstacle. A good haul of halibut was worth more than a net. The risk had been carefully calculated and, if the results were reasonable, it was never lamented.

Many other flatfish were not so welcome. Jan sometimes dreamed of the thousands of them that he had shovelled over the side, ton upon ton upon dead floating ton of lank rough dabs, of coarse common ones. They were, among the pleuronectids, what the small roundfish were among the gadoids. They were infinitely valuable as food to the more commercially useful species. But they
were a drug on the market and, more importantly, they were a parasite in the trawl. Unlike Gadus esmarkii and Ammodytes they tended to be caught in the meshes, even the wide meshes that were used in the north; and they sometimes cluttered the whole lint with their dead bodies to such an extent that there was little movement of water through the net and it therefore ceased to fish effectively. How often this happened was uncertain, but Jan soon became bored with the sight of big floating cod-ends full of nothing but dabs, dabs that the fishermen would eat and that he himself loved but that would fetch no worthwhile price if they were brought back for sale. They were almost as bad as weeds or jellyfish, though their slime was not so dense as the slime of weeds and they did not sting and cause skin disease like the jellyfish. They were just a monumental but living nuisance. And yet they were, unluckily, useful. They could not be exterminated. Too many good fish depended on them, the cod, the whiting, the plaice, the turbot. They all feasted on dabs, but the dabs were always as plentiful as though they were immune from predators.

The turbot particularly. Both the cod and the whiting had many other fish to gobble. But the turbot lived right in among the dabs, on the bottom in shallow waters, and it therefore ate more of them than did the roundfish that wandered aimlessly between the surface and the bed of the sea. And the turbot, of course, was a prime fish, a very valuable one.

Turbot, too, lived alone or, at best, in conjugal seeming pairs, rather like the lemon sole. And it was as exclusive in its diet as the lemon sole. Only it was not worms that the turbot ate. A glance at the head was now enough for Jan. He knew that kind of mouth, with its straight hard jaws like the lips of a snake, the powerful bones in a background of taut, lean muscles. The head, too, was huge in proportion to the rest of the body, not small and button shaped like the head of a sole. The turbot looked like what it was, an animal bent on the destruction of its own kind, a relentless cannibal. And that was probably why turbots lived in isolation from one another. Almost like eagles, each had its terri-
The Flatties

Except, of course, that the turbot looked more like an owl, ugly and silent, smooth, with only the determination of its jaws to vouch for its ruthlessness.

The turbot and its mirror image, the brill, were among the best liked fish in the market, but they were only the beginning of what began to look like an endless catalogue of flatties caught by accident in every other trawl haul. Topknots and megrim and witches and flounders, they all swam helplessly into the waiting baskets on the deck, and they were all sold, except for topknots. They were a little too small. But the prices were always the subject of a trawlerman's curse. Admittedly the megrim tasted faintly of the smell of soap, but it was a good solid fish all the same. And the witch might have more broomstick to her than flesh, but the bone at least was savoury. And the flounder. Well, Jan didn't like flounders and he never met anybody who did. But they were mainly freshwater fish and invaded the sea only when they were spawn-
Living Silver

ing. Trawlermen weren’t interested in them. But still, they were flatfish, and flatties should fetch a price, if only to protect the fishermen against the approach of the dreaded dog. They needed some kind of economic security if they were going to fight such natural enemies.
CHAPTER EIGHT

THE PRIMITIVES

The dogfish was hated. When it arrived, it came in numbers, huge numbers of boneless, grey, living materials that stretched the cod-end to bursting and left no room for more valuable catches. That was why fishermen hated it. It was the least saleable of North Sea families (two species were commonly caught, and there were many others that appeared more occasionally) and yet it crowded the sea from top to bottom so that all other forms of life became negligible in dogfish-infested areas. The swarms of them could be compared in numbers and in nuisance value only to the late spring rushes of Canadian mosquitoes. Jan heard about the mosquitoes from one of his shipmates. ‘When I was out there,’ he said, with only the trace of a brag in his voice, ‘we used to turn up our sleeves to the elbows and, if we got more than sixty bites on our arms in a minute the farmer would tell us that we couldn’t work. ‘“There’s a wee bit too mony o’ them the day”, he’d say, the flickering slave-driver.’ And the dogfish too were like that. God alone knew how many bites a man’s arm might expect in a minute’s exposure to these devils. Certainly sixty, perhaps two hundred.

When they came the trace of them thickened the echo-sounder into a laddery spider’s web of parallelish striations. One dogfish would have left no sign since it wouldn’t have had any air-bladder and the air-bladder was the chief source of fish traces. So they had to be thick, the dogfish, even to leave that powdery spider’s mark.

And air-bladders weren’t the only things that they didn’t have.
They had no bones either. Their tails were all out of shape. Their fins looked like oars. Their scales weren’t proper scales. And as for their teeth, they were only highly improper scales. At times Jan was driven to think that dogfish weren’t really fish. They were marine mosquitoes, simple nuisances, and they were nuisances only because of their numbers, not because of any special properties of their own. They were the deadest living things in the sea.

He was wrong, of course. But not so wrong as he thought he was. Innocent accuracy always imagines itself to be mistaken. Dogfish were fish, all right, but only in much the same way as a lizard is a bird. There was no fundamental resemblance between the commercial species and the dogfish except for the elementary facts that they were all animals with backbones that lived in the sea. They lived in the sea, and lizards didn’t live like birds in the air. That seemed to make them more similar. But a lot of birds never left the ground: it was the final home of both the lizard and the eagle, the ostrich and the pterodactyl. And, apart from their habitat, the dogfish was quite as different from ordinary fish as the reptiles were from their aerial descendants: perhaps, even, they were more different if only fundamentals were reckoned.

Dogfish were sharks, very little sharks, but sharks all the same. It would have been as idle to say that because pickpockets didn’t highjack bullion they weren’t criminals as it was to suggest that dogfish weren’t sharks because they were not maneaters. They were not like sharks. They were sharks, fully grown ones, no matter how small they might be.

And sharks, of course, were not an ordinary kind of fish. The retailers lulled the public by calling them ‘rock’ salmon but the
public refused to buy them at anything like the same price as it paid for salmon. Nothing could make the dogfish respectable and commercial. Dressed in its skin it looked like a long leather thong rough all round, and tough, stained by smoke. With its skin off, it was still worse, solid trickles of diluted blood interrupted by arbitrary veins. Alive it was obviously unhealthy, unappetising and greedy. Once captured it became nothing more than a sliver of deadness stretched on a slab. The fishmongers did their best but they could persuade nobody that such wretched things were salmon.

And yet, if only the sharks had been appreciated at their own value rather than as competitors of the bony fish, there was much to be said for them. Men had fished them for oil, and for meat, and for their skins, their tough tender skins that made the best leather in the world. But the skin of the dogfish was too small, its oil was inferior, and its flesh had been reduced to the status of rock salmon. They were, in fact, so nearly unsaleable that there was no reason for the fishermen to try to find them: but they were simply unavoidable.

From his experiences aboard a trawler, Jan did find out a good deal about dogfish. He ended up by thinking them more similar to whiting than to any of the other species sought commercially. The resemblance, of course, was in their behaviour: there was no biological or anatomical likeness. The dogfish and the whiting lived over the same grounds at about the same depths, and they both shoaled in immense numbers. It was just such things that they had in common: but the local intensity of both species was so great that there was seldom an overlap in catches. There was room in the cod-end for only one of them at a time.

Dogfish, like all other sharks, were cartilaginous fish. They did not have any bones, only embryonic materials for a skeleton, a flexible spare framework that was yet powerful enough to support the pull of big muscles. And Jan discovered that all fish were divided into these two types, those with bones and those without them. And he also learned that most fish landed in the markets
belonged to the bony type. The haddock and the plaice, the whiting and the turbot, the catfish and the halibut, they were all bony fish. Only the dogfish stood isolated. It swam in tides of its own making, in evolutionary currents such as preceded the whole existence of the bony fish.

The sharks were the more ancient tribe. Even among them it was possible to distinguish between the more primitive and the less. The further back the biological history went, the more marked were certain anatomical characteristics. The spines that stuck out in front of every fin tended to stick out more obviously and more numerously. The whole shape of the animal shifted into a speedier outline. The innervation of the head grew more complex. And yet, no matter how streamlined a shark might become, it would never attain to the economic decorum of a bony fish: it would never evolve, not even backwards, into a hake or a salmon.

But then again there were some ways in which the sharks seemed to be more highly developed than their marine inheritors. Among all the bony fish that Jan met at sea there was only one that had developed a similar power to protect its young – and that one was the Norwegian haddock, *Sebastes marinus*. It bore its babies, as a woman does, alive and kicking. The others simply spawned their tiny numerous unprotected eggs, most of them to be eaten by the first carnivores that came on the scene. But many of the sharks had reached a like stage. They too gave birth. They did not spawn. Even the least protective of them built up an egg that was encased in coverings as effective as the eggshell of a bird – a hard, tough, horny structure, each with a filament of fibre that attached it to the bottom of the sea, to a cranny or a ledge. Not many of these eggs were laid. That would have been impossible. Each was so complicated that it required months of construction within the belly of the female. And it was therefore important that each of these eggs should be fertilised. The sharks, therefore, copulated as the bony fish did not and every male shark had an organ of introduction, the claspers, which, though it could not be compared to the mammalian penis in any other respects, was equally efficient.
The Primitives

when it came to the business of reproduction. Two sharp flanges of cartilage held the female aperture open while the male life products were impelled into it from ripe gonads. There was no such sophisticated coupling among the bony fish, the gadoids and the pleuronectids. They just released their genital material into the water around them and there only did fertilisation take place. At first this seemed to mean that the sharks were, by far, the more highly developed class of fish.

Jan was taught that they were not. But he was left alone to work out the reasons. Why was it that this very effective method of reproduction, the same method as was employed by men and women, why was it so much more primitive than the haphazard ways of the bony fish? Jan finally decided that animals like the cod were highly developed in one respect and in one only. They were very good when it came to living at sea and making use of the sea. They were effective in no other medium. When they wanted to spawn they were able to make salt water act as though it were a part of their own bodies. The ocean was one of their organs, and it acted effectively for them. The sharks did not have this mastery over their environment. They had to adapt themselves to it. They had to grow limbs that would allow them to fertilise one another. The sea was not enough for them. They did not have the anatomical and the physiological efficiency of the cod that allowed it to lay so many million eggs in a nest of oceanic currents, nor did they have the confidence to rely upon the kindness of cold water or upon the bounty of the salt dissolved in it. The dogfish had to erect a barrier between its eggs and an inimical sea: but the cod had made friends with salt water and its eggs were fertilised and nursed to maturity by the drift and turbulence of whole oceans. Because it had become friendly with its environment, and not because it had conquered it, the cod was, perhaps, the most successful of Northern Atlantic fish.

For, indeed, there were a thousand subtleties about the cod that Jan had never noticed when he looked at it and at it alone. Its tail, for example, was so simple, a spiked flap of skin. Yet, when
he came to consider the shark's tail, he realised how much more effective was the tail of a cod, how little it tended to raise or lower the head of the fish in the water, how well it was adapted for keeping an even keel. And then, investigating further, he discovered that the cod's tail was not as he had thought, a simple structure but a very cunning simplification of many complex factors. He learned, in fact, that the tail of a cod was as simple and only as simple as the paddling limbs of a whale. They both presented an even surface to the world but they contained both a baffling intricacy of bone and muscle. The spinal column of the cod, for example, was uptilted at its hind end like that of the shark. Only a greater evolutionary art on the part of the cod's ancestors had simplified its external anatomy so that its tail fin looked like an even paddle, and no superficial hint of the millions of years of change was left untidily behind as a clue.

His courses of discovery grew longer and more difficult. Always there were new things to be found in fish that he had thought he already understood and these discoveries were always revealed by some difference between the apparent simplicity of the bony fish and the complexity of the cartilaginous ones. Yet, as he well knew, the cartilaginous fish were not the ancestors of the bony ones, any more than the lizards were the ancestors of birds. They belonged to very different zoological groups. If the whole truth of heredity were ever to be told, Jan decided that the cod might well be proved to be as distant a relative of the sharkfish as it was of the whale.

Both of the great groups of fish had evolved in fresh water, not in the sea. The gadoids and pleuronectids actually drank fresh water from salt in order to compensate for the desiccation of their blood through the gill filaments and the skin. How this was managed remained unknown. But the sharks were simpler. They too should have lost water if only the normal mineral salts in their bodies had been taken into consideration. Their blood was a good deal less salt than the sea so that there was a continual tendency for the sea to pull water out of their bodies and thus to concentrate
the salt in their tissues, bringing their blood plasma to the same consistency as itself. The sharks, however, counteracted this tendency by continually adding soluble urea from their kidneys to their blood and this urea served to stabilise their internal salinity at a level approximating to that of the sea around them. These two methods of solving the same physiological problem – the one by absorbing water against the chemical gradient, the other by manufacturing salts to decrease the gradient – were so dissimilar from one another that they could not be regarded as two stages in the same process. They were too radically different processes and, without any anatomical data whatever, they would have shown that the bony and the cartilaginous fishes did not form part of the same evolutionary sequence but that each was a sequence in itself, though each ran parallel to the other: two different lines of animals each beginning in fresh water and adapting themselves to ever-increasing concentrations of salt in their environment.

Among biologists it was often thought that the distaste of the public for the dogfish could be explained by their surplus of urea – a substance definitely excretory and therefore not likely to be palatable. But fishermen gave the lie to these theories. It was not only that large areas of the world regarded shark-fin soup as among the most delicate of delicacies, nor that many of the large sharks were highly prized for the taste of their flesh as well as for the richness of their oil: there was another group of cartilaginous fish, closely related to these massive brutes as well as to the little dogfish, and this group was hunted by the Aberdeen fishermen and eaten by them. In Aberdeen itself, in the ports of the Moray Firth and over a good deal of the farming interior, these fish were indeed among the favourite foods of the bulk of the population, though their popularity was declining as the southern fashions of England and the industrial belt moved north. This meant, of course, that the price of skates and rays was never very high but it did not prevent large numbers of them from being landed. And they always sold.

It was again the strangeness of public taste that baffled Jan. In
England, a skate would be lucky if he went as cat food, yet the Cornish mackerel sold there and supported an industry. On the eastern coast of Scotland, however, Jan couldn't give away a basket of the best mackerel, even though he had lifted them out of the sea that very morning. Some of the older fishermen in Peterhead and Buckie relieved him of one or two when he was able to assure them that the fish were almost kicking, but mackerel were not a marketable possibility. Yet the skate, shunned in England and on the west of Scotland, was very popular in the Aberdeen area. Again the absurdity of fish economics, the raw formalities of public taste, again the waste. For the skate was a good fish, chicken-white muscle inches deep, and every ounce as tender as the twilight.

Perhaps it was the look of the skate that put customers off. It was a cross between a death-mask and a petrologist's specimen. One side of it, the ventral, was all mask while the other was rough stone. And then it had a tail like a cow's, quite unlike the tail of any other fish, so that Jan found himself wondering whether there
The Primitives

were any flies buzzing at the bottom of the sea: he couldn’t imagine why a fish should have such a tail unless it was for swatting flies. But it was the ventral side, the death-mask, the witch-doctor’s disguise, that distinguished the skates most forcibly and rather horribly. Smooth, it was, of a white slimy consistency, or grey sometimes, and even smoother, a rhomboid, occasionally rounded at the edges, of smooth anonymity. And yet it was so distinctive. The mouth was a mere slit near the centre of the mask. Thin lines led up from the corners of this meagre orifice to the small nostrils and the tiny gill slits were arranged almost invisibly in two arcs of a circle, just behind the mouth. There was no expression, no nose, no eyes, nothing but the flat white smooth rhomboid, the slit of the mouth, the thin lines, and the little holes that were nostrils. Simple as it was, this mask could be huge, a white slab the size of a tablecloth upturned on the concrete of the market. It looked, then, like a flatfish. It certainly was flat, much flatter than any of the pleuronectidae, flat like a plate, a paving stone. But it was not a flatfish. It was quite different. It could perhaps have been better described as a flattened shark, a squashed dogfish, because it too was a cartilaginous fish and that made it very remote from the pleuronectids, the true flatfish.

Jan should have known it at a glance. The position of the mouth should have been enough: the little slit ran along the centre of one of the diagonals of the mask-like rhomboid. Ahead of it sloped the triangle that ended in the sharp projection of the snout. Or the whole body of the beast would be like a triangle with a tail, but even then the mouth would stay central and the pointed nose or forehead would be far out in front of it. And this, of course, was very different from the flatfish. Their mouths were the foremost parts of their bodies, as were the mouths of the cod, the salmon, the herring, the mackerel. The scientific name for bony fish, Teleostei, meant, indeed, something like ‘animals with their mouths at the front of their bodies’. But not the dogfish, not the sharks. They were like the skates, and Jan could not help thinking how silly he had been not to notice it before. The mouth
of a dogfish lay on its ventral side and there were always a good
two inches of snout tapering ahead of it before the soft whiteness
of the skin on the underside gave way to the smoky blackness of
the dorsal hide. In this it was just like the skate. Both of them
had mouths far back on their bellies so that neither could attack
anything that was swimming above them. They had to get on top
of their prey and all the subtleties of their hunting techniques
were calculated to make sure that they did so. The dogfish swam
above the shoals they were going to attack. The skates lived on
the bottom, feeding only on animals that never left the ground,
that could never get above the hard lumpy teeth at the border of
each of the skate’s lips.

It was the back of the skate that had put Jan off the scent of its
real affinities. It was a mottled variegated back, like the back of a
halibut or a plaice. Usually the colour was a dull brown but that
was just a background colour. All kinds of shade and tinges, in-
tense patchworks of white, little splashes of black, cones and
spirals of orange and yellow, and mellow mixtures of so many
diverse tones that it was impossible to name them as any single
colour. This too, as in the flatfish, meant camouflage, the best.
form of protection for a sluggish animal that lives imbedded in
mud. But the skates were even more careful about possible pre-
dators than the pleuronectidae. They did not rely totally on in-
visibility. Almost all of them were garbed in an irregular pattern
of thorn-shaped spines, scales that had been modified into sharp
horny projections, large and strong enough to scrape through the
callouses of even an ancient deckie and draw blood. Young skates,
in particular, tended to glue their bellies to the deck and arch up
their backs so that they became almost like the spiny balls of a
hedgehog under attack. On the back, too, were the eyes and the
twin openings of the spiracles, highly modified circular gill-slits
that were not present among the bony fish. In the skate they were
larger than in the case of the dogfish and more important to the
life of the animal. It was doubtful, indeed, if the dogfish had any
use for its spiracles but, for the skates, they were breathing tubes.
The Primitives

When the animal lay buried in mud, these round openings stuck out into the water and sucked it down to the gills where oxygen was extracted before the water was expelled again through the same spiracles. This device probably helped to make them even more invisible than flatfish over muddy grounds and, taken together with their protective spines, accounted for their great success on many a deep mid-Atlantic Bank where even the halibut was a rarity. In such depths the struggle for survival was even more ferocious than in the shallower water of the North Sea. There was no plankton down there, and innocent grazing like that of the herring was therefore impossible. All the abyssal fishes were therefore given to tigerish attacks on one another and the skates would have been pretty vulnerable to most of the big toothed monsters if they could have been discovered.

They themselves fed chiefly on invertebrates, on the clam-like bivalves that sucked sustenance out of the decaying fragments of mud. That was why they had those huge flat crunching teeth, like the molars of a cow, in their grim little mouths. Clams had heavy shells and, before they could be eaten, these shells had to be crushed by the skate. But, once crushed, a succulent meal resulted, the same meal as primitive man had fed on, so that his movements could be followed by the refuse piles of the molluscan shells left behind him. The skate, however, left no refuse. After splintering the shell, he swallowed the whole animal, dissolving a good deal of the hard parts with the acidic juices of his stomach.

In this, at least, he was like the plaice but the more Jan learned of his structure the fewer other resemblances he could find. The lateral fins of the flatfish were small: a skate was almost all fin, two gigantic triangular flaps of flesh held out by cartilaginous rays. It was with his fins that the skate moved. His tail was too narrow, too whip-like, for him to be able to propel himself forward with it, so he undulated above the sea-bottom with fins extended like wings. He flew in an element more dense than any bird could make use of. And he flew remarkably quickly. For these fins were highly muscular. They were the meat of the skate. They were
what people ate. And the tiny pouch that contained the intestines of the fish seemed too small to Jan. It simply could not absorb enough food to supply energy to these massive wings. That, again, was like a flatfish. Their guts too were excessively small, the body cavity reduced to a hollow on the ventral side of the forward quarter of the animal. But it only served to remind Jan of the chief difference between flatfish and skates, a difference that struck him as even more important than such basic anatomical ones as the absence of bone and the presence of spiracles. It was the difference in orientation.

Top and bottom, back and belly, they were all meaningless terms when applied to flatfish like the pleuronectidae. Because their larvae went through that strange metamorphosis transferring both eyes to the same side of the head and thus allowing the fish to lie on its left side in the case of the plaice, halibut and sole, on its right in the turbot and megrim, there was no strict telling what was the back and what was the belly. With the skates, however, there was no doubt whatever. They were orientated like dogfish, dogfish that had swum through a tight powerful mangle and had been depressed. The more forward of the side fins had then been inflated, had grown out of all proportion, and thorny spines had appeared on the back and tail, but there had been no developmental change in the structural organisation of muscle to cartilage and nerve to brain as had happened in the true flatfish.

As usual, the real affinities of the skate were shown in its methods of reproduction. Like the sharks they copulated and bore few young. Four or five eggs in a year was probably as much as they ever produced but these eggs usually survived. They did not have to float high in the plankton, natural fodder for any passing carnivore. They did not lie in dense concentration of the seabottom, attracting whole shoals of voracious haddock. They were not small unprotected things, vulnerable to the first hypha of an insatiable silent fungus. No, the eggs of skate were big and complicated, bigger even than those of the dogfish. They were bulging oblongs of dark brown horn, each corner extending into a thin
but firm holdfast, and, behind this casing, an immense yellow yolk floated visibly. So elegant were these eggs that fishermen had long known them as mermaid’s purses and they would, indeed, have made a charming addition to the accoutrements of these melancholy females. The tendrils at each of their four corners attached them to rocks or wrecks at the sea bottom and their colour was such that they must have been almost invisible. The large yolk meant that the young were supplied with enough food for several months growth and could emerge into the cold obscurity of their native environment as miniature adults. There was no need for a defenceless larval stage. And even the fact that there were not too many eggs helped to protect them since there was never a dense concentration of them on any stretch of the sea-bed and they did not therefore attract the hordes of predators that sometimes erased a race of herring.

Jan came in contact with half a dozen species of skate, but most of them were so similar to one another that he was unable to tell them apart until after he had received a scientific training. There was one, however, that was quite distinctive. Fishermen usually referred to it as the grey skate or the ray. It was much smoother than the others, its spines reduced to jutting dots and so dispersed over the body that they often had to be looked for. It grew to a great size, about six feet broad, and was shaped into a very precise rhomboid with sharp corners. But it was the fish’s belly that gave it a name, a blue grey belly, smooth and slimy, but quite unlike the deep whiteness found in all the other skates.

Fishermen grouped most of the other common skates together, calling them rokers or thorn backs – though the true thorn back was only one among five. And Jan heard of other queer types, rays that had stings in their tails like wasps, rays that generated electricity and stunned their enemies into inactivity with a shock, rays that swam swiftly on their broad fins near the surface of the Mediterranean and sucked their prey out of the plankton in the same way as herrings, basking sharks and whalebone whales. When attacked they descended heavily on their assailant, crushing him
to death: their descent was carefully calculated and to an enemy it must have been like standing under a load of steel when it was being lowered by a crane. He heard of these things, but he never saw them. They did not frequent the cold grey banks that had, by this time, become his home for three out of every four days in the year.
EVEN the first-class passenger as he files aboard the *Queen Mary* or fastens his safety belt in the seat of a Constellation, knows the discomfort of it. Or, rather, he is psychologically perturbed by the efforts of the shipping company or BOAC to ensure his comfort. Everything seems so tidily at hand, the preparations for his arrival have been so overwhelming, that he is inclined to worry lest he should be expected to stay aboard for the rest of his life. The trip, after all, is only a short one, several days or even hours. Surely there was no need to furnish a march past of the brigade of waiters and a wine cellar the size of the Great Pyramid. The phlegmatic permanence of the catering arrangements seems to threaten the transitory ebullience of his little escape from the ordinary cares of life. It almost looks as though they really expect him to live here, not just travel through.

And that, of course, is exactly what is expected. Most people live, especially when in transit, without being at all conscious of what they are doing, certainly without suspicion that now is the last chance they will get of living through this particular moment. In seamen, who are continually in transit, this normal propensity is often greatly exaggerated so that all existence is reduced to the status of a holiday from normal responsibilities. The holiday may, indeed, involve supernormal difficulties as it does, for example, when a ship without radar is caught in a dense fog. Danger, then, is even greater than in a quiet country lane where the chances are that some madman on a motor bike will knock you down. But
supernormal dangers and responsibilities have advantages over the humdrum of country or suburb. There is exhilaration in danger and the satisfaction of knowing that one is asking more of oneself than many men ask in a lifetime. Real risks, too, are a change; and a holiday is essentially a change.

Jan, at any rate, tried to rationalise his experience of fishermen by this kind of argument. They were always just on the point of doing something but, though they often worked very hard, they were never really consciously employed on anything. From the moment they sailed, they began to plan what they would do when they came back ashore. As soon as they landed they started to make preparations for the next trip. Carrots before noses had nothing on this. The fishermen did their own pitching and they always made sure that the carrot was well beyond their reach. They absolutely refused to settle themselves and enjoy anything.

There were minor variations between one man and another but the pattern remained essentially unchanged. To a peasant, like Jan, it was an inexplicable pattern. One would boast of women, another of bottles: Jack’s beanstalk blossomed into empties in these tall tales. Then there was Charlie who talked continually of his children, two daughters; but, though his interest seemed more sensible on the surface, Jan came to understand that it had the same element of monomania as the exploits of the drunkards and the lechers. Nowhere could he find an ordinary fellow who regarded fishing as, quite simply, his trade, who did his job and then went quietly home to his wife and children, conscious of having fulfilled a citizen’s duties. At first the extravagance and intensity of his shipmates struck him as a kind of desperate madness but, as his own experience of the sea increased, he found that he himself was being infected by it, that he too was spending every penny of his three weeks’ earnings during his three days ashore, that he too was thinking always in terms of the immediate future, never of the long run, never of the present. His peasant backbone revolted against him and he was able to stabilise his way of life but only at the cost of becoming a social blackleg, only by isolating
he himself and refusing to allow his comrades to develop into friends. During all his six years on trawlers, this constant isolation was a source of pain.

Ordinarily people find it very inconvenient to be on bad terms with their workmates or colleagues. It isn’t very nice to have them whispering curses just within hearing range, and then they start holding up the tools for the job, interfering as much as they may with the quality of the work. And the sense that the firm, the owners, are behind a man doesn’t do much to make the gap more tolerable. On a ship, these factors are magnified. Jan had to carry an extra gutting knife because he knew that if one broke there would be nobody to find him another. But that kind of thing was usual ashore. More than once he was nearly hauled over the side when, as the nets came up, a colleague decided to take a rest and thus left Jan to support the whole weight at a bad moment of the swell. Then again, he grew used to overhearing stories about goody two shoes. The words would float out to him on the breath of a blizzard or they would worm their way through the grizzly calm of a fo’c’sle filled with smoke and sleeping men. Such things had to be accepted, and hundreds ashore have to put up with similar inconveniences. But they were just the beginnings of his troubles. Not only did he have to work with these men but he also had to live with them. There was no corner into which he could creep and be alone, not even for ten minutes.

It began on his first morning at sea. The evening before had been bad enough. They had sailed at midnight, three sober men and nine drunk ones. Most of them had got to sleep without mishap. Jan and another Pole did the steering. But then, at four o’clock, he had to find a change of watch. It was easy enough. There were two drunks in the fo’c’sle, labouring punches at one another with a grotesque lack of agility. When they occasionally lunged, one at a time or both together, into an occupied bunk there would be a snort of discomfort to interrupt a snore; and then the snore would continue as though nothing had happened. Jan managed to separate them and dispatched one of the drunken
Living Silver

boxers to the wheelhouse, but he was left alone with the other and had to endure a yarn of some ninety yards close type about how a bottle of whisky had got broken and how the bee had effed the effing bottle and beeing well refused to buy a new effer, and how he would show the effer that he couldn’t eff his effer with impunity.

At seven, Jan had had one hour’s sleep. His mouth felt like the flooded part of a coal mine and his head as though he had spent the night in a kippering kiln. He staggered up the steel companion-way and out to the green brass freshwater tap where he began to wash his teeth clean of the dirty corduroy padding that smoke had wedged around them. Immediately he was mobbed by jeers. ‘What a clean little boy heeums is!’ ‘Don’t his sweat smell sweet?’ ‘Come on and give me a manicure, Johnny lad.’ Even the skipper joined in: ‘And who’s next for shaving? I’ve got my cut-throat with me, lads.’ Jan completed his ablutions but, while he was drying his face, toothbrush, toothpaste and a cake of soap were knocked through the scuppers and over the side by an accidental flick of a hose that had somehow started squirting. Jan himself was drenched in salt water.

Never again was it quite so bad. He had learned that it was not the done thing to wash one’s teeth on a trawler. It was still worse to shave, except after entering port. And, indeed, he didn’t want to do either once work began. From the moment the first trawl was shot till the time when the skipper mumbled in his best-disguised and most off-hand voice: ‘All right, lads, you can wrap it up now!’ there was not a moment free for such luxuries as washing. Shoot, haul, shoot, haul, and the winches clattering as though determined to break through the deck, and the net torn in a dozen places, and the knee-deep thousands of kicking fish, and the ice yellowing and melting in the pounds, the slush-wells clogging and the whole hold flooding, the rhythm pounded through every corpuscle of his blood and his head was a sleepy whirl of half-formed wishes, all subordinate to a deep, deep will to sleep, to sleep for hours and days and centuries, sleep, sleep, and never wake up.
The Home Run

Men did sleep on deck. They didn’t know it. Their hands went on gutting, sorting, gutting, but they were really completely unconscious of what they were doing, unconscious too of the spray flung at the back of their heads when the ship, after perching for a moment as long as a man would need to breathe deeply, flung herself again stem down into the squelching green water. A mug of stewed tea, half of it already flopped over the side, would wake them for five minutes perhaps but then the fingers would go dead again, dead though active, and the head would disappear in a miasma of sensations that were not quite half felt. If they had not been able to get away from the consciousness of their exhaustion the men would have been unable to endure it.

There were thus two reasons why they should not regard the time spent at sea as part of their real lives. For the most part they were not then fully conscious and, when they were, they had none of the ordinary amenities of life ashore. It was the opposite case from that of the luxury liner where even a short trip provoked all the comfortable solidity of a fully-fashioned county manor. Here, on the trawlers, where men really were spending the better part of their lives, everything was makeshift as in an overnight camping tent. The lack of amenities provided another reason for cursing, and it was used plentifully since a good third of the fishermen did their best to get along on a vocabulary of one word. And there were the owners. And the owners ought to have provided effing amenities. The effing bastards effing well will too. But, when they did provide them, they were often neglected and grew into early disuse. Not always, of course, and certainly not in England. But the Scottish fleet was different. It seemed to like discomfort.

The longer Jan stayed on trawlers, the more certain he became that men went to sea for a rest. Absurd as it at first appeared, it was easier to work for twenty hours a day in a howling wind of salt and ice than to go home quietly at half past five in the evening and face the burgeoning of a dissatisfied wife. Beyond the comedy, so obvious to a Workers’ Playtime wisecracker, there was the reality. Family life, ordinary everyday family life, had one quality
that was altogether lacking in the trials of the sea, one terrifying quality that cancelled out all its advantages: it never stopped. It was ordinary, yes, and it was fairly comfortable, and a lot of seamen genuinely loved their homes; but that home life, it was too awful, it never stopped, it went on and on, not only every day but every other day as well. And that was enough to make it insupportable.

Home was wonderful as an occasional haven. Therefore the sea must be made uncomfortable in contrast. But home was terrible as a continuous way of life. A man needed the freedom of an horizon in which he could stretch his eyes. He needed the movement of a ship under him so that he would be able to know where he stood. Above all, he needed a release from the finnicky tidiness of feminine fingers. Jan had seen the same thing during the war, men grumbling about the hell they were living through yet obviously preferring lice in their hair to a continual reprimand for not being properly groomed.

Then, too, when they came ashore, they could always celebrate. If the trip had been a good one, they caroused on their good fortune, on the size of the take and the price it had fetched. If, on the other hand, the trip had been nothing but a series of gales and torn nets, ending with a breakdown in the engine-room that had forced them to put back to port, why then they could celebrate the fact that they were alive at all, that they had come through it. Whatever happened there was some event to make merry about. Three weeks gives twelve men a good chance of scraping up a birthday or an anniversary between them. Or somebody could be lucky on the horses. It was all the same. The whole ship had to celebrate. The result was that even the one tiny stretch of time their work left free for their families was frittered away in masculine conviviality. They had no real home life whatever. They escaped it. And Jan became increasingly certain that they wanted just such an escape, though why he could not imagine. He came of a stolid peasant stock. But he did begin to understand the lure of the sea and how it lay in the absence of womankind. Not one
woman, or two, or half a dozen, they would all have been outrageously welcome; but the whole brood of values that hide behind women's skirts, the love of safety, of security, of tidiness, cleanliness, respectability — to go aboard a small ship was to get away from all these things. The only feminine objects in a fishing fleet were the ships themselves. And they, of course, made the usual feminine demands. They had to be kept clean and painted and polished. But, at least, a man did not have to do the scrubbing alone. There were always a couple of his buddies to lend him a hand.

As the years passed, Jan heard more and more of the new trawler fleets that had been building since the war. He did not see them, except occasionally as a dot headed north across the horizon, but from what he heard he often wished that he sailed on them. They were completely different from the rusty coal-carrying vessels of Aberdeen. They were either diesel driven or they were oil-burning steam ships. In both cases, however, and this was what most interested him, the crews' quarters were aft, and that meant that a deckie did not need to crawl on hands and knees across a thirty foot stretch of wind-blown capsizing deck whenever he wanted to go to bed in a gale. Then too, he was told that they had bathrooms, real bathrooms with hot and cold water, and some of the bigger ones even had separate cabins, with two berths in each, for the ordinary deckies. Eight men did not need to sleep in a single steamy semicircle, each within touching distance of every other. These ships sounded like a home from home. Some of the more experienced Aberdeen men had sailed on them but, for one reason or another, they disliked them. There was the smell of burning oil, to begin with. And then, though it was admitted that there was less movement in the quarters aft than in the fo'c'sle, there were rumours that when a gale came and the sea grew choppy, the screws of these diesel-driven ships would rise clear of the water, just underneath a man's head, and juggle every bone in his spinal column out of its proper place. They were too noisy, too fast, too wet. There seemed to be a thousand reasons against them. Jan put them all down to jealousy.
Gradually the new ships became more common. A couple of them even sailed from Aberdeen, long-distance vessels carrying two distinct crews so that, for the first time in the history of trawling, men were able to get a normal night’s or a day’s sleep. Ports like Fleetwood and Lowestoft specialised in the oil-burners, and not all of these were designed for distant waters. Before the war, the Lowestoft trawling fleet had been the most antiquated in the country. Even sailing smacks had formed part of it, along with sailing scrap-heaps that had been resigned by owners in Aberdeen, Grimsby, and Shields. Some of the smacks, however, had been converted to diesel as early as 1938 and this fact had given the Lowestoft men an inkling into the advantages of the new type of engine. If a fifty-year-old ship could be rejuvenated by it then surely a brand new diesel driven craft would compete favourably with any steamship? So, while other ports went to the dogs on steam, Lowestoft began a building programme that, within ten years of the war, gave her a fleet of small oil-burning inshore trawlers, more efficient than those of any other port in the country. To begin with, oil had been expensive but suddenly its price had plummeted and it had become cheaper to run on oil than on coal. Then, and only then, did the other ports wake up to what was happening; but, by that time, Lowestoft had a safe lead and was beginning to capture their markets.

Meanwhile Hull and Grimsby, though they had fallen far behind with their inshore fleets, had been producing new large trawlers for work in the faraway coldnesses of the Hindenberg Line and Bear Island. It was expensive to journey so far north. One week out and one week back left only one week for fishing unless the trip was to run well over the three week normal. And all the time fuel was being consumed, crews were being paid and fed, ice was melting. Had it not been for the richness of these grounds the operation would have been impossible. But the richness was there. Put any old bag over the side and she’d bring up the price of a diamond bracelet. The fish were big, too, and there were fewer wrecks and other snags, so that there was less wear and tear
The Home Run

on the nets themselves. And the catches were legendary. Jan heard of one ship that had gone to the Greenland grounds. The skipper had never fished such water before. When the trawl had been down for no more than half an hour it was already dragging so hard that steering became impossible. So they knocked out and began to haul. The wings came up, a flood of fish, while the cod-end bobbed about well to starboard. The skipper presumed that the fish in the wings would fall back into the deeper parts of the net when the wings were lifted clear. So he set the winches going. But the wings did not rise clear of the water. Instead it was the ship that moved. It tilted over and sank. The weight of fish and the power of the winches had been too much for her. They pulled her under.

Whether such stories were true or not there was no telling. There were no witnesses, no survivors, only rumours. The one certainty was that ships did disappear in these Arctic waters with an appalling regularity. Usually their loss was attributed to ‘black frost’, the nightmare god of the long-distance fisherman. Jan saw it often enough, a deep fog coming at him through the freezing air, beginning as a black horizon then gradually encroaching, smudging the contours of the ship, smothering it in a wet coldness that seemed to crunch the bones of his chest. It was, as he later discovered, vitrified water, water that had been supercooled below freezing point so quickly that it had not had time to form crystals, like snow and ice, but remained an amorphous black glass. To work on deck with a gale blowing and the black frost descending was the worst of a fisherman’s ordeals. Even the boiling stew of tea-leaves was turned to cold water as it came forward from the galley. And all the time men had to be chipping ice from the shrouds and showering hot water into the freezing scuppers. It was not, however, the black frost that sank ships, though the fact that black frost was present meant that they were already in danger of sinking. The temperature had to be well below freezing and there was usually a wind of hurricane force. The sea ran high. Every new wave climbed aboard and slushed back over, green as it
advanced, whitening into surf as it retired. But every wave left something of itself behind, a pound, perhaps, or half a stone of water, congealed into ice on the gunwales, the shrouds, the wheelhouse windows. And another wave came and left its deposit of ice, each wave coming from the same direction, each adding ballast to one side of the ship, until, finally, when even the mast was white as a pillar of salt, the ship became topheavy with ice. It turned turtle and went down.

On a single day in January of 1955 two ships with all hands had been lost in this way off the north-west coast of Iceland, but even such calamities could not deter the deep-water fleets. On the following day they were at it again, scooping hundredweights of living silver from their salt and unruly treasury. And the inshore fishermen were no less given to taking risks. After the war, when the North Sea was still a gigantic minefield, they fished it fearlessly. Most of them had spent the war years aboard minesweepers and they had thus lost the natural terror with which other seagoing people viewed the dangers of a mine at sea. It so happened that many of the best grounds were thick with explosives and, since prices were very high, the more adventurous or foolhardy among the skippers could not resist the temptations offered by a rich catch over dangerous waters. If a mine was dragged aboard, it was dismantled and thrown away. The crew might become restive and leave at the end of such a trip but a skipper who was consistently landing the biggest of marketable shots did not find it difficult to replace such deserters. He sailed again, and returned with an even bigger haul, and again, and again. Till, one day, he disappeared. Nobody could be really certain it was a mine that got him. They could only whisper rumours while the deserters congratulated themselves.

As time wore on, the minefields were cleared but so too were the fishing grounds. It became more and more difficult for an inshore skipper to make a profit on a North Sea trip. Now, indeed, he had safety but his pay-packet was no longer satisfactory. All kinds of devices were developed to increase fishing efficiency.
The Home Run

but they all seemed to have only one main effect. They denuded the grounds even more effectively than before. It became still harder to catch fish. So back to the long distance fisheries, back to the position of greatest risk: for where there was no risk there were no fish either. Jan watched from the gale-swept Roost between Orkney and Shetland as a big Hull trawler dipped heavily north eastwards into the bullying sea. She was off to Bear Island. But no, her stem slewed round towards the west. Yes, she was changing course and making now for the Iceland waters. She must have received a message from a sister ship reporting the Bear Island prospects bleak or the Hindenberg Line weather fine. The odd thousand miles to east or west made little difference. Only the final catch mattered.

But meanwhile he was in the Roost, making south, homewards to Aberdeen in A589, the Leslie James, one hundred and twenty feet of warped deckboards and bent plates. The wind was a fairish squall, force seven or thereabouts, he thought idly, but the queer stretch of water over which he was passing, where the Atlantic lashed into the North Sea and tides were ripping all creation apart, was not a pleasant patch in the best of weather. He needed a firm arm to the wheel for the rudder was kicking and, as she moved athwart the main sea, he toppled helplessly with the wheelhouse. The skipper stood in front of him, drinking another cup of tea and, since they had both slept decently when they were ‘dodging’ in the hurricane of the previous night, he was inclined to conversation. ‘It’ll be nice to see Duncansby Head,’ murmured the skipper. But Jan was silent.

He was thinking of the girl he had left in Aberdeen. He had, indeed, just decided that he would marry her. Only, if he were going to do so, he would have to get out of trawling. He was making his plans. But plans depended on money and money on the sea. So he was thinking, too, about the sea, and the men on it, and all the strangeness of it. How much fish is there, in that damned hold? How much will I make out of this trip? But he would get no answer to his questions. Nobody ever knew these
things except the mate in the hold, the skipper perched in his glass oilskin and the owners still safer and more dry in Aberdeen. It was supposed to be bad luck for the men to learn how many fish they had caught, just as practically everything else was supposed to be bad luck. Those who sailed on a Friday were sure to drown. To sail on a Sunday was to provoke the wrath of God. To speak of a minister was sacrilegious. To mention a rabbit was to ensure an accident. To talk of salmon was to sink the ship. There was a forbidden vocabulary, large enough to fill a pocket dictionary, each word banned by the superstitions of the sea. Among so much licence it was strange to observe so many taboos. He wondered vaguely if the unmentionable terms were particularly common among women. Let women try to stop us swearing. We'll show them. We'll ban their favourite words. There'll be no talk of corpses and no mention of chickens aboard.

And he found himself going back over the queer men of the sea until, in the end, he arrived back at himself, reading Conrad in a Polish translation when he was a child: and he found himself the queerest of the whole herd. And Conrad, Conrad. He had been so pitiful in Polish, where there were hardly any words to describe the seas and most of the terms for the rigging of ships were borrowed from other languages. But in English, yes, Conrad in English was a very different matter. He had the vocabulary then, and he knew how to use it. You could get something of the feel of the sea from Conrad in English. But even then... Oh, it was very difficult! Perhaps to an Englishman it would have been all right. But Jan was a Pole and he noticed the difference. It was not the sea that Conrad was describing but a series of soul-shaking commotions interfretted with the peace that passeth all understanding, the peace that is more sinister than any commotion. The English certainly never forgot that Conrad was Jozef Nałecz Korzeniowski – they even listed his books under that name in their public libraries – but they had no idea what it meant to be Josef Nałecz Korzeniowski rather than Joseph Conrad. All they knew was that, when he got drunk, he would talk to his English servants.
in Polish. They didn’t even have any ideas about whether he was
cursing them or whether he had gone shabby and sentimental.
And Korzeniowski was largely responsible for Conrad’s works.

Or maybe that was wrong. Maybe the seas that Conrad de-
scribed were just as he said they were. Maybe they lay in that in-
finite warm calm so deceptive to sailors: then suddenly tore their
bellies open and poured out their white blood beneath the knife
of a typhoon. Maybe it was like that. Jan would never know. But
he did know that Conrad’s oceans were emblems for the mystery
that obfuscated so much of Polish literature and illuminated the
rest of it as though by lightning. And he did know that there was
little resemblance between the seas that Conrad described and
those that he, Jan, sailed.

Here it was not a matter of storms and calms, though Jan had seen
storms often and calms occasionally. These northern seas had a
resonant leisurely rhythm and gave fair warning of their fits of
ferocity. They were not sudden and impulsive like the wrath of
God. They were patient, somewhat clumsy in all their motions,
rather like the proceedings in a human court of justice. Several
days sometimes elapsed before the first thickening of the grey in
the sky and the ultimate breakdown when sky and sea and air all
lost their identity and mixed into one furious element that threat-
ened to dissolve a ship as an acid would dissolve it.

It was not that the Northern Atlantic could never be surprising
in its behaviour. It often was, in the same way as a human jury
often gives an odd verdict; but the old land-lubber’s saw that there
is usually some sort of weather at this time of the year was parti-
cularly relevant. Every trip was marked by promises of good
weather, threats of bad, and hopes that cut across both promises
and threats. There was always, that is, a measured amount of un-
certainty and that was what a sailor meant by ‘weather’ unless he
was talking of a storm about which there was no uncertainty what-
soever. Conrad’s seas, on the other hand, seemed to be continu-
ally under the influence of breaks in the weather, completely un-
predictable flukes that fell from blue or leaden skies with no more
warning than a sudden sharp fall in the glass – and these flukes were never anticipated by his characters. A good North Sea skipper could not have been caught thus red-handed on his home grounds. And it certainly wasn’t the BBC that made the difference. Fishermen did listen to the forecasts but usually they smiled as they did so. ‘You’d have been all right sonny if you’d said that yesterday but the weather’s changed since then. Maybe you’ll catch up with it sometime.’ And, indeed, the weather forecasts were usually outdated by the time the trawlers got them. The trawl boards would be in, the net wrapped up in the scuppers and the ship’s stem would be standing fiercely into a heavy sea before London would get round to issuing a gale warning. Normally, in fact, the weather forecast was the weather being experienced. It was no more than a description, somewhat different from monosyllabic word-painting by men in oilskins. The weather forecasts then, had a certain aesthetic value.

Weather, yes, it was important, as important as the men, as the ship herself, and yet, for Jan, there was another and deeper rhythm to these bleak northern seas. This was inward to him. He felt it sometimes at night, like just now when the cold green sea was beating within his heart. It was the sea itself, the distance and the nearness of it, the tides that clothed its beaches in foam, waves that grew white and shaggy, waves that flickered down in sunlight to a gentle curved enamel. They were always there, the waves and the tides, and he always felt close to them. This rhythm lingered after the trip was over. It was like the prosody of a dream.

And the rhythm too of the journey, the sultry slowness of the trip out, steaming in the fo’c’sle, kippering, himself and the rest of the crew, being pickled, remembering; and then this soft-shoe shuffle home when the ship moved so quickly that he could never clearly remember any incident of the voyage. Eight knots at the most, not really quickly, but she was moving with a sly solemnity that hid from him the passage of time. If he tried to recall a return trip, all he could ever remember was the date when they left the grounds and the date when they landed. In between there was a
kind of experiential vacuum. Then, surely, he was nearest to the true rhythm of the sea. But he was forgetting the time spent in fishing itself, the hours of deadness when the brain noticed nothing, the hours of work.

He thought back on the last day of trawling. The weather had worsened from morning until it had become so bad that they had been forced to pack up. Or maybe they would have packed up anyhow. And after all, they had lost a couple of days at the beginning of the trip, so coal might be running short. As far as he could judge, the catches hadn’t been bad. There had nevertheless been a bitter nip in the air. They had stopped fishing and stowed away the whole complicated burden of the gear. Jan smiled back at the picture of himself, being sick over the side of the Caroon and imagining that he really knew what a trawl was and how to fish with it. The dear old school, ridiculous Alma Mater, it had taught him to fish with a diagram of the trawl. The equipment carried by the Leslie James was much more complex and efficient.

The first mistake of the Goldfish and his assistants had been to teach them that fish were caught with a net. It was true that, even today, a net was used for scooping them aboard the trawler but that was not the same thing at all. In the modern fishing gear, nets had been reduced to mere necessary auxiliaries of the various wires and bobbins and blocks of steel that were really responsible for tracking fish down and herding them into a trap. The net was that trap. Fish were caught in it rather than by it. A criminal is caught as soon as he falls into the hands of the police: he doesn’t need to wait until he finds himself behind prison bars. Fish were caught as soon as they felt the rustle of the wires that were chasing them. Twenty fathom of spreading wire, sweeps sometimes ten times that length, these were the police force of the trawl gear: the net was only its prison. A halibut edged up from the bottom by one of the heavy fat Dan Lenos was almost as safe as a halibut already on ice in the hold. It did indeed have a chance of escaping, but so too did a criminal in handcuffs.

Warps still weighed down to the trawl boards, as they had done
on the *Caroon*; but the others were no longer attached to the wings of the net. Inch-thick rusted wires, inch-thick and almost a quarter of a mile long, now led back from the boards to the dumpy orbs of the Dan Lenos. These in turn were fastened to an iron butterfly, heavy too and usually rusted, a long thin arc of metal divided into two arms. From the upper and longer one the top leg, thick wire again, reached back for twenty fathoms to the head-line. The shorter and lower wing of the butterfly held a similar leg of wire and it was attached to the ground-rope. This gear had been developed early in the century by some Belgians and was known as the Vigneron-Dahl, or VD gear. By this time, it was obligatory for European trawlers. To float all these auxiliary devices out into fishing position was a much more complex operation than the mere shooting of a simple trawl. Yet, with the continual depredations of men on the main grounds, they were all necessary if fish were to be caught in commercial numbers. The Dan Lenos acted as spreaders, holding the mouth of the net open, the gorge of a cage, and battering down obstacles with their thick iron studs. And the legs too tended to keep this throat open, stretching it more effectively than any pattern of boards could ever have done, and they acted also, as the lengthy sweeps did, like shepherds or sheepdogs to direct fish into the net. For Jan discovered that fish acted like sheep. When they were chased by a wire drawn over the sea bottom they ran away from it, swam forward and forward as fast as they could. They never thought of jumping over it or even of holding themselves stationary above it and letting the wire pass under them. They always went forward until, giving up hope of ever escaping, they turned at right angles and floated back into the belly of the net. By use of these various wires the catching power of any given net could thus be magnified to three or four times its original value. To think, then, of the net as the chief instrument of capture became slightly ridiculous, since it was directly responsible for only about a quarter of the catch although all the fish were finally guided into it.

The gargling roar of machinery thudded through Jan’s memory.
as he stood taut in the wheelhouse; the bag curdled clear of the surface; and, interwoven with these sounds he heard again the cry of many gulls. Jan marked out the sea by the birds he saw there, another thing that Conrad seemed to miss, their omnipresent importance as sea-indicators. The different species of them studded the horizon like mile-posts. First came the squawking teams of marauding herring gulls, inshore gluttons that were all voice and greedy little eyes, stumbling multitudinously in the wake of the ship, almost incapable of the lovely clean silent flight of the true oceanic birds. It was queer to Jan, the way the Scots, who were supposed to be a nation of seamen, talked of seagulls as though they only were found over the marine waters. For seagulls always hugged the coast, dinning about over the markets, whitening the decks of an incoming vessel with their liquid blobs of excrement, careering in disordered herds over stretches of sand and marram grass. They were never to be seen over the sea itself. They did not dive out of the morning sky with the sun, rising again from the same anonymous curve of cold water as they would sink into in the evening. They never lost sight of land. Jan disliked them. They were poseurs, he thought, with fame as sea-birds but only the clumsiest of wings and most enormous of appetites to support their claims. And the noise, the noise. They shrieked above the concrete of the market like a slaughterhouse on wings.

Out at sea, though, only the tiny kittiwakes, squatting unperturbed on a plunging mast-top, represented the true gulls. The shite-hawks, as fishermen called the herring gull, were absent and their place taken by brown skuas and dead-white gannets. Never before had Jan seen such an intense opaque whiteness as he saw in the feathers of a full-grown gannet. The young were often freckled with black but the older birds were white, a deep tranquil white that almost disguised the energy of their movements. It all looked too easy. At sea they had the same casual air as can be admired on the cricket field when a great batsman is dallying at the wicket, watching a ball come towards him: the gannet, too, was capable of the same sudden gust of power in a single move-
ment, a stroke that hoisted the ball clean into the middle of the terracing. And, when Jan came to think of it, the huge bill of the solen-goose was shaped like a cricket bat, the same kind of hefty arch, the yellow colour against the white flannels. So too when the gannet swooped, its wings clapped flat against its body and its whole form suddenly atrophied into the shape of a spear, piercing to the heart of the ocean, it was like the totality and unity of movement that is the sign of a great athlete. Jan heard stories of an old method of torture, common among pirates in the sixteenth and seventeenth centuries. Where gannets were to be found they would float a man on a plank of wood, his head only above the water, a natatory version of the stocks, and the gannets would dive directly at this bobbing head and split the skull when they reached it; and it often happened that the impact was so great that the bird itself was trapped, its beak so deeply imbedded in the man’s head that it could not dislodge itself and was left there, fluttering helplessly in the corpse, a living flag for the continent of human cruelty. Jan could believe it. The strike of a gannet was heavier than a spear and almost as fast as an arrow. It would certainly penetrate a man’s skull. And he had seen enough of torture during the war to know that some such punishment would appeal to some kinds of men.

Then on past even these mobile milestones the ship would move away from land into the territory of the petrels. There was no sea without them. Inshore, they appeared wherever rocky ledges could be found to support their nests, and over the most isolated ocean abyss there would be one species of petrel or two or four. Sometimes they would be completely isolated, skimming silently through the evening within an inch of the water. Or again there would be crowds of them, twenty or thirty at a time; but they were well-behaved, rather shy crowds, quite unlike the raucous congregations of the gulls. The fulmar was by far the commonest, a clumsy fat bird that was obviously bothered by blubber round the waistline and couldn’t be expected to fly. Or so Jan thought, when he saw them tumbling about within five yards of his ship on
a very calm day. They kept their distance, never boarding the vessel as did most of the other species, even skuas and the occasional gannet. But Jan was surprised. He had thought them almost incapable of flying as high as the mast-top. He learned that, among sea-birds, they were probably unequalled in their powers of sustained flight over distances that might exceed a thousand miles in a single journey. But the fulmar was not a fair-weather bird. It delighted in storms. It played games with hurricanes. It loathed a calm. Sometimes Jan imagined he saw it smirking as it lay back luxuriously on the crest of a twenty foot wave, the foam curdling about it as gently as down in a duck's nest, while he and all his shipmates were praying that the deck planking would hold such a vicious weight of water. And its flight too, that did look cumbersome in an inshore calm, became smooth and fast and almost effortless. A slight hitch in the angle of the right wing carried the bird a mile to starboard where a swerving hunch of the shoulders pivoted it upwards and brought it dashing backwards high over the wheelhouse of the ship. Gradually he came to understand why the Iceland fishermen had given this ghost-grey bird the status of a goddess. There was nothing anywhere in the sea to impress men with such stability and permanence, not even the rocks of the Faroe coast.

The only other petrel that he really got to know was the smallest bird of the oceans and one of the most audacious. Veering in the wind like a black snowflake, the storm petrel would sweep in from nowhere, and not a sign of land within five hundred miles, and then it would rise on the back of the gale to disappear, a diminishing dot that vanished altogether long before it reached the horizon. Sometimes one of these small birds would break a wing as it was flung by the wind against part of the superstructure of the ship and then the fishermen would tend it with more patience than they would have devoted to an injured comrade: for they admired the courage of this sea sparrow that dared to make journeys few men would have undertaken, not even in a luxurious air-liner. But their attentions were always wasted. The bird invariably died
Living Silver

in captivity. Its small heart would pant to a sudden unpredictable stop.

There were, of course, many other birds: scrawny bad-tempered shags and well-dressed guillemots that preserved a polite distance, but Jan divided the sea into the territories of the gull, of the gannet and of the petrel; the area of noise, where croaking shite-hawks reigned; the area of diving, where the solen-goose was flung down out of the sky; and the deep-water area of silence where only the fulmars nestled in the big waves and where the roar of man’s machinery was the one sound that fought against the screech of the wind.
CHAPTER TEN

PAINTED BRIGHTLY

THEY didn’t get back to Aberdeen that trip, not directly at any rate. By the time they had passed Buchan Ness the wind had shifted to the south east and was pitched beyond a full gale. Through the radio telephone the skipper gathered that the port of Aberdeen was closed. The authorities there judged it too dangerous for a ship to try to cross the bar. So the Leslie James was forced to turn into the pool behind the breakwater at Peterhead and to drop its anchor in the hard ground of the south west corner and lie at rest in the shade of the prison. Even that was not comfortable. Although the work of generations of convicts had made Peterhead safe from every other type of wind it could not keep out the sea that ran before a south easterly gale. The whole parapet of the breakwater was fluffy with white foam and an occasional green wave would be heaved bodily over the thirty foot wall. So the crew spent a nasty night, dragging their anchor in the hard ground. Jan could not sleep for the groan of the rusted anchor chain against the stem of the ship. It was directly above his bunk.

In the morning there was no sign of improvement. Aberdeen was still closed and the sea outside the breakwater was one of the worst the North Sea can offer. So the skipper whistled for a pilot and, when the tide was right, a tiny black boat cartwheeled out of the port toward the Leslie James. It lay very low in the water and, when a wave lifted it into view, Jan was impressed by the drapery of disused motor car tyres that formed its sides. Somehow it reached the trawler and the pilot leapt aboard. He was
even tinier than his boat and almost as old. Not quite a centenarian, thought Jan. But he took the ship through the gates and parked her at one of the quays of the inner harbour. The crew of the Leslie James could stretch their legs and their gullets in the pubs of Peterhead.

The skipper telephoned to the owners, the mate to his wife and Jan to his girl friend. And then he walked through the dreich town trying to figure out what he should do with himself. It was raining a driving rain that stabbed through any number of garments to find its way to the skin. There never seemed to be rain at sea, but perhaps it was just that salt water was as wet as fresh and, since one was already soaked with brine, it didn’t matter much if there was also a cloudburst. Or maybe there was no rain because there was no high land. Jan couldn’t be bothered working it out. Even his brain felt soggy.

He hardly noticed the slap on his back but turned automatically with a defensive, slightly hysterical, quickness. Then he relaxed into the broadest of smiles and answered the greeting in Polish.

It was Tadeusz, the ex-colonel from his Alma Mater at the sign of the Goldfish. Soon they were sitting together in the Italian café that is the most Scottish of village institutions. They swopped witticisms hurriedly in their native tongue for they were both language-starved with a year’s accumulation of unuttered puns. And then to politics, then back to puns, then to old friends and what had become of them, and back to tall stories. It was only after a good hour of pointless geniality that they began to talk of the things that seriously affected their lives. But the talk, when it came, was perhaps the most important conversation that Jan ever held. It changed his life completely and for the better.

Jan had long known that the jibing familiarity of trawlermen had proved too much for the democratic principles of such an officer and gentleman as Tadeusz. He had left the Aberdeen fleet shortly after going to bed with a large affectionate lobster that had somehow found its way into his bunk. But he had not given up the sea. The unexpected payment of some back pay and post-war
Painted Brightly

credits had allowed him to start up on his own as a line fisherman on the west coast. A small boat, a few lines and a large number of hooks, and he had begun selling the better class of haddock, cod and ling in Oban. There he had met a Peterhead girl who was on holiday and, his English being as bad as it still was, the inevitable had happened. So he had married her.

At the moment he was himself on holiday with his wife’s people. The weather on the west coast was too wild for a boat of twenty feet and it was discouraging the tourists who helped to employ him in his alternative profession of photographer. He told Jan long stories about the strange characters who were his wife’s kin. Fishermen all, they seemed to have organised matters so that every father was the precise opposite of his son and every daughter of her mother. The paternal grandfather was still alive, an ancient called Sandy who had spent his youth on Antarctic whaling expeditions and who retained, even at seventy-five, a strong preference for whisky over tea and for song rather than speech. He was full of yarns too, especially of Christmas day on the Antarctic, how his own ship had met a Norwegian one and the rival crews had played at football on a gigantic iceberg until they were all too thoroughly refreshed to be able to stand. Then they had sung and, when they couldn’t decide what tune should come next, they had begun an amicable battle of which Sandy still bore the scars.

Had his exuberance allowed it the old man would have been relegated to a cupboard and regarded as a skeleton. But he was all too fleshly for that role and his family had to suffer him as a real living disgrace. Nevertheless, the long absences of his youth had permitted his wife to safeguard the morality of her children, four boys and two girls, all of whom were members of a very severe religious sect. The Plymouth Brethren, that had begun among fishermen in Devon, was a mild affair when compared with the zealotry of the Peterhead Exclusive Brethren. It boasted about two thousand members, all in the North of Scotland, and its individual theology postulated that these two thousand and only these two thousand would enter at Peter’s Gate. Its members were
bound by the usual promises of abstemious parsimony common to the stricter adherents of Calvin. They were also forbidden to read newspapers or listen to radio. A visit to a cinema would have been considered as not the least of the deadly sins. Fornication itself was more tolerable to their sense of decency. A new interpretation, no matter how paranoiac it might be, of such a sentence of Divine Scripture as: ‘At that time Abijah the son of Jeroboam fell sick’, was regarded as a major scientific discovery. The discoveries of science, on the other hand, were dismissed as heresy. Even Sandy’s sense of humour was powerless against the piety of his children. It led them to dismiss him as the son of the devil and to treat him with the undisguised hatred inevitably associated with devotees of any religion of love. The eldest of his sons had, however, given Tadeusz a bride.

This girl, Anne, proved her lascivious idolatry by marrying a papist pagan. Her father would have dismissed her forever from his sight, etc., had his womenfolk not worked on him for three years to arrange the reconciliation that was the real reason for Tadeusz’s present visit. As a reconciliation it had been unexpectedly successful. The men had soon developed a mutual respect for one another until Bill had finally invited Tadeusz to join him on one of his fishing trips. For the past two weeks, then, the Pole had been sailing with his wife’s father and brothers on the Good Samaritan and he had liked it.

Jan had heard of seine-netting before this, but he had never heard any good of it. Trawlermen had as much respect for seiners as gamekeepers for poachers. They regarded them, that is, as an efficient and dangerous nuisance that ought to be outlawed – by Act of Parliament, as they would often say. The old men who acted as night-watchmen when the fleet was in port would blame the decline of the fishing industry entirely upon the seine boats. ‘When I was your age, lad, I could catch a good haddock with a hook and a bit of twine from the pier. It would be a gey man could do the like today. And why? It’s them wee boats that does it, them seine-netters, taken up a’ the wee fish afore they can grow
Painted Brightly

up into a sizable catch. They’ve scraped the bottom clean. And now they’re moanin’ and askin’ for subsidies and protection and one thing or another. What subsidy or protection did they ever give to the sea and to the fish? that’s what I’d like to know. They’re nae better than pirates, that’s what they are, nae better nor pirates.’

There was, Jan thought, probably some truth in the stories of these old-timers. But, though they showed up seine-netting as almost immoral, they did not make it into a bad business proposition. That was a function of his own eyes. He had often seen these tiny boats lurching helplessly in a swell. He knew how easy it was for them to lose their gear. He had heard vaguely of the gruelling hours of work that were necessary for a modest livelihood. None of these factors tended to make seine-netting an attractive employment. Yet here was Tadeusz assuring him that it was the best job on the sea.

Years were to go by before Jan had explained all these contradictions to himself. Even his experience at sea was not enough for that. The essential fact was that the seine net was a more effective instrument for catching fish than the trawl. This advantage was balanced, however, by the fact that the trawler was a more efficient instrument for finding fish than the seine-netter. These differences in function were joined to a conflict of interest, and so was created an intense rivalry that often led to something like economic war and occasionally to physical violence.

It went like this. The Danish Plaice Seine Net was invented by Jens Vaever in 1848 but, though it quickly established itself as a common instrument in the plaice-rich waters of the eastern North Sea, it was not adopted by British fishermen until well into the twentieth century. The first World War passed and there were still only a few seine-net vessels in the southern parts of England. But, as the nineteen-twenties wore on, fish became less plentiful in the North Sea and gear more expensive. Men began to look about for a more effective method of catching whatever fish remained. They took to the seine net. About 1925 it spread to
Scotland where it found a home from home among the independent insubordinate seamen of the Buchan coast. By the time Jan heard of it, seine-netting was the most important single method of fishing in northern Scotland.

But, though their net could catch fish, the crew of a seine-netter often had difficulty in discovering fish to catch. Their small ships could not range widely over the whole North Sea as could a trawler. The depths available to them were much more limited. And they had to find a ground that was actually rich before it was worth their while to shoot their gear. It was only natural then that, when they heard that a trawler was doing well over a particular ground, the seine-netters in the area should descend upon it. Trawler skippers, therefore, began to loathe the little boats that would arrive in droves as soon as a good haul was taken. There would be so many of them that it became impossible to manoeuvre the larger ship and, by the time they had finished, there wouldn’t be a fry to take home to the wife. Gradually, the trawlers moved out, further and further, until the near waters became almost the prerogative of the seine-netters. In this fight, as in so many other marine battles, it was the smaller vessel that won.

Size was important in a thousand ways. It determined the power available both for searching out fish and for operating the gear. The great advantage of the seine, apart from its actual efficiency, was that it required so much less power to run it. And so the economic tide turned back to the smaller ship. A ship that needed less fuel, employed a smaller crew, a ship that cost less. And that was why the seine net had taken the Scottish fishing industry by storm.

From the earliest of historic times there had been fishermen on the Buchan coast, at Peterhead and Fraserburgh, Banff and MacDuff, Buckie, Lossiemouth, Invergordon, and on up to Wick. Once they caught fish by lines. Then the great steam trawlers came and they swept the sea-floor, taking as many haddock in a single haul as the whole line fleet would have brought up in a week. Lining became unprofitable. But the men of Buchan did not have
Painted brightly

enough money to buy themselves trawlers and they did not want to work for any employer, no matter how much money he offered them nor how many ships he might own. Yet it was impossible to live on lining. Gradually the men began to concentrate on the herring and the drift net. It was their only answer. They were being driven out of the white fish industry. A few were forced into trawling. Usually they became skippers, for the south had nothing to match their resilient understanding of the changing moods and grounds of the sea. It began to look as though, with the men away on the tracks of the herring or commanding a trawler in Aberdeen, the steadfast communities of so many centuries would be broken up by the almighty steam engine. Then came the seine net. It allowed them to begin a new white fish industry, operating it from small ships within their power to buy. They could base these vessels on their home ports. They could crew them with their sons. They could live once more the settled life of their ancestors instead of being forced into traipsing around the British Isles after the glimmer of herring scales. It was no wonder to Jan that they cared little for the economic plight of the inshore trawlers which had stolen their livelihood. As a peasant Jan knew the value of a stable existence. He did not grudge the seine-netters their victory, for it was a victory of the stable community over anonymous industrial intersets. Communities do not depend on money as industries depend on it. The unit of the community is not the cheque book but the family. And Jan found himself smiling when he thought how the diesel engine had turned the tables on the industrialists. Their beloved science had betrayed them. It had given the seine-net boat the thing it needed most, a small cheap engine. The poor industrialists, it had taken them a long time to follow suit.

He went down with Tadeusz to the harbour and there, in spite of the wet wind, he saw colour such as he had not seen since the blaze of orpine and modrak in his own country. Yes, these were family boats. They were too well-taken care of, too neat, too gay, to belong to anybody but the man who worked on them. It
was such a change from the proletarian drabness of the Aberdeen quays. Jan felt instantly at home. It was the way men painted their houses in Poland, the way his mother had polished her furniture. Even their shape suggested middle-aged middle-brow middle-class solidity, broad on the beam, narrowing suddenly at the stem but wide-stermed, they might have been sea-going dumplings, each one covered in Christmas tinsel. BF 85, Bright Venture, PD 306 Spes Meliora, FR 228 Jane MacGuire, PD 194 Calm Waters, the casual names were so different from the earnest systematisation of a trawler fleet. Among these wooden vessels that could seine in winter and drift for herring in summer, he was at home. He was listening to Tadeusz. He must be careful. Maybe it was just the sound of his own language that was having this effect upon him. He must take time to think.

Jan escaped, but not before Tadeusz had made him promise to come round in the evening if his ship had not sailed. It hadn’t. By the time they met again Jan had decided. He had long known that he did not want to marry while working on a trawler. The weeks at sea were too long. The crudities of his shipmates sickened him so that he felt debauched although he was, in fact, exhausted by his resistance to debauchery. And there was the money. If half of what Tadeusz had said were true he was certain to increase his income from £10 to £15 per week and he stood a good chance of making the occasional round sum of £100 or more. It was only a matter of going into details.

But the details took a lot of going into. There were inexhaustible mines of them. Months passed before the barest plans were laid. Tadeusz knew two other Poles who were working among fish. One of them was an engineer; the other sailed from Grimsby on one of those English seine-netters that were owned by a large company. By a diversity of accidents they each had £1,000 available and Tadeusz too had the same sum. Jan had been saving pretty solidly and, though he did not have quite so much as the others, he had enough for Tadeusz, at least, to be willing to overlook the difference. Jerzy and Adam turned out to be as enthusi-
Painted Brightly

astic or as generous as Tadeusz; for it needed a minimum of four men to run a seine-net vessel and that was what they were all after. Money was not nearly so important as a good fisherman. It was the Government, in any case, that was going to provide the bulk of the finance. The Government would pay for their ship. Tadeusz had gone into that. Provided they were British citizens they would qualify for the Grants and Loans Aid to Fishermen, a scheme that had just been inaugurated.

It was designed to favour those who, like Jan and Tadeusz and Adam and Jerzy, intended to run their own boats but it was also extended to cover the larger companies which employed seamen. The scheme had been made necessary by the general decline in the numbers of the fishing fleet and the continual ageing of the ships that remained in service. Government advisers had decided to try to stop the rot before it had too great an effect on fish supplies and prices, and their method was to help finance the building of new ships by a complicated system of low interest loans and outright grants. Tadeusz had gone into the scheme in some detail. His experience of official generosity in Poland had not made him very hopeful but he soon discovered to his surprise that the authorities would be willing to give him a third of the price of the ship and lend him the rest. In the meantime, while this new boat was building, his father-in-law was willing to rent him a smaller ship that was past her best and that he was finding difficulty in selling. It was this vessel, the April Morning, that he showed to Jan.

A little wooden boat, not more than forty-two feet in length, it badly needed a repainting and, probably, more fundamental repairs. There was certainly nothing strikingly generous in the father-in-law’s willingness to let them have the use of it since they would have to make it into a much more saleable article before it became sea-worthy. Gear, too, would have to be bought, an echo-sounder rented and Jan would have to learn something about the rudiments of seining. Obviously they couldn’t start fishing immediately, but they could start planning. And they did.

Four thousand pounds began to seem like a very small sum of
money. Every moment of thought they gave to their project took away another pound or two. Diesel oil was outrageously expensive. Coils of rope cost forty pounds each. Floats and weights stood higher than ever before in the catalogues. Even paint became a major investment. And they couldn’t risk spending all their capital on the April Morning. They had to think of the Stanislaw, as they were going to call the new boat.

Then, of course, there were nets. During his last two trawler trips, Jan found himself sympathising, as he had never done before with the ship’s owners. Nets were so expensive. They were also so vulnerable, so easily shredded back to their rudiments as they were dragged along a rock floor. And every time a trawl net went something between seventy and a hundred pounds went with it. On a single Faroe trip a trawler could go through £250 in nets alone. Luckily the seine net was not so expensive as the trawl. It was a much flimsier structure to begin with, made of cotton and not sisal. Then, too, it was not so big, even though it was slightly broader, from end to end, than the trawl. Most of this width was taken up by narrow wings, similar to the wings of a trawl but overgrown, as it were, in comparison to the size of the belly and the cod-end. Seine-netting, in fact, was almost like fishing with the wings of a trawl and nothing else. Even the ropes were like further extensions of the wings, just as the wire sweeps were in trawling. The cod-end was reduced from the status of a prison to that of a cell, a cell in which there were never more than a few
Painted Brightly

fish at any single time. It was because they did not try to catch the same huge bags as a trawler that seine-men could make use of such frail cotton nets. Apart from anything else, the small crew would not have been able to handle such masses of fish. So the seiners made short but frequent hauls. That was the essence of seining. Nets down. Nets up. Nets down again, and up, and down . . . till nightfall. Sleep and a new beginning. Then back to market while the catch was still fresh. But Jan had not yet learned that way of life.

It was still a matter of sending to London, to Grimsby, to Hull for catalogues, of talking to Adam, the engineer, about jockey pulleys and belt drives and other things that he didn’t understand, of long hurried additions and subtractions endlessly repeated for ritualistic purposes, each time hoping that a new figure would emerge and the four Poles would find that they really did have some spare money. But they didn’t. Jerzy would have to use all his judgement, for it was up to him, as the most proficient seine netter among them and the skipper of their tiny vessel, to make sure that they did not injure any of their gear before they landed some fish. There was not a penny of spare capital.

Jerzy’s first act was to advise them that they could not hope to fish with anything more than five a side on the April Morning. And that was bad news, for it meant that they would have to limit their activities to the shallowest of grounds. Jan was so vague about the nature of the seine net that he wasn’t quite sure why this was so. He didn’t really know what ‘five a side’ meant but he did know that smaller boats fished the shallows and larger ones the deeper reaches. He had always thought, rather uncertainly, that it had something to do with sea-worthiness. But it didn’t. The methods of fishing were the important consideration. That was why the inshore fisheries came more and more under the control of seiners while trawlers grew bigger and bigger and went out now for perhaps two thousand miles. The little ships that were called great liners went equally far though they were little more sea-worthy than the better seine-netters.
Living Silver

The gear of a seine boat made it the most effective of inshore fishing craft, but it also limited it to the inshore waters. It would never be able to compete with the trawler and the liner over the open sea. And this limitation had merely accentuated its supremacy within its natural range, for it had forced the benignant Government to grant concessions to seiners in the face of much opposition from those interested in trawling. The whole of the Moray Firth, a vast stretch of fertile fisheries, was forbidden to the skippers of British trawlers, yet it was open to the seine boats and they made good use of it. Often the better part of the Scottish seine fleet would be concentrated entirely within its reaches. It was near to the home ports of most of the men. It was shallow. It was comparatively free from bad weather, being sheltered from the north, west and south. And it maintained a very numerous and various fish population. Tadeusz’s father-in-law habitually worked it and one of the earliest things the four Poles found themselves agreeing about was that they too would try their luck in the Moray Firth before embarking on any more original projects.
CHAPTER ELEVEN

SEINING

AND what of this gear that was so strangely superior to the trawl? Was it so very different? When Jan first saw it at Peterhead he could make nothing of it. There were lots of ropes, not just the head-ropes and foot-ropes and so on of a trawler, but a deckload of thick white 2\(\frac{1}{4}\)-inch hard laid manilla. There were so many ropes that the net became a mere appendage to them rather than the other way about. The net itself was a scrawny length of lint with a small bag, or catching part, disposed centrally. It seemed unlikely that it could hold many fish.

The seine net as he found it, was not the same thing as Vaveur had invented a century previously. That had been a much more specialised instrument designed to sweep up the millions of small plaice that are found off the Danish coast. But Scottish fishermen did not live by plaice alone. Had they tried to they would have starved. So they had adapted the techniques of the Dane to their own purposes and converted his gear into a reliable method of hunting for roundfish.

Originally the Danes had used anchor gear and many of them still did employ variants of it. But the Scots found it too cumbersome and complicated: and it was too specialised. An anchor was attached to chain and that to a thick soft coir rope: from this, which was still lying near the bed of the sea, wire led first to the mooring buoy, with its attendant chains and shackles, then to a pair of canvas buffs and so to the flagged dahm buoy. The ropes were attached, by heavy jointed steel swivels to the buffs, and the
whole complex apparatus was euphemistically styled – the moorings.

Very little sign of the moorings was left once the Scotsmen got to work. They used a floating dahn instead of an anchored one and they wrapped a few lengths of rope round the buffs; but they had no chains or coirs or mooring buoys or anchors. This fly-dragging type of gear had evolved for two good reasons. The first was that it was much less cumbersome and expensive; the second that it was more easily shifted from one ground to another and could therefore follow the swimming roundfish better than the heavy anchor gear. Once a Danish fisherman had shot that apparatus he was tied to the one spot for the rest of the day. If there were no fish to be found then he might indeed raise it and take his boat to another ground but the time lost in hauling and re-shooting would waste most of his working hours. He was therefore unlikely to try his hand when he was uncertain about the potentialities of the area his set would cover. This was all right for such a sedentary animal as the plaice, but haddock and whiting were constantly in motion and no fisherman could be certain of taking a good haul of them anywhere, though some places were more likely than others. Those who searched for roundfish, that is, had to be prepared for disappointment. They had to keep themselves mobile, be ready to investigate several grounds in one day and, finding no fish at any of them, move on to yet another where, ultimately, they would catch what they were after. And, though Scottish seiners did land large numbers of plaice and even a few lemon sole, they depended on roundfish for their bread and butter. In this they differed fundamentally from the type of their profession – the seine was essentially a plaice net and it had surprised everyone when it was first shown to be capable of catching roundfish at all. Yet it did catch them and, because seine trips were of shorter duration than trawler ones, it landed its shots in better condition; and seine men were therefore able to fetch better prices for roundfish. In the complicated economics of the industry, however, this tendency towards higher prices was largely
offset by the increased cost of transport from the seine ports which were further north than the trawler ports and therefore more inaccessible to mechanised transport.

Though the fly-dragging gear was different in many respects from the original Danish model, it used the same fundamental principle – and the principle was a queer one. It depended upon the behaviour of the fish; and Jan spent long hours trying to work out how Vaevar had come to understand this behaviour as early as 1848; the reasons for it were still unknown a hundred years later. The seine net did not catch fish. Even less than most modern types of trawl did it catch fish. It depended for its efficacy on the fish catching themselves. They literally swam into the net in their attempts to swim away from the ropes.

It went like this. The ship arrived on the fishing ground and threw the dahn and buffs over the side with a few fathoms of rope wrapped round the latter. This rope was the beginning of a coil 120 fathoms long and the beginning was on the inside of the cylinder of the coil. This part of the gear once shot, the vessel then made full speed ahead paying out the remainder of the coil as it went. The rope disappeared into the water behind it, settling towards the sea-bed. And when the whole coil had gone another one, that had been spliced into it, would begin to rumble on the deck as it too wriggled and rolled over the side and out into the water behind the vessel, and the boat turned through an angle of ninety degrees. As the end of that coil approached, the third coil then, and the fourth gone, it would again turn so that it was sailing in precisely the opposite direction to that in which it had begun, and, slowly gradually, the fifth coil went overboard. But it was not attached to another rope. It was shackled to the frail Dan Leno of wood and iron that edged the wing of the net. And the net went over aft, unrolling easily from the neat bundle in which it had been carefully stacked, wing, cod-end, and the other wing, the other Dan Leno, and so on to the other side of five ropes. One coil and turn, three coils and turn, and the last coil paid out as the ship sailed back to the dahn that bobbed a net length more than
Living Silver

120 fathoms ahead of it. This final rope was attached to one drum of the winch and, when the buffs were picked up, the free end of the first coil was swung on to the other drum.

At that point the April Morning lay with both her ropes aboard, wound on the winch that stood far forward but faced aft, and the ropes sagged down into the slack waves, downwards to the seabottom. There they formed a rectangle, corralling off almost one-fifth of a square mile of water, 180 acres, a fair sized farm, but the livestock wild and the corral itself the slaughter-house. Gulls hung above the tail of the ship where the ropes slipped out through the double roller on the starboard side of the stern. The wavelets jolted awkwardly against the gunwale as though they could barely drag themselves forward. It was a quiet sea, so quiet that the water did not seem to be comfortable. It wanted the support of a little wind. Jan stood by the side of the winch, close by one of the automatic coilers. It would soon be time to haul.

But first the engine started and they began to move forwards, quickly at first then suddenly more slowly as the ropes took the strain of the underwater gear and tautened into straight tense lines. For five minutes they went forwards, the wide angle between the ropes gradually lessening. The net that faced them, gaping emptily from the other side of the underwater rectangle, must have begun to move also. Jan could almost feel the tension being transmitted down the tightening rope. And Tadeusz started the winch, rotated it quickly then, putting it in gear, began to haul slowly, two turns a minute to begin with, then quicker, and quicker, and quicker. The ropes on the ground were now converging, the area of the corral diminishing, its boundaries swinging along the mud and sand with the soft slushy underwater sound of a man drawing a blunt knife through an apple, converging, diminishing, the angle at the stern becoming more and more acute, the wet ropes dripping through the coiler and arranging themselves in cylinders nine inches high. And the fish were flurrying forward, away from the sound of the ropes and the tremor they started on the sea floor, flurrying away as the net tiptoed forwards toward them, undul-
Seining

ating with undulations of the bottom, its gigantic wings closing upon the consternation of the fish so that it must have seemed like some huge bird of prey stepping delicately backwards and closing its wings as it did so. By now the winch was a roaring windmill of salt spray and the coils of the ropes coming in so fast that Jan was hard pressed in his job of turning them over out of the way as each came to the splice that indicated its end. The fish were still moving away from the ropes but the ropes on the bottom were lying close together, making a running lane of fish traffic. More and more of the fish were escaping, some over the ropes, some by speeding ahead of the net, some by being swept accidentally past the outside of a Dan Leno, for the wings of the net were now folded and it filtered little water.

The wings themselves came into view, a long inverted U of aluminium floats on the surface shearing out of the green and white of the wake. Jan was now at the stern of the boat. Jerzy snapped open the bar that locked the ropes in their rollers as the winch behind them snored to a full stop; and Jan leaned over to get a grip on one of the Dan Lenos. The main engine was cut and the April Morning soon lay athwart her catch. The light wings were manhandled aboard and then the cod-end was winched up over the side. A splash, and a pool of kicking fish, a few clams and razor shells, but no buzzers, no tatties, no weeds. They had somehow managed to keep to the soft sand, avoiding any areas of rock or boulders that there might have been. They had, indeed, been very lucky since none of them knew these grounds well enough for there to have been anything like skill in it. And, if that net and these ropes had been mashed by heavy gravel or cut by an ancient wreck, they would have found themselves in a very precarious economic position.

They had been lucky three times over, for the catch was a good one, three kits of haddock, two of whiting, and half a basket of plaice. And they had only just begun. Small fish, of course, very small in Jan’s eyes. He had grown accustomed to the Faroe haddock. They were usually about two feet long, and these were
Living Silver

little more than ten inches. This size difference seemed to have an effect, too, on the body proportions. They looked like a different species from big ones he had landed three weeks earlier. Their heads were smaller, he thought but he couldn’t be dead certain.

And there wasn’t time to muse about it. Already Tadeusz had thrown the buffs over the side, Adam had started the engine and the ropes had begun to uncoil downwards behind them. When had it all been done? Who had rolled the net so neatly in its place being careful that each wing would unravel smoothly when it came to be shot? Who had unshackled the split links that held the ropes to the Dan Lenos and reshackled the Dan Lenos to the opposite ends of the furthest coil? For that too must have been done since the position of the ropes was reversed as they came in. And who had fastened the pick-up ropes to the buffs? This pace was a new thing to Jan. Things didn’t happen quite like that on a trawler. Every man on a trawler was busy at his own job. He could stop and light a cigarette when he felt like it. But here everybody seemed to do everything. It was Jerzy who was now in the engine-room and Adam was standing near the winch, ready to brake it if necessary. Hurriedly, Jan finished sorting the winch. There were just enough of them for the job of gutting to be a full time occupation by itself. But he had other things to do as well.

The pace of seine-netting became familiar, but it was a gruelling pace. There were times when life aboard a trawler was looked wistfully back at, as though it had been a form of relaxation. Memories of days off Faroe, days and nights spent dallying in the fish-pond, knife in hand, gutting cod at the rate of five a minute, were recalled as a comfortable counter to the exhaustion of seining. The deep cold well of a trawler’s fish pounds was softened by these memories into the simulacrum of a sofa, and the slush of spray and slime that spilled over the yellow frontage of his frock, inlaid and glistening with the scales of fish, even that grew into a smoothly invigorating image at the back of Jan’s mind.

Yet that first day on the April Morning was one of the best he
Seining

ever spent. There was no weather, just the neurotic chopping of small irregular wavelets. And the catch was wonderful. At the end of the day, however, they had made seven hauls and had gutted twenty kits of smallish fish. By the time they docked, though, there were still several kits of ungutted whiting. But it did not matter. Seine boats often landed ungutted fish. They could afford to do so because they landed them fresh and they were sometimes forced into it by the sheer weight of their catch, the weight of numbers. Twenty kit of large cod would have been no difficult problem but, with these tiny fish, there were ten times as many of them to the kit as there would have been of Faroe cod. Yet it took just as much care and, perhaps even more time to gut a small fish as a large one.

Still, it was not the weight of physical work that strained Jan most when he took to seining. He was used to hard work. This was perhaps a little harder but not enough to complain about. What really hurt was the mental exhaustion that came from constant concentration. Aboard a trawler there had been a job to do and he had done it – patiently, precisely, industriously. And his duty had ended. Usually the job had been a repetitive boring one, like gutting fish or hauling a net, things he could do while his mind wandered soporifically among hopes for the future and reminiscences of the past. He had hardly noticed where he was. If he had been uncomfortable it had been a discomfort so deep in his animal being as to be almost inaccessible to his waking senses, a deeply buried deposit of painful consciousness. There had just been the continual effort to keep enough contact with the physical world to be able to go on doing his job. He did not need to plan for the next job. He just shifted his hand and there, in the shape of the next fish, was the job. This was all very different from the heightened concentration needed for seining.

Concentration, yes, but it was not even the easily studious concentration of a man reading a book or a poem, trying to work out one complex problem, concentrating all his experience on it as the weight of a solid body is concentrated at its centre of gravity.
Living Silver

This concentration was agile, as though the centre of gravity was shifting disorderly from one extremity to the other, a regimen of odd particulars feeding it weight, now here, now there, never static, never equal to its opposite, never open to systematic examination. For, when it came to seining, Jan was never sure what he should concentrate on. Anything might give at any moment, and his job was to detect the signs before anything snapped; and Jerzy’s job was the same; and Adam’s; and Tadeusz’s. Always there was the unhesitant expectancy (it was fatal to hesitate) that something would go wrong; something always meant everything. Something would go wrong. Yet nothing must stop. The ropes must be shot even though something was going to go wrong, unless, of course, Jan could see what was going to go wrong. Then everything could be stopped, the danger averted. But, even after that particular flaw had been corrected, he must not lose his unhesitant expectancy that something was going to go wrong, something that would cost him a couple of hundred pounds.

Concentration, then, but anxiety too; and concentration upon the anxiety without ever allowing it to disturb the strenuous physical processes that contradicted it with the energy of hope; conscientious anxiety and conscientious insensitivity to the effects of anxiety. Seining, that is, created a moral weariness where trawling had been limited to the physical. It was the sense of responsibility, every one of them being responsible to the others yet none of them able to feel that the others were responsible for them, a three-rayed responsibility that each of them sustained in his single person. That was what did it, and Jan often found himself longing for the authoritative physical ill-being of the trawler. Here it was impossible to fall into an uncomfortable stupor. Here he had to discover a continual alertness, as sharp as that of a man who is carrying on three telephone conversations at the one time; and this very alertness, this increase in consciousness made him more aware of whatever physical pain or peril came his way. There was no snoozing off into a dull agony of freezing fingers and sleepy skin. His mind was full of pins and needles so that not one of his senses
Seining

could relax for a moment. He was stretched out tight to receive whatever stimulus might give sign of a hurt to the vessel or the gear and, with this useful information, he was forced to receive the signals of his own subjective coldness, his bleeding fingers, the wind like a blade in his back.

Thus, in every way, he found seining a more unpleasant experience than trawling. It was more difficult, it hurt more, and it took up more of his life. Yet he preferred it. He vastly preferred it. For the first time since he had come to Britain, he remembered what it was to have a sense of identity. To be somebody, he began to understand, meant no more than to be spontaneously responsible to somebody, not legally responsible, except in the sense of a Divine Law, but equally and ordinarily responsible; as he had been responsible to his comrades during the war, when many of these comrades had died in the most horrible conditions of torture because they had been thus simply responsible to him. He had not demanded it of them. He would never have asked any such sacrifice from any man. Yet, looking back now, he realised that he had expected it. Not overtly, of course. He had never told himself that he would prefer them to die than to give him away, but he had expected it of them in exactly the same way as he had expected it of himself. In their case he had been infallibly right. He did not know what would have happened if he had been the one who was caught. But he did know what he would have expected of himself. And somehow this ferocious sense of responsibility got mixed up with his feelings about his companions aboard the April Morning.

He was probably being very silly. Certainly the middle-aged Scotsmen who sailed in their portly way through the stone wings of Peterhead’s prison-grey breakwater could not have this agonising sense of responsibility. He recalled old drunks like Jim Cowie the skipper of the Weather True, who returned quite regularly to his boat, at low tide and high, in such a state of intoxication that he invariably stepped aboard her. If the Weather True happened to be lying fifteen feet under the quay it made no difference. Old
Cowie just stepped aboard her. One of his crew would pick him up and plaster him into a bunk. Yet, in the morning, he sailed. He always sailed. And he always brought his boat back, usually with as fair a catch as could be seen in a week’s quay watching. It was impossible. But so was the other. The man couldn’t have this sense of responsibility and yet act as he did. Equally, he couldn’t carry a ship through all kinds of seasons, all economic fluctuations, without the same alert concentration as Jan found so difficult to sustain. And the concentration would have been impossible without the anxiety; and the anxiety was caused by the sense of responsibility. It was all impossible. Everything seemed to be wrong simultaneously. Perhaps it was that these born seamen knew their ships so well that they registered weak points almost without knowing what they were doing. Perhaps they said things like: ‘Check the first ten fathoms of that third coil before you shoot her again’, without themselves realising that they had glimpsed a frayed patch on the last ten fathoms as the wet ropes scurried through the pulleys. Nobody could have consciously registered such a glimmer of danger through the bottle-green miasma of a hangover. Yet Cowie always knew. He was notoriously thrifty of gear – afraid that the loss of a rope would cheat him out of an extra few haufs of Glen Grant.

And it was not only the debauchees of Buchan who amazed Jan by their sense of responsibility. The church folk did it as well. He could understand their competence within the family circle of their own craft but repeatedly he was brought up with a start by their audacious generosity when it came to lifeboats or to the rescuing of any complete stranger the sea might throw at them. Men who would not have given the shell of an egg to an Indian pauper were willing, at any moment, to risk their lives, and often to lose them, for irresponsible youngsters who had put out in a rowing boat in spite of an imminent blizzard. And the northern puritans were mean, not just proverbially but in all the circumstantial detail of fact. They contrasted pointedly with their less religious neighbours.
Seining

At first Jan had thought that the divergence between stark asceticism and the most ribald of sensuality was due to a dichotomy between seafaring men and farmers. His stay in the Orkneys had given him that impression, for the men there were of the douce dour type always associated with the Scottish church. They were also men of the land, farmers who occasionally went to sea. But the neighbouring Shetlands were another manner. Its inhabitants were the North Sea Chinamen of legend and reality, the men who were always ready to heap themselves aboard a ship and sail, if need be, to Japan or the Antarctic, to Chile or Australia, heedless of the months or the years of their absence, men who were almost physiologically aquatic, born sailors. And their gay and brutal irresponsibility was a product of the sea as the canny patience of the Orcadian was related to the slower rhythms of the land. And Jan had thought these differences analogous to those he found between trawlermen and farmers. But in Peterhead he was forced to realise how wrong he had been. The co-existence of both types of men within the same family, an inbred family of seafarers, showed him that these two opposite temperaments were both legitimate expressions of the schizophrenic soul of Scotland. They had no direct connection with the sea. As for city folk, Jan never thought of them as having any character or temperament at all.

Yet the sea did put a strain on a man that the land could not. It was a matter of decisions, of continually making new decisions, not one, two, three, four per year, but dozens of decisions in the one day: and each decision was as vital, and sometimes more fatal, than the decision of a farmer about when he would sow his seed corn. Jan remembered well how he had noticed a frayed area in the second rope as it went over the side of the April Morning one day in the third month of their seining. He had made his decision, silently. The ground was light sand, the catches were small, there was little danger of snags. It would hold another drag. But it hadn’t.

Jerzy had been standing by the stern between the ropes as they began to creep out of the tumble of the water. He was weighing
them down with his hands, judging the tension, shouting orders occasionally to Adam who was at the winch: 'Stop the starboard', and Adam would take the starboard drum out of gear. The port rope tightened until it was exactly as taut as the starboard one. It was the one great law of hauling that both sides should be drawn in at the same rate. Otherwise the net would rise lopsidedly and empty its catch back into the freedom of the sea. And Jerzy had a very delicate judgement about these things. Only he could be relied upon to keep the movement on both sides simultaneous. Not even the splices between the coils could be relied upon. Ropes did not all stretch equally, and sometimes a coil had to be shortened in order to excise a flaw. There was no impersonal way of measuring the amount still out on either rope. Only the balanced judgement of a man who understood every twinge in each strand could ensure that the Dan Lenos of both wings would break surface at the same moment. They didn't.

It was just as the end of the second coil broke surface – the frayed part. It snapped. On the other roller the ninth coil held. The loose end of that second coil whipped back, with all the strength of the tension in it, upon the upper third of Jerzy's thigh boots and bruised his thighs.

Jerzy luckily came to no grief. He lost a sea boot and his rheumatism got worse, but ropes were not like trawl wires. Their breakage seldom killed a man. The April Morning though was left with two ropes and a heavy net out, and there was only one rope on the winch and one drum to draw in the broken gear. It was a delicate, time-wasting job. At any moment the other rope might give under its quadrupled strain. For two hours they hauled slowly, the boat at a standstill, the winch revolving like a slow-motion film. And the weather graduated from the adolescent pranks of a stiff breeze to the fully adult hatefulness of a storm. They did not even dare to move head into the wind. The watery half-hours had to be tolerated lest the single strand that held them to their gear should be broken. Even worse was the danger of fouling. As the propellor wrenched clear of the surface they would see the screw
of it touching the single rope. One swift starboard turn and the
gear would be entangled. And there was no telling what would
happen with waves like these frittering over the bulwarks. They
were not the drowning kind. There was no danger to the ship.
If they had been that dangerous then Jerzy would have hacked the
rope through with a hatchet. But they weren’t. They were just
nasty enough to make it slow and dangerous work. And Jan knew
what that meant. He knew that it meant something different to
every skipper. He knew that men had different instruments for
judging danger. He knew that somebody’s idea of safety was usu-
ally the thing that drowned a man. It was not the sea. It was never
the sea. It was always the risk that somebody dared to take against
the challenge of the sea. And the men who took up these chal-
lenges were sensible men. They thought they knew the risks.
They were like him. He, too, he especially, would have gone on
trying to rescue this gear since it was he who had endangered it.
But the choice was not his. It was Jerzy’s. Jerzy was taking his
place. And the risk came off. How often it didn’t come off, that
was a secret between the sea and its drowned. What really wor-
rried Jan was that he had dealt the hand that Jerzy had been forced
to play. And his own life had, in the end, depended upon how
Jerzy had played it rather than upon how he himself had dealt it.

None of these subtleties mattered. There was, indeed, the bare
fact of the mistake, the barer fact that he was alive. That the gear
too was fished out safely and the second coil of the first side re-
spliced; all that was irrelevant. The undertone of risk was what
burdened him. His act was like the negative of a film and his sense
of guilt the enlarger. But no, it was wrong to call it guilt. It was
only the anxiety that breeds responsibility.

But it was this responsibility, too, that revitalised Jan after the
monotony of trawling. Increasingly he understood the difference
between these independent fishermen of the Buchan coast and the
trade union standards of the rest of the fishing industry. Almost
tenderly they cared for their gaily-painted boats, almost reverently
they mended their nets and coated them with preservatives like
Living Silver

cuprisol. Incessantly they tried new gears, new rigs, experimenting, experimenting, trying always to bring more fish out of the depleted stock on their home grounds. But the catches continued to diminish.

For the first three months, the April Morning landed regularly in Peterhead. Jan married about that time and the herring season began. On this first year the four Poles did not attempt to go after herring, but the clutter of boats and birds in their home port made it impossible as a market for white fish. So they shifted their ground and began landing at the more northerly port of Buckie. It was not such a safe harbour, much shallower, and exposed to a north-easter, but the herring season coincided with midsummer and the April Morning drew only four feet of water. Transport costs tended to lower prices but there were fewer seine boats operating. So they were compensated all round.

They heard stories from the herring grounds, failure at Shetland, mediocrity around Fraserborough, and the success off East Anglia. With luck a man might make enough money in one night to keep him for a year. Three hundred crans in a dozen hours, fifteen hundred pounds. And then again he might lose a fleet of nets, fifteen hundred pounds the other way. It was a chancy business. When they had the new ship, next year, they would try their hand. Meantime, they took turn about at sailing on a drifter to accustom themselves to the technique. They employed a student to take the vacant berth on the April Morning. His subject was Zoology and he explained to Jan the ways of the strange weeds that sometimes came up with the net. He told him of the relationship between the various species of fish. Jan became interested.
CHAPTER TWELVE

THE HERRING

BUT though Jan’s academic interest in the structural details and the biology of fish was increasing, he and the rest of the crew of the Stanislaw were more immediately occupied by the search for money. That was why they turned to the herring.

Of all fish it was by far the most important. The total of the world’s herring landings often dwarfed the catches of all other species put together. Hundreds of tons of bright blue backs and fluorescent scales unloaded by swarms of fish baskets along miles of quay and wharf; millions of pounds shifting in the ledgers of the banking houses; war fleets built up to protect the nets; taxes; revolutions; the heads of kings: there was never any wild animal so important to mankind as the herring. Even as Jan planned to go after the British shoals, there was a threat of war between Korea and Japan – another herring war.

Yet it was one of the most primitive of marine fish, more closely related to the salmon than to the highly evolved gadoids. Anatomically it was distinguished, for example by a two-lobed non-functional lung, slung across its back and used as an air-bladder. This brought it nearer the primitive lung fish, found in the muddy swamps of Australia, Africa, and South America, than to the pure marine creatures, like the mackerel and the haddock, that were challenging it for biological supremacy throughout the northern oceans. But it was not a lung fish nor did it resemble the recently notorious coelacanth. It was a true bony fish, a teleost, and, outside its own family, its closest relative among fresh-water fish was
the salmon. Both herring and salmon had the fine rayed fins that were also found among the gadoids but, whereas the pelvic fins of a cod were situated in front of the pectoral ones, those of a herring or a salmon lay far back, near the anus. And the anus, too, was more posterior because these primitive teleosts had guts which ran straight back and did not curve round again towards the gills as they did in the case of the gadoids and, even more spectacularly, of the pleuronectidae. These primitive features of the anatomy, however, were unable to keep the herring population of the world from expanding so quickly that it almost justified Huxley’s stigmatisation of mankind as a community of herring hunters.

At first Jan found it difficult to believe that so primitive an animal could be so successful. Like most people without a biological training, he was inclined to the superstition that a high degree of evolutionary specialisation was rather like getting high marks in an exam and was correspondingly rewarded by some cosmic biological examiner. But, when he really came to think of it, there was no justification for this analogy. Very few of the more successful animals were also highly evolved and some of them were among the most primitive of creatures. The limpet, found among the earliest fossils, remained unchanged on the rocky coast north of Peterhead and the world population of limpets was continually expanding. The locust that threatened man with extinction over large areas of the middle east was one of the most primitive insects. And even then he was not thinking of worms, like the nematodes, that evolution seemed to have by-passed though they still managed
The Herring

to live in their myriads in almost every environment from the abyssal waters of the ocean to the human duodenum. The ability, then, to conquer environments and to live successfully in them had very little connection with the ability to evolve into a more highly organised type of life. Why, he asked himself, was evolution necessary at all? What force drove incessantly from simplicity to complexity? Natural selection could have led equally to an undifferentiated living pulp that squelched haphazardly over both land and water like a protean jellyfish. Yes, yes, he could understand the step by step movement of evolution, the protoplasmic porridge altering into the outline of a Greek god. What was inexplicable was not how these things had happened but that they had happened. The mechanics of evolution Jan had mastered as he had mastered the diesel engine. But he knew why the diesel had been invented. Its mechanics could be fitted into a larger picture of life – into economics, sociology, the hull of a ship – but the huge juggernauting mechanism of evolutionary progress fitted into nothing. It was either unnecessary or its motivation was mystical.

And there was something in the herring that brought out thoughts like these. It too was mysterious, not quite in the same way since it was largely the biological or mechanical success of the group that formed the mystery. Still, even there, he thought he saw something more magnificently mysterious in the sudden abundances and disappearances of the little beast, something akin to fate in the arbitrary rewards and punishments it distributed among the men who hunted it.

Unlike most other fish, the mystery of the herring was not a result of ignorance. There was no lack of facts about the herring, rather a tortuous super-abundance, a contradictory scatter of information and statistics that, in Europe, tapered back across a millennium. Every additional fact seemed to increase the bulk of the mystery, rather than to help towards an explanation. And this too seemed strange until Jan reflected that the other two fish that were equally well known, the salmon and the eel, were almost
Living Silver
equally mysterious. And it struck Jan that if as much were known about the cod or the halibut then they too might disappear into a cloud of precise information. Only our ignorance made them seem simple.

Again, as always, Jan followed the advice of Agassiz and spent hours in looking at the herring in order to learn something of its anatomy and so deduce a little about its way of life. The colours first, and the shape. But he knew all about such elementary matters. It was one of the few fish he remembered from Poland, salt herring, the commonest of foods. The herring was so common. It couldn’t be extraordinary. Everybody knew about herring. A red herring. A Bismark herring. Hampden. The King imposed a further tax, known as ship money, that he might build up a fleet for the protection of East Anglia fishermen from the depredations of the Dutch. As a result, revolt bred in England and the king was beheaded. But his purpose was fulfilled by his successors Oliver Cromwell and Charles II who, between them, founded British naval supremacy.

Or perhaps it was only one of his more arrogant imaginations that led him to believe he understood so much as the shape and colour of the herring. For, indeed, its colours were the opposite of common, a rich bright blue on its black and a glimmering silver belly, a colour scheme very different from the sober blacks and greens of the gadoids yet equally far removed from the garish camouflage of the pleuronectids. It struck Jan that these colours of the herring were the same as the colours of the sea, of the sea as he had often watched it on a bright but stormy day, when the deep blue of the water was being chopped into small white waves. And that must be significant. Whereas the white fish, whether flat or round, were hidden by their colour patterns when they lay on the sea-floor or swam near it, the herring would be best camouflaged when it was moving freely in the upper waters. And the shape, too, was like the shape of a salmon, almost like a mackerel though not quite so streamlined, and these were fish that spent most of their lives on the move – not slouching lazily like the
The Herring

haddock or motionless under sand like the plaice. So the herring was probably a fish of the open and upper waters, a free-swimming fast-moving fish. And these reflections explained to Jan why it had not traditionally been hunted by trawlers. It was not on the bottom. Only drift nets and ring nets, that floated where the herring swam, in the upper waters, only they could catch herring. And they were fished at night when the herring rose to catch its food, the animal plankton of the surface.

At times it was difficult for Jan to dissociate the little fish before his eyes from the big names in the history books. At others it was almost impossible to see any connection between the two. In itself so ordinary, so much on a par with the rest of the world, there was a colossal inconsistency between its everyday appearance and the figure it cut in history. Even its name, the herring, Clupea harengus, had a dishwater taste to the tongue, not the kind of associations that the purple King Knut implied.

Yet the empire of the Viking Knut had been brought into being by the search for this one fish and, had it been maintained, it would have prevented the numerous herring wars that swept Europe through the better part of four centuries. For the herring kept shifting its grounds and the men who depended on it for their livelihood were forced to follow, often losing track of the fish as they did so and being thus forced into a career of piracy. There may have been other reasons for the Viking influx from Norway to France, England and Ireland, but the sea roads of marauders followed so closely the glint of the herring that there could be no doubt that the fish was a chief factor.

So it went through much of European history. All kinds of explanations could be suggested for the rise of the Hanseatic League or the Dutch Republic or the British Commonwealth but among these the intransigence of the herring was omnipresent. Jan began to feel that if Karl Marx could explain all history in terms of the class struggle then a fishery historian could probably explain the class struggle in terms of the drive after the herring. Certainly it would work for marine history since the great naval powers...
Living Silver

were invariably herring powers. But then, too, a great naval power was able to protect her cargo vessels and so to develop into a great commercial power. And all the empires of Western Europe had begun as commercial enterprises. There was a facetious enormity about the whole business. When Jan was sure that he could explain European history in terms of herring fluctuations he began to wonder if the speculations of more influential historians were no better based. If a man were interested in economics in the first place he could state all human fluctuations in terms of economics. If religion were his first love then all wars would be religious ones. But if he happened to be a fisherman then world history degenerated into a by-product of the fishing industry. What then became of the pure historian? He, Jan thought, had better learn to write, for his work would have a purely literary interest if, indeed, it had any. The herring on the table goggled with amusement.

Night-blue and star-white, with the semitransparencies of the jaw bones opening into a frilled purplish gullet, the mouth pointed when shut, the lower jaw as leading edge, opened to become a wide-brimmed jug, a jug that in life was continually being filled with sea water. And the brownish red of the gills through which the blood exchanged carbon dioxide for oxygen as in all other fishes. But the gills too had another purpose quite different from any use served by the gills of gadoids and pleuronectidae. They filtered water, the water that poured in through the curved brim of the mouth, and they combed animals out of it, little animals, the flimsy archetypes of shrimp and the young and larvae of the sand eel. It was on these microscopic creatures that the herring lived. Jan dissected out a gill. It lay arched like a bent wing before him; and the long primary feathers were the breathing filaments; behind them the gill combs that sorted out the floating life of the sea and transferred it to the belly of the herring. Many other animals lived on this animal plankton, the immense whalebone whale, for example, the bat-winged skate and the basking shark, but none were so numerous or so important to man as the
The Herring

herring. Yet it was a small fish. Jan began counting vaguely and came to the conclusion that it would take nearly half a million of the fish in front of him to equal a single female blue whale. And still, the weight of herring caught in a year exceeded twice the total slaughter done by the whaling fleets, blue whales, fin whales and cachalots all included.

Numbers did it. And accessibility. A single herring boat off East Anglia might land three hundred crans of fish, three hundred and fifty thousand individuals, fifty tons deadweight, the equivalent of a smallish blue whale, eight or nine elephants, all in a single night. There was no need for the long journey round the world to the Antarctic, no need for a fleet of catchers and an army of scientists and technicians: nine men and a small boat were enough. Nine men and a single night, one thousand five hundred pounds if prices were good, compared to the one thousand five hundred pounds that a similar weight of whale would fetch at the end of seven months hunting with a fleet of twenty larger ships. Figures like that made Jan understand why whaling had always been the privilege of a few courageous eccentrics while herring fisheries had shaped the character of whole populations.

From Normandy to Bergen, from the Shetlands to Schleswig-Holstein, and after that more vaguely down the western coast of Ireland and up north past the Faroes to the Westmann Islands the melodramatic skyline of Iceland, the imagination of Olaf Skottskonig had flung itself. And under Knut that vision almost triumphed. After the Viking Empire had reached its peak, the herring hordes returned, in the tenth century, to their Norwegian grounds and the armour of Thor moved with them into home waters. The Viking invasions stopped abruptly leaving behind them a few scattered Nordic fishermen and splinters of their native speech imbedded in the tongue of the Saxon.

After the North Sea came the turn of the Baltic, the three herrings on the Lubeck coat of arms, their small fins making them look naked when compared with the huge and frilly sacred cod that still hung in Massachusetts State House. For the herring had
Living Silver

only one dorsal fin where the cod had three, and a single ventral where the cod had two. But both became heraldic animals because both represented the economic basis of a City and a State. Three cities, at least, for the Inner Three of the Hanseatic League were all herring ports, Hamburg, Stradsund and Lubeck. From the thirteenth to the fifteenth century this League was the all-powerful maritime force of Europe, levying dues relentlessly on its members but releasing them from the fear of competition. It was toward the end of this period that the English and the French had fought the Battle of the Herrings, in 1429 was it, or 1430? The English had won. The Duke of Suffolk's men had received their salt herring and been able to go on fighting and winning until the Maid of Arc caught up with them.

Salt herring. It reminded him again of Poland, of Novograd too, that had been a member of the Hanseatic League and the beginning of Slavic nationalism. And the different shapes a herring could take. Marineted herring, bloaters, salt and fresh herring, tinned herring in tomato sauce, in natural oil, chickenfeed, superphosphate, soap, herring fried in oatmeal, pickled hot, barrelled, boxed, cellophane packaged, red, white, shotten and full, soft roes, hard roes, kippers, Rembrandt, Bismark. And always there were more of them. Michael Graham, who was in charge of English fisheries research, had just repeated his admonition that the herring was the most underfished species of the Northern hemisphere, the hemisphere that caught ninety-eight per cent of the world landings of fish.

How did these numbers manage to get there in the first place and how could they survive in spite of the depredations of man, of fish, of the herring whales and the dolphins? A cod had been known to lay six million eggs, a herring never more than about thirty thousand. It would seem to follow that there should be two hundred times as many cod as herring even if the herring were not a more timid and vulnerable titbit. Yet the opposite was the case. If the Pacific variety of herring were included there were very probably two hundred herring for every single cod. Yet
The Herring

members of both species spawned annually from the age of three or four and the herring, although it never grew to be large, could live for up to twenty years. But, since it was attacked from land, sea and air, by men, fish and birds, no herring could count on any such grandfatherly ripening. What was to be wondered at was the fact that so many attained sexual maturity at all. Though man preyed on the herring more intensively than on any other marine creature, he calculated that his endeavours accounted for only a twentieth of the annual slaughter of the species. His avian and cetacean competitors were responsible for more deaths than he.

The first and most important reason for its abundance could have been easily deciphered by a biologist from the very fact that, for a deep-sea fish, the herring laid so few eggs. A female cod needed to spawn by the million because she had no afterthought for the safety of her offspring. She, was, in fact, quite liable to eat them. A mammal, on the other hand, who suckled her children, could support a population by bringing two live young into the world. Between these extremities of maternal neglect there lay a series of infinitesimally small gradations. Any animal could be fitted into one rung of this ladder, but the value of its position varied from environment to environment. It varied in a biological fashion rather than a moral one. A human mother who deposited her new-born offspring on the steps of the town hall at seven-thirty of a June morning would have been regarded, biologically, as impeccable. She had eliminated all possibility that her child would die. The care of a cod took a different form. She laid enough eggs to make certain that some of them survived after birth. Of six million, surely two individuals would escape. And, from the point of view of the biologist, her attitude appeared perfectly tenable. But, whether it was the primitive mother-instinct dragging at her ovaries or a simple physiological laziness that kept her from manufacturing such myriads of eggs, the herring, like her cousin the salmon, chose a compromise, a compromise that sometimes exposed her to almost as certain and immediate a death as that which follows the salmon’s spawning run.
Living Silver

Jan thought it strange. Few human mothers would take such terrible risk as does the salmon. But then, it was not only for the sake of her children that the fish rose in the stream. Sex, sex, sex. Up river to copulate, and the eggs were probably only a very minor consideration. And yet the salmon did cover them, hide them. Even though she was near the end of her tether, pushed at hard by the gush of fresh water, weary of the climb, half dead from starvation, she still found time to protect her young. The herring did not go as far as that. Indeed, there was no reason for Jan to believe that the herring experienced any hardship whatsoever. She was probably unconscious of the danger from predators, feeling safe in the very shoaling concentration that attracted most of them. But maybe she didn’t have such good cause. After all, she had to be content with one third of a mate while the salmon had a monogamous husband. But, even at that, the herring was much more careful a mother than the cod.

She laid her eggs on the ground, clustering them together on stones and rocks so that they might pass for breadcrumb sponges or something equally indigestible. Only the feathery sea-slugs fed on these gritty sub-animals and the population of sea-slugs was too small to endanger so numerous a race as the herring. Provided, then, that the haddock, which could not be deceived by camouflage since it hunted chemically with its barbel rather than visually with its eyes, did not discover these rough nests the eggs stood a fair chance of surviving until they hatched, a much better chance than free-floating gadoid eggs, easy prey as they were to all the billions of microscopic creatures that combed the upper waters daily for food. Then, too, the eggs were bigger, so that when the young herring hatched out of them they were somewhat more advanced than the larvae of a cod. They were not, of course, anything other than highly vulnerable, but they were strong enough to make a few slight escaping movements, enough to save them from many of their smaller potential predators: and, since these small predators were the most numerous, even this slight degree of self-protective ability must have preserved millions of very
young fish annually, protected them, for example, from the thin but rapacious transparency of the arrow worms that took such heavy toll of juvenile gadoids.

But where the mother herring laid her eggs was another question and more difficult to answer. ‘These herrings,’ wrote Camden in the reign of Elizabeth, ‘which in the times of our grandfathers swarmed only about Norway, now in our times by the bounty of Providence swim in great shoals round our coasts every year.’ And ‘round our coasts’ they had swum ever since. The term was probably more accurate than Camden had intended for he was almost certainly unaware of the clockwise rotation of the herring swarms round the eastern and southern coasts of the British Isles. Beginning off Shetland in May and June, July and early August found the herring in Buchan waters, then south past the Forth to reappear on the rich East Anglian grounds for the autumn season: they were near the Isle of Wight by December and had reached Cornwall for the beginning of the New Year. And then the spring season began on the western coast of Scotland: and so back to Lerwick, another May and June. As this pattern had clarified out of the observations of thousands of fishermen, many of them began to fear that the herring would be vastly over-fished. It would have been all very well for the Lerwick men or the East Anglian men to have a good season’s take but if they both caught their thousands of tons, and the Shields men, the Stornoway men, the Plymouth, Ullapool and Peterhead men, were all also fishing out miles of net meshed hard with the herring glint, then it seemed obvious that there would soon be no more fish for anybody. No single population could be expected to support half a dozen industries in this manner. But, when the scientists investigated these herring movements, they dispelled the fears of the fishermen by discovering that the various industries were concerned with different populations, populations that were bionomically as separate from one another as haddock was separate from plaice, populations that did not interbreed, that did not frequent the same grounds, that differed from one another anatomically and behaviouristically. But
then, they were all herring: they all belonged to the same species: and the scientists were therefore forced to work by analogy with human beings and refer to each of these populations as races. They would identify a herring race by counting the number of vertebrae in the backbone, the number of keel scales that lay along the belly in front of the ventral fin, and by discovering from the ear-stones of the fish and from direct observation whether it spawned in spring, autumn, summer or winter. The principle of herring races within the species once established, the morphologists got to work in an orgy of classifications that soon threatened to create as many races as there were individuals until more sober minds took over and the pendulum swung back almost to the point where it threatened the original principle. But never quite. There were herring races: there was no danger of over-fishing: no single population made up the main prey of more than one drift-net industry.

And another possibility began to emerge. The flighty behaviour of the herring, concentrated now off Norway, now off East Anglia, now in the Baltic, had always been thought to be due to the actual movement of individual shoals. The idea of races allowed a different and more common-sense interpretation of the known facts. Quite simply it could be said that, for complex hydrographic reasons that remained unknown, there were historical periods when the Norwegian race of herring was supreme in the North Sea and there were other periods when conditions were more favourable to the East Anglian race. The need to presume that individual herring changed their habitat and spawning grounds every fifty years or so was dispensed with. Each animal went back to its ancestral home but sometimes that home was an uncomfortable or a dangerous patch of water and many individuals died and the race to which they belonged was diminished. Sometimes again, the same race on the same grounds would grow fat and numerous because conditions were ideal for it.

By means of the race theory, the apparent movements of populations could thus be interpreted in terms of water movements; and, since there were many independent signs that hydrographic
The Herring

conditions did in fact alter, the new interpretations served as an indicator of the magnitude of these hydrographic alterations. And very considerable they must have been, so immense that Jan found himself being continually annoyed by journalists who occasionally turned their interest to the fish-trade and discovered in the northward extensions of the great cod grounds a prognosis for a revolution in the climatic conditions of the northern hemisphere. Not that they were wrong: it was simply that they had no idea themselves whether they were right or wrong and there was no way of proving the case one way or another. Certainly it was true that the cod did appear to be moving north into waters that would have been too cold for it twenty years earlier, waters that were warming slowly as the Swiss glaciers melted and the great Arctic ice mass also gave signs of diminishing. But very little was known about the past history of these waters or of the cod population that they were now supporting because these waters had been beyond the range of medieval navies and the sail fishing boats of later years. It was quite possible that there was a short cycle of warm and cold years, a twenty, thirty or fifty year cycle that had been going on unobserved until the general adoption of steam and diesel power had brought these fishing areas into the range of the otter trawl. But the movements of the herring were known, roughly admittedly but still known, and, if hydrographic conditions could be deduced from these movements, then there was a good deal of evidence for a fifty year cycle and the cod populations might well be in full retreat by 1980. The weather would not change, not anyhow in such southern regions as the British Isles: for there had to be a lot of melting in the ice cap before latitude fifty-five felt the effect.

Yet still, there had been the Hanseatic League: there had been herring hosts in the Baltic, numbers such as would be unthinkable under present conditions. And simultaneously, the climate of England had allowed vines to grow in Kent and British wines had been cellared. Since the herring was a cold water fish it could not have flourished around the British coasts at that period. So Camden
had been doubly right. But then the Baltic must have been warmer than in later centuries or there would have been few herring in it and no Hanseatic League. So it seemed that, superimposed upon the short term cycle of forty to fifty years, there might be a larger cycle, to be measured only by centuries, and it was perhaps in response to that larger oceanic rhythm that the ice was now melting and the cold water gadoids edging northwards. Jan saw clearly that there was no way of deciding which of these alternatives was valid: only a sudden rise in the Baltic population of the herring would have assured him that a large scale hydrographic revolution was, in fact, taking place.

Once the race theory had been established, the awkward little facts that contradicted it began to pour in. Individual fish, that had been tagged on one of the Scottish coasts would be recaptured off the opposite one. Sometimes these movements would synchronise with the appearance of different races in the two spots. A single fish, therefore, was behaving as though it belonged to two different races. And then, too, there was the mystery of the Fladen Ground. Lying plumb centre of the northern North Sea, half-way between Scotland and Norway, Fladen consisted of a large oval valley in the sea-bed, deep water surrounded by shallow water, an unchanging core of cold brine in the middle of all the superficial hydrographic changes of a North Sea summer. To this freak district the herring came in autumn, herring of many races, herring in immense numbers. They came and subsided inert on the muddy bottom. Some observers thought that they came to feed, but they did not rise to the upper layers where the plankton lived. Others believed that they came to rest. There were complex attempts to link their behaviour with their need to spawn but no complete explanations emerged.

Little was known of these Fladen fish when the race theory was first propounded. They lay too deep for a gill net to reach them. Only men, particularly Germans, who trawled for herring appreciated the full riches of the Fladen Ground. The race theory was therefore established without reckoning with this example of gre-
The Herring

garious behaviour between the various races and nobody had ever been able to give a good reason for such a sudden demonstration of kinship between groups of animals that usually acted independently of each other. Jan suggested, rather feebly to himself, that perhaps Fladen was the ancestral home of all the North Sea herring or, at least, that the water type of its deeper reaches was similar to that in which the species had first evolved. He was thus able to connect this aberrational behaviour with the return of all Atlantic and Mediterranean eels to their ancestral home in the Sargasso and the return of the salmon to fast-flowing rivers. But both the eel and the salmon returned to spawn while there was no indication of large-scale herring spawning on Fladen. If the herring's arrival were indeed a homecoming it was a singularly unpassionate and torpid one.

From what had been observed of it the Fladen population was however more stable than any of the inshore shoalings. Even as Jan looked through the columns of fishing news in the Aberdeen Press and Journal he could observe the wild annual fluctuations in the landings at ports like Lerwick in the Shetlands. Old-timers remembered how near the beginning of the century, the harbour of Lerwick had been so thick with wooden fishing boats that it was possible to walk on them, in June, over three miles of water and on to the neighbouring island of Bressay. When Jan himself had last visited the port the industry had been so reduced that less than twice the fingers of both hands accounted for the total number of herring boats. Total ruin was a constant preoccupation of the whole island population. They depended on the fishing and, in Shetland, fishing meant herring.

It meant money to them, the wages of gutting girls, the shares of seamen, the prices of diesel oil, the charges for machinery repairs, the bills at the local hotels, expenses for incoming business men: it meant money even for the women who stayed at home knitting jerseys for fishermen and complicated shawls for the holiday makers who exulted in the spree of activity that met them at the docks and did not cease till they, well rested, had said their
farewells. It meant, above all, the money that came from the herring themselves, the German, Polish, Russian, Belgian money that poured out of the bridges of the big ocean-going ‘Klondykers’ as barrels of salt fish poured into their holds.

And Jan, who was still studying the fish on the table in front of him, thought too of the money that he himself hoped to collect from the herring. Soon he would be at sea, his countrymen aboard the m.f.v. Stanislaw and whatever other crew they could pick up to fill the remaining necessary berths. In the end they had to sail short-handed, a bad thing on a drifter, where procedure is almost as stylised as an embassy dinner table, and two of their hands were students, amateurs who could not be relied on. The other two were veteran Scotsmen.
CHAPTER THIRTEEN

RINGING

‘AN’ it’s the same up Stornoway. A kid with a bent hook would get as much fish as the whole damned fleet of us this year.’

‘Aye, it’s no been much guid as a season. No even a reid herrin’ tae guide a man off frae the blighters.’

It was October, and Yarmouth was in an uproar. The herring take had been only slightly above average after three years of halcyon fishing.

‘Well,’ said Jan, ‘All we can hope is that that fool of an engineer will have righted the oil feed by the morning. Tomorrow night is the full of the moon.’

‘And a damned silly thing this drifting is, waiting on her liverish highness, the full moon, be damned. With a couple of little ring boats and a length of wire, I’d outfish the lot of you and be back in time for the pictures.’ The old man who spoke was one of the two Scotsmen of the Stanislaw’s crew. For over a score of years he had been his own master, fishing ring nets in the sheltered parts of Scotland’s west coast. But the fleet had grown and the herring population had decreased. Ring-netting was no longer as lucrative as it had once been. And anyhow, he had seen his daughter married and his two sons through University. There was no need for him to work any longer. He came to sea for the fun of it, drifting in the summer when the weather was kind to his rheumatism. And a good thing it was for the Stanislaw. George was, by far, the best sailor and fisherman who had ever boarded her.

‘Aye,’ charged Ian, a Peterhead drifter skipper whose luck was
well down at the heels, 'you'd outfish us, aa'richt, – after you'd cut awa' hauf the bowls aboot Smith's Knoll.'

'And who the hell would lose himself fifty cran of the finest hardest little matties in the North Sea for the sake of a bit of another man's buff. Come on now, Ian, if you saw them boiling up bright white from the greenbacks, would you spare a thought for a bit of twine and a balloon you could buy for a fiver?'

'To hell with the bowls. Naebody's worried aboot the odd float. But when you chaps scissor them off the back of a heavy net, a heavy net mind you, that micht ha'e twenty cran lying neat and tight under her, then we poor bastards lose the net and the bowl and the catch, and a dozen other nets as well if they're meshed hard as the first one. These chaps, Johnny, they'll mak' mincemeat o' a two mile fleet in a few hoors. And what they can't chew they send to the bottom.'

Tadeusz, who was anxious to smooth this eternal rivalry between the ringers and the drifters, poured in his oily question: 'But George, man, why is it that, if these ring boats are so good, we never see them down here where the herring are thickest?'

'Ah that's another story. They're wee boats to begin with and they can't stand a stiff sea like you get on these East Anglian ridges. And then, you know, it's got to do with the method of fishing.'

'That's what I want to hear about,' said Jan, intercepting Ian's depreciatory remarks. 'I've heard so much of this ring fishing business that I can hardly believe myself that I know nothing about it. Yet I don't know a thing. I've seen some of the boats, up about Oban once when I was on holiday there. And very tidy little craft they looked. You could imagine that they cleaned out the locker and polished the anchor chain every week-end.'

'Aye, they're bonny boats,' replied George, 'and they're not really worse sea boats than some of these frowsy drifters. It's just that their gear's a bit more difficult to handle. You can't just throw a net overboard and pick it up a couple of hours later like you do on a drifter. You need a little skill.'

'Like hell you do,' exploded Ian. 'All they need is a calm so
flat that you’d think it had been to the dry cleaner’s, and a drifter skipper to find the fish for them to steal.’

But George was already lost to reproach, his eyes glazed with those deep reminiscences that sometimes cover an old man from the exigencies of the present. He was wrapped in a warm shawl of memories now, and no cold words could chill him. He was remembering not one thing or another but fifty simultaneous years of straining against the haphazards of the sea and the unexpected weaknesses of faulty gear. For, as Ian knew better than most, ring-netting was as far from being a pleasure jaunt as any other kind of commercial fishing, though it was necessarily carried out in waters somewhat more sheltered than those off the Suffolk coast.

‘Well now, Johnny, since you’re going to call the tune, you may as well pay the piper. What about another pint of that awful stuff they call bitter. Oh, for a pint of good Scotch beer.’

For once Ian was with him and, of course, it was Jan’s round. But when they were all settled over their new-drawn pints the old man began again as mysteriously as though he had never uttered a word in his life before.

‘I suppose you know that you need two boats, quite small boats. You could almost manage with largish lobster boats, and they both need a crew of at least four men. And both boats must have a derrick, a bit like the gilson of a trawler, with a spar that can jut out over the rail. And then, of course, you need a net, quite a complicated net, not just any old sheet of lint, the way you manage on a drifter. And I think you need a stretch of wire, fine wire, fifty fathom, say, with a wee lead weight at the end of it, a two pound weight. They all say I’m old-fashioned and ought to keep up with the times but you know, Teddy, that I can read an echo-sounder with the best of them. And an echo-sounder’s all very well when it comes to drifting. But, for ring-netting, you’ve got to be able to locate the little shoals. Quite literally, you’ve got to be able to put your finger on them. That’s what the wire’s for. You trail it out behind you and, when a herring touches it, it shivers. When you’ve been at it for a long time, like me, you
get so as you can count them. Don’t smile. You can count every ruddy herring that passes between you and the weight. And you can reckon how deep they are swimming by the pulse of the wire against your fingertips. I can’t tell you quite how it is done but I can damn well do it.’

Jan and Tadeusz believed him. Before their herring days they had both used echo-sounders, largely for navigational purposes, partly to avoid the nasty snags, like a sunk wreck or an uncomfortable jut of rock, but partly also when they were searching for the furry hazy bottom-huddling trace of the whiting. But they had never imagined how the echo-sounder would one day become the focus of their lives. To watch it incessantly, to make conjectural interpretations of every tiniest blip on paper, was now the main occupation of their hours at sea. More important than tide or wind, than gannets or herring whales, more important than the compass itself, was the magic box on the wheelhouse wall. A stylus continually arced across the face of it. The paper shifted slowly from right to left. The sea-bed appeared as a thick black line, rising alarmingly when they approached such places as the lightship on Smith’s Knoll. The intermediate water, between the keel of the ship and this black line, was however the thing that they were studying. Usually clear, a virgin strip of greyish paper, it would occasionally be freckled by plume-like traces, and the Stanislaw would stop and her nets would go over the side. Or the whole clear space would be stained black and dark brown as the hordes of pilchards ran under her keel. The Stanislaw would swing round and make off with all the engine-power at her command. Pilchards were not what driftmen wanted: pilchards were the dog-fish of the herring fleet. Their soft bodies clotted the delicate meshes of a drift net. Where herring could be shaken freely into the fish-hold, these marine vermin had to be hand-picked out of their slimy mortuary. And, when they came, they came in such hordes that it might take as long as two days to clean a fleet of nets.

At first sight, though, and to the inexperienced, the pilchard swarms looked on the echo-sounder as though they might be a
particular rich shoal of herring. Tadeusz and Jan had been convinced that they were going to be rich at the end of a half hour's drifting and, in spite of George's warnings, they had shot over a deep black trace. He had been decent enough to help them clean their gear, but they made nothing on that night's haul, since pilchards were definitely unsaleable, except in Cornwall, and they were still disentangling the rotting creatures from their meshes when the other herring boats sailed on the following day. This experience had, at least, convinced them of George's understanding of echo-traces so that, later in the year but over another ground while they were still waiting for the main herring shoals, they had allowed him to warn them against some light brown ladder-like blips which had appeared in sudden profusion. On the following day, they were able to enjoy the sight of half a dozen ships' crews picking shad out of torn nets. Unlike the pilchard, it was the hardness of the shad that made it a nuisance. Useless from the commercial point of view, it got caught in drift nets by the spine of its dorsal fin and, when it could not lash itself free by tearing a bar of netting, it too had to be carefully hand-picked if the nets were to be cleared.

While the Poles had been thinking these thoughts, George had gone imperturbably on, moving his words through such a maze of memories that, at times, it became almost impossible to follow him. Chiefly, he was concerned with the construction of the ring net, but there were, apparently, several thousand variations of it and the old man could hardly recount a single fact without qualifying it in one way or another. 'But, of course, the Norwegian net is quite different, much bigger, for it's meant to fetch up those big Devils that live in the Norwegian Deeps. . . .' And so on. But, by the time he had finished his pint, he had given some idea of what the most common type of Scottish net was like.

It was quite different from anything Jan had ever used. About fifty odd fathoms long, it hung down in the water like a drift net but was more than twice as deep. Five buffs, very similar to the huge floats of a drifter, were attached to the five main panels into
which the ring net was divided, two wings at each extremity, two shoulders, and, in the centre, a single vertical panel called the bag. The corked head-rope and the unbuoyed foot-rope were also similar to the scheme of a drifter’s gear but, below the foot-rope, there was another rope, the spring-rope, that corresponded to nothing in the drifterman’s vocabulary. Then, too, the lint of a drifter’s fleet was all of the same mesh-size whereas the ring boats used nets, or panels of netting, that varied widely in mesh-size.

The wings and shoulders were wide meshed and could never have held a herring that tried to pass through them. But they were not the catching part of the gear. They acted like the ropes of a Danish Seine or the sweeps of a trawl, shepherding the shoal into the area of no escape. In the ring net, that area was the central panel, the bag, just as in the trawl it was the cod-end.

By the time George got back from the bar, both hands frothing with two pints each, he was even more talkative than before. ‘But, of course, they don’t call it a ring net for nothing. You don’t fish with it hanging down limp like you do with a drift net. You shoot it in an arc, after you’ve dropped your winkie to mark the place. And you go with the tide to begin with and then veer round to run across and against it; for, even when you’re ringing, the herring still head the tide. So, when you’ve got it all out, each boat picks up one end and they come towards one another.
Ringing

After a while they meet. Yes, just like that. They bang into one another – and that’s one of the reasons you can’t go ringing in a big sea. You’d need more than a few old car tyres to keep them from smashing the guts out of each other if there was the kind of weather you usually get about these parts in the season. Even with a little swell on a dark night it can be damned uncomfortable.

‘Once they’re snuggling side by side, the ring is complete and, if you’re going to catch any fish, then they must be somewhere within that ring. That’s why I always think that ringing is the best form of fishing to test a man’s brains. In trawling or seining you just trail away at the bottom and hope for the best. In drifting you let the fleet slip out and, again, you hope for the best. The best fisherman is apt to become the most hopeful one. But in ringing, it’s different. There, you find out where the fish are and then you surround them. You’ve even got to creep up on them, careful that they don’t hear the sound of your engines – which is another reason why the echo-sounder’s too blunt an instrument to ring with.’

‘I always used to think of the trawl as a kind of dunce,’ said Jan. ‘You know the sort of thing, with a big pointed cap on his head and without enough sense to make a mistake. These ring nets, I suppose, would be a kind of clever schoolboy in comparison, top of the class, and so on.’

‘Aye, but if we must go back to school,’ Ian was growling, ‘then the drift net would be the master. It doesn’t need to go messing about on the bottom o’ the sea or running about in circles. It’s able to sit it out, and in the worst weather too, sedate like, on the surface, and it looks down at aa’ these other nets that have still to grow up.’

‘Oh well, if you like it that way, I don’t mind.’ George was far too deeply involved in his subject to be bothered with such interruptions. ‘But you see what I mean, Johnny. You’ve got these two boats close athwart one another and probably shuffling the very devil through every timber they’ve got in the pair of them, and the net’s over the side, its five bowls dancing in one of those
circular folk things that we used to be able to do in Scotland. It’s at this stage that the crews change over and the whole blooming lot of them get into the one ship. All except one. Somebody stays on the other boat to regulate the engine and to steer it. His job is to keep dragging the boat with the rest of the crew aboard her away from the nets. If he didn’t then the tide and a bit of wind, perhaps, would ride the lot of them over their own gear and, when they started heaving, it would be as though they were trying to give themselves a lift with their own bootlaces.’

This, again, could be translated into terms of drifting; for, though the two miles of drift net were shot athwart the tide, the boat had to sail down wind as it was shooting. Otherwise the same difficulty would have arisen and the crew would soon have been entangled with their gear. The relative effect of tide, between boats and nets, being nil, the wind would have pushed the boat towards the nets if they had been shot against it. As it was, however, the wet cotton meshes, especially if they were heavy with fish, acted as a kind of sea anchor, straining the boat against the push of even a heavy gale. So long as the air and the water were moving at something like right angles to one another, this arrangement was easily brought about; but, when the tide and wind both driving in similar directions, Jan would often have been glad of an auxiliary boat that would have allowed him to shoot directly athwart the movement of the water without running the Stanislaw on to its gear. But he was interested in this strange business of ring fishing, so he dismissed these conjectures from his mind.

‘You’ve got both ends of the spring-rope aboard that boat with the crew, so you pass them over the winch and let it grumble them up. Now, you’ll remember that the spring-rope is bound to the ground-rope by strops and a couple of rings. Well, all the time it’s coming up to the surface, it’s pulling on those strops. The more spring-rope you’ve got on deck, the less there’ll be under water. That means that the ring made by the foot of the net will be getting smaller and smaller. As the spring-rope comes up,
Ringing

you’re closing the gap underneath the shoal and driving the little fellows up towards you. But that’s not all you’re doing. As well as the foot-rope you’ve got to worry about the bonny circle of corks that’s still lying athwart your boat. So you put a chap forward and another aft, you’ve got two crews aboard, remember, and they haul in your corks for you. So you’re narrowing the ring at the top as well as the bottom, driving the fish up, but driving them in at the same time. This isn’t purse net, you see. It doesn’t hold your money at the bottom, like a woman’s handbag, but at the top of that central panel I told you to call the bag. So you’ve got to get all the rest of the net aboard, and then they will lie in the bag as snug as you would in a hammock. And that, I suppose, is about the size of it. You’re catching your herring in a hammock.

‘While the head-rope comes in at stem and stern, most of the lint’s brought over the side by another couple of chaps who are pulling up the wings: and then, square ’midship, you need another two to raise the leaded foot-rope when it starts to break surface in the wake of the spring-rope. That’s why you need the whole crew on the one boat. They’ve all got a job to do. To begin with, hauling is easy, not even as hard as the first stretch with a trawl. And sometimes it goes on being easy for a hell of a long time, till you think you’re not going to have a blighter in the bag. But then, at last, when you’ve only got one buff out, the bag buff, and it’s floating about twenty yard off, you find that you’re in for a hard haul. But it only lasts for a few minutes till you’ve got the last of that damned foot-rope aboard. And then you see them. There’s nothing like it in drifting, nothing like it in trawling. For the first time in your life you’d really feel that you were fishing if you could see them froth like the head of a jug of beer almost up to the rail of your boat. It’s more than that even, for the best beer looks a bit dead compared to the frenzy of their frothing. You see, it suddenly strikes you all over again, as though you had never known it before, that the little fellows are alive and that they like being alive.’

But the talk of beer had been meant as a hint. Ian was gathering
Living Silver

up the four empty pint jugs and making his way to the bar. George was smiling, very soberly, like the smile of a sleeping man. Jan was remembering the damp black of cod-ends just rescued from the sea, swaying away from the gilson then up against the bagropes. Gigantic pincushions, they seemed to him now: instead of pins, the crushed tails and open-mouthed heads of fishes had been inserted into them by mistake. They were certainly not very lively, though they could flap a bit, these embryonic corpses of fish. And he knew that Tadeusz was recalling the long hours of heaving empty drift nets as the dawn light crept, like a skinny caterpillar, over the stubble on his face. The hoping, and the hoping, that the next stretch of lint might contain a glimmer of what they had seen on the echo-sounder, and the disappointment again as another handful of jellyfish bit caustically and poisonously into his hands and wrists. There certainly must be advantages to this way of fishing which ended in such a gay and brilliant froth.

As he returned with the next round, Ian spoke quietly: ‘An’ this’ll be the time, I expect, when you cut the hauf bowl of a fleet of drift nets that were sinking under their weight of the little fellows? You’re a cursed set of poachers.’

‘Well, Ian, I’m not saying that a drifter’s fleet has never rowed on to me, and I wouldn’t pretend that I liked it, but the only bowls I’ve ever cut have been when my bags were full and their nets were empty. They never lost anything through my hands except for the odd buff, and there’s not a man alive in the herring who wouldn’t rather lose a buff than see another boat lose a fifty cran haul. Come on, man. Be honest with yourself. Would you let a lump of empty lint come between you and two fifty quid? You’re not going to tell me that?’

Tadeusz, however, was anxious to avoid argument, or he was just interested in ringing, so he began to steer the conversation back to course. ‘But what happens then, George, if a drifter doesn’t bob up to spoil things?’

But Ian’s interruption had stirred the old man out of his state of pure remembering and he had to be reminded that the last of
the foot-rope had just reached the deck and the herring were frothing wakefully in a hammock of close meshes.

‘Oh yes, then,’ he continued finally, ‘it’s quite easy really. You just brail them out and out them in the fish hold, sail back to port and go to the pictures.’

‘But how do you brail them out? Last time I heard of them they were still boiling about the rail of the ship. How do you get them out? And who goes to the pictures? Do they leave the fellow on the other boat to muddle his own way back?’

‘Oh no. Before you start bringing the fish aboard the boats come alongside again and the crews change back to the as-you-were position. Then the boat that had been without a crew sails round to pick up the remaining buff and the final stretch of the head-rope. And so you find that the bag of the net is lying between the two boats and you can brail out into both of them.’

‘So that’s why you need calm weather,’ said Jan. ‘In a bit of sea you’d have the boats bumping into each other and the net would be doing a splash-dance in the middle. All the fish that weren’t squashed between the sides would be catapulted out of the bag and back to where they came from?’

‘That’s part of it, I suppose. But it’s not quite as bad as all that. You need a bit of shelter but you needn’t be put out by a little breeze. There are a couple of poles that can be tethered fore and aft of each boat and these are used to prop them apart when the going’s a bit rough. If the sea’s too bad, of course, they’re apt to splinter and then they can be more nuisance than help, careering about and swishing along the deck like those spears you see in films about Africa. One of them prodded me over the side. It just kept edging up to me, anticipating my every move, until, God man, that kind of swell when the sea seems to be going to spew her own guts out, and the damned thing had fairly poked me over the rail. If I hadn’t had the sea to fall into it would have had me stuck like a pig with my rib bones all busted. I’ve never been so glad of a wetting in my life. But that kind of thing happens only once in a dozen years, and it’s usually not the sea’s fault. In this

205
Living Silver

particular case I think the wood of those damned poles was rotten. If I’d been drowned I’d have been the right one to blame for it.’

‘No,’ said Ian and Jan was somewhat surprised, ‘it’s never the sea’s fault and we aa’ know it. We’re just damned careless, the whole blooming lot of us. And they talked about the Cruel Sea.’

‘Aye, careless, Ian, and a wee bit greedy. You’d have cut my buffs if it had been going to do you any good.’ For a split second the two elderly seamen caressed one another with smiles that were not mocking. But then George got on with his story. ‘It’s just like one of these nets they yank the salmon out with. That’s probably the best way to describe a brailer. Only it’s a bit bigger and you’ve got it pulleyed on to the derrick that sticks out from the side of a ring boat. With a few simple tricks of the rope it’s easy to dip it down into the herring froth and heave them over the side, full to the brim of the silver darlings – as I believe we’re supposed to call them, gentlemen. It’s certainly a damned sight easier to brail them out than to shake them.’ Again Jan thought that the old man was probably right. They both knew the hell of shaking a drift net of tangled herring, some on the top and some on the bottom. The frantic deck, not big enough to allow a single rectangle of lint to be fully stretched, would pitch the men who were trying to clear their gear of its catch, trying to turn it this way and that in an effort to save every fish; would pitch them until they felt themselves to be no more than an additional fankle in the net that was, by this time, a sticky mess of crushed herring flesh dripping with cold briny blood. Compared to this, the brailing on a ring netter seemed as easy as ladling sugar into a cup of tea. But Jan knew enough of all fishing practices to imagine that it was a little more difficult than George was suggesting.

‘That’s the thing about ringing, after all. It’s so easy. It’s by far the easiest way of catching fish, easier even than trawling. It’s easy, that is, if you can spot a wee shoal as soon as you come to it, and that means you must have a hand for the wire. Maybe this new asdic thing will work on ringers but I, for one, don’t believe that the echo-sounder is either sensitive enough or inconspicuous
Ringing

enough for you to be able to locate a shoal and surround them before they’ve heard you and dived to the bottom. And ringing’s fast. Outside the pools it’s the fastest way of making money known to man. I mean that, Johnny. You really can sail at six o’clock in the evening and come back a couple of hours later with anything up to six hundred pounds worth of herring stowed in your hold. You can’t be sure of doing it, mind you, but it can be done, for I’ve done it.’

‘Well, why the hell aren’t you doing it now?’

‘Ah, there man, Ian, but I told you. There’s too damned many ring boats about and too few herring in the Minch. I’m sorry, Johnny boy, I should have told you that once upon a time you could make that kind of money and I suppose it will be the same again. In 1945 I did it, and Jack Murdoch did it as late as 1952. He was sailing from Loch Broom. But, just at the moment, it can’t be done. But what does it matter. Let’s have another drink and tomorrow we’ll go out and take the cream off the East Anglian moon.’
AND that was exactly what they did. The oil-feed was repaired in time and they sailed at four in the afternoon. By four p.m. on the following day they were back behind Yarmouth bar, having skimmed the silver cream off a mile of black water. The luck of the drift and the chance of a berth had brought them over three hundred cran. Overnight, they became fifteen hundred pounds richer. Ian, too, had a hand in their success. He told them where the gannets were diving and he first sighted the gambol of the whales, but his bad luck held his own boat down to a miserable forty crans.

The ground to which he guided them lay in twenty fathoms of water, about twenty miles north east by east from the port. They would have preferred to sail earlier and have shot their eighty-five nets before twilight, but the mechanics took their time on the engine and Ian’s boat, the Dovetail, put to sea an hour and a half before the Stanislaw was ready. When they reached the ground, the full moon was already visible, high over the unseen land they had left behind them. The wind was from the south, light and fresh, its occasional gustiness promising the storm that later developed: so it looked as though they were going to be able to shoot north by north west and breast the tide. They thought so, at any rate, until they laid eyes on the ground itself. Ian had not been the only skipper to notice the gannets and the whales. Thirty boats from Yarmouth and Lowestoft were busily paying out their nets or were resting and drifting at the northern end of their shot
Drifting

fleets. Only by moving over to the extreme east could Tadeusz find a berth for his gear, and even then he had to shoot it due north west in order to avoid the possible drift of two other lanes of netting that projected from the main bunch of boats. Thus, when the Stanislaw’s gear was out, Johnny and his shipmates were lying almost three miles due east of the Dovetail’s end bowl and about four and a half miles south east by east of the Dovetail herself. Some of the Stanislaw’s nets ran over a ridge where only ten fathoms of water were echoed under the keel of the boat.

And, apart from the bottom, there was nothing on the sounder, not even a crushed midge to mimic a tiny blip. Had it not been for the deep blackness of the water and George’s undismayed admonitions that ‘you never can tell’ and ‘the solen know best’ Tadeusz and Johnny would never have shot in such an unpromising and congested area. The gannets were certainly there, sitting upright and unfluttering in the rinse of the untidy spray, their great orange cricket bats of beaks nosing under the surface from time to time, as though they were searching for water fleas. Very few were flying. Most of them, indeed, had probably gone clumsy with surfeit. Their bellies might still be full of undigested herring, the ones Ian had seen them catching at slack water in the morning. There was no sign of either whale or porpoise.

By nine in the evening Jan was able to look back along the line of bowls that bobbed away, yellow or white, into the distance, marking a stretch of lint nearly two miles long and seven fathoms deep. The colours of these floats alternated with every eighth of the net. Eighty-five nets, in all, every one patterned with thousands of diamond sauvès, every diamond strained tight by the buoys, the foot-rope, its own weight, and the cross push of the tide, each a possible receptacle and trap for the head of a single herring. Two miles of netting, and every inch might be worth a couple of hundred fish. George could boast of his ringing and the Bear Island trawlers could scoop up their triple bags of cod, but there was no way known to man of catching so many fish in a night as might, even tonight, be enmeshed in a fleet of drift nets.
Living Silver

The trap, too, was magnificently simple and, as Jan surveyed the line of buffs, he thought it elegant: obviously an aristocrat gear of good pedigree. And it was. With the possible exception of the beach seine and the worm at the end of a hook, it was the oldest of fishing methods. Ian’s schoolmaster was not a satisfactory person for it. Twelve hundred years of unqualified superiority give more than a schoolmaster’s tone to anything, even a fishing net: and, anyhow, drift nets were too lazy to make good schoolmasters. They just sat about on the surface, as they had sat for over a millennium, and waited for the living water to deposit its riches in their suave cells. They were no more active than the honeycomb of a bee’s hive. And they were filled as easily, by an Act of God, a process of nature too mysterious, in this case, for men to be able to predict it, too secret, even, for them to be able to explain it after it had happened. The drift net was really one of those effete Italian noblemen who are always on the surface of things, relaxed and polished, and to whom the depths come up and make their offerings in inexplicable homage.

The times, though, were against aristocrats. Jan, being a Pole, was particularly well aware of the historical tendencies that were destroying the privileges of lineage. And the Russian revolution had had its contemporary parallels in the herring industry. About 1913, it had been, that the first German trawler put down a herring net; and the numbers of herring trawlers had been increasing alarmingly ever since, the quantity of their catches improving; until, by the time the Stanislaw had taken to the herring hunt, it seemed likely that the days of the drift net were almost over.

To begin with the herring trawls had been similar to the ordinary otter ones, but the revelation, in 1919, of the potentialities of the Fladen Ground began a much more intensive concentration on the herring as a trawlable fish among continental skippers. On Fladen, during the months of August and September the North Sea herring congregated in immense numbers: and these shoals were not vulnerable to the drifters since they spent their time on the bottom. But, just because the surface gill nets could not get
at them, they were easy prey for the trawl. A fishery soon developed and, along with it, the gear of the herring trawlers underwent a revolution.

The otter board of an ordinary trawl sheared away laterally from its opposite number on the other wing and thus held the head-rope taut. But herring were fast-moving fish, able to rise quickly, and it was therefore necessary to find a way of keeping the head-rope riding high above the ground, of shearing it vertically. This was accomplished by the use of wooden boards, or kites, that, at first, were attached directly to the head-rope and bore it upwards by shearing at an angle of forty-five degrees, away from the bottom. It was a vertical extension of the otter board principle and, as the otters dispensed with heavy poles or beams of ash, so the kites cut down on the demand for cumbersome metal floats. Legs and sweeps had been added to the ordinary whitefish trawl: they had extended it still further in the horizontal direction and they had had the additional effect of frightening fish into the body of the net. The European herring trawl developed in the same way. It, too, adopted legs and sweeps, but it also added an analogous vertical component, the false head-line. Instead of being attached directly to the top of the net, the kite was now fastened to two fourteen feet wires that, in turn, stretched back to the head-line in the same way as the legs rode between the otters and the wings. Thus the gear lasted — a kite, a false head-line, the head-rope — until a German skipper, Oskar Lang, observing that the false head-line too scared fish, but scared them down towards the ground along which the net was trailing, intensified this effect by adding another kite and another false head-line to his gear. This addition was the vertical complement of the sweeps that connected the butterflies at the end of the legs to the otters. Both kites thus rode above the head-line and in front of it, the uppermost one sailing almost immediately between the leading edges of the wings and about two and a half fathoms higher than the centre of the headline. Apart from the false head-lines, that held them to each other and to the head-rope, the kites were fastened to the rest of the gear by wire
Living Silver

guys. From each side of the leading kite a guy led to one of the butterflies while the lower kite was similarly attached to the legs that ran ahead on either side of it. This final refinement of the herring trawl more than justified its complexity by the results it achieved, catching, on the average, more than twenty times as many herring as ordinary VD gear when fishing over the same ground.

It was still never as effective as a drifter could be, but it had the advantage of being more consistently efficient. It did not have to wait on the whimsies of the herring. It could go down and catch them, four thousand baskets of herring, herring of a sort. For quality was not its strong point. Apart from the biological fact that, except on Fladen, the herring were not usually in their best condition when they were lying on the bottom in trawlable concentrations, the trawl itself was apt to damage its delicate prey and render it useless for certain forms of preservation, like kippering. As the fish were dragged along a rugged bottom, and the bottom was often rugged since a good deal of trawling was done over spawning grounds, they lost their scales and their fragile skin was exposed to every buffet of the ground and the coarse abrasion of the sisal threads of the cod-end. The flesh, thus exposed, was easily desiccated by preservatives, like salt, though it rotted more quickly if it was not preserved. The Germans, however, did not seem to worry about this damage though it shocked the drifter-men of Moray and East Anglia.

Jan, who hated Germans, was very worried about the state of the herring industry. The British fleet was indubitably backsliding and only Germany and one other country supported anything that could take its place. And that country was the one that he hated even more than Germany. Yet he was forced to admit that the Russians showed more respect for the herring than the Germans. Not only did trawling destroy the quality of thousands of individual herring but it promised to extinguish the fishery altogether. The continual exploitation of the spawning grounds would go a long way towards doing this. But that was far from being the end
of the evils perpetrated by this new version of the marine dunce. It also caught the young herring that had never had a chance to spawn and caught them in such enormous numbers that the men he worked with were almost unanimous in believing the entire North Sea population of potential spawners was being decimated. The Russians, at least, were more careful in their methods. They, too, drifted.

Yet the Russian herring fleet was expanding almost as quickly as the German one had done since the end of the war: and some of the Russian ships were very large, much larger than the biggest of the German trawlers. But these huge Russian ships were not for catching herring. They were mother ships, floating factories, perhaps, each attached to a family of small drifters. The small boats did the catching and brought their takes to the mother vessel. What happened aboard her remained highly uncertain but they were so big that Jan would not have been surprised if each of them had contained a couple of kippering kilns. More probably, however, the bulk of the catches were barrelled along with a generous supply of Siberian salt. By using these large ships for the storage of a perishable cargo the Russians were able to escape from the restrictions of their home grounds and wander at large in the North Sea, the Atlantic, and, for all Jan knew, in the Pacific. Off Shetland one day, the mother would round up her children if they were failing to justify her faith in them, and the whole family would appear later in the same week on the famous Iceland ground where the largest and the best herring in the world were sometimes to be found. Compared to this global vagabondage, the British fishermen, moving with the calendar round their own coasts, were unenterprising stay-at-homes.

Yet, even in Britain, there was a growing tendency to break with the depleted waters of the home grounds. On a much smaller scale, it was still a move in the right direction; for it was obvious that, since all kinds and numbers of foreign vessels were going to compete with British boats on the very edge of the three mile limit, the British fishermen would have to invade European waters
Living Silver

if they wanted to retain their familiar proportions of the total catch. Instead of equipping an expedition elaborate enough to go whaling in the Antarctic, a mother ship accompanied by about twenty catchers, the seamen of Lowestoft had enlarged upon the simple Scottish idea of a dual purpose vessel and had beaten the Scotsmen at their own game.

The Stanislaw herself was one of these boats equipped equally for drifting and seine-netting. But the English were only just beginning to take to the idea of seine-netting and many of them were busy learning the somewhat primitive Danish anchor techniques which were uneconomic everywhere except in Denmark's home waters. So the English dual purpose vessels were not seine-netters. Their two professions were drifting, as in Scotland, and trawling.

This gave them one great advantage over the Scottish craft—size. And size on a fishing boat meant space. And this space was used as refrigerated storage space. Neither when drifting nor when seining could the little boats of Aberdeen and the Moray coast afford to carry ice. They, therefore, had to make short trips to the grounds and back. Only by curtailing their time at sea could they ensure fresh catches. But the smallest of the trawlers that worked from Lowestoft on the east and Fleetwood on the west, stayed at sea for periods of about ten days or two weeks. Ice was necessary to them, and space to carry ice; and a fish-hold large enough to contain a cargo worth icing. When they refitted for drifting this space was in no way diminished and, therefore, they were able to preserve herring as they had preserved white fish. They could undertake journeys across the North Sea, shoot their nets over the rich Norwegian Deeps and return to Britain with a few hundred aluminium boxes filled with fresh herring. Jan well remembered the consternation in Aberdeen fish-market when the first of these dual purpose vessels landed. The Shetland season had been a wash-out. The north-east-coast one, which had just begun, promised to be little better. The Scots driftermen were in no mood to take kindly to a grinning Englishman who had just deposited thirty tons of good hard kippering herrings on a market that, in spite of all
their efforts, was starved of quality fish and prepared to buy at any price. Four years had accustomed them to seeing this cycle repeated but it had not endeared it to them. They, therefore, exulted in the East Anglian season when they could invade the Englishman’s home and where, as often as not, they succeeded in outfishing the English boats – even the dual purpose ones that had filched them of their ‘rights’ on the concrete of Aberdeen.

Jan had grown more Scottish than any MacKay or Lindsay; he looked back along the line of bowls which glistened in the white night light with a competitive longing that God might deliver them into his hands. The shooting had been difficult as it always was aboard the Stanislaw, for she had worked short-handed since the beginning of the season. He himself had done the job of two men, unwinding the back-rope and bending on the strops that attached it to the deepyne of the lint. The two students, who were working aft of him, had again got into a fankle, as they paid out the net-rope and the back of the net. One of them had almost been knocked over the low rail when he suddenly unbent as George was passing a heavy balloon-shaped bowl across his bowed head. The molgogger, through which Jan led the back rope, had seized up, but Adam had freed it so quickly that they had not needed to stop. It was really remarkable, considering everybody’s inexperience, how well they managed to work.

So now they lay, the eighty-five of them, a long narrow spider’s web just below the surface. Each net, with its thousands of fine cotton meshes, surrounded by about nine inches of strengthened hoddy, rode between the corked net-rope to which the floats were attached and the heavier back-rope that he himself had shot from near the fo’c’sle down, the net-line sinking from the buoy strops under the weight of back rope and lint; but where the bottom rose in a ridge they had been forced to shorten these strops in order to keep their gear off the sea-bed. They were now hoping that the blustery breeze would not begin to carve up the sea. These nets were near the centre of their fleet and, in the event of a storm, they were riding so high that they would have to take a battering.
Living Silver

There would be no time to raise them before the damage was done. About the remainder of the gear they were not worried. It was deep enough to escape the heaviest waves that could be expected. But, as the wind showed signs of increasing, Jan grew more worried about these central nets. He began to realise that George was right and that it had been a 'damned silly caper'. Not only were the four shallow nets in danger but they were a weak link in the fleet. Instead of being bound eye to eye along the whole side, or head, of each net they were fastened to the rest of the fleet by ropes long enough to allow for the difference in depth. If a storm did come up and these ropes gave, the fleet of gear would be broken in two and they might easily lose half of it.

Very occasionally now, the stylus of the echo-sounder would flick down a small brown mark, hardly big enough for a single herring far less a shoal of them. To the west they could see the glint of red and green lights and all around them were the flashes of lighted buoys. Their nets were not the web. They were on the edge of a gigantic spider’s web and their own two miles of waiting lint was no more than a single filament in it. And still the buoys rolled gracefully in the growing uneasiness of the water. Again, like all aristocrats, the drift net was not particularly concerned about the prospect of its own extinction. If a storm was coming it would either ride it with careless ease or it would be altogether shattered.

But Jan was a peasant. He was worried. He began talking to
Drifting

Tadeusz about it. George helped him by mentioning that if they didn’t get to hell out of it the nets over the starboard would bear straight down into them. Tadeusz naturally wanted to wait for slack water. That was when the big swim would come, if it was going to come at all. But the wheelhouse bucked. It was as though the sea had hiccups. The impoliteness of it outraged Tad’s sense of the proprieties. He couldn’t trust anything that acted so unceremoniously. It might do anything next. They began to haul.

At the best, in the calmest of water, the hauling of drift nets was a wearisome business. Now, as the sea grew frantic and the boat went mad under their feet, it was hell. No trawler ever moved in such a splendid series of semi-somersaults as the Stanislaw performed on that night. Jan was almost praying that they would catch no herring for he didn’t know how they were going to stow them among the clatter of colliding waterfalls. To open the fish hatch would have been like inviting the sea to come aboard and smother them. Net after net was hauled in. Jan, again near the stem but on the port side now, could just make out the clatter of the capstan as it hauled in the back rope. He unbent its seizings and arranged them in order on an iron bar. But it had become one of those entirely ridiculous things, like offering a nice juicy bone to a rabid dog or saying ‘I’m very pleased to meet you’ to a hangman who has just been introduced for the first and last time. One of the students was downstairs vomiting blood and the other was slithering on drunken sea-boots dangerously near to the starboard rail.

They reached the ridge, though, and, as the weather broke about them in a white pediment flying with gargoyles and black green buttresses, Tadeusz himself knelt with his neck in the water to lift up the first of the four buoys they had expected to lose. The rest of the net was shredded as fine as new-picked cotton. It had been torn lose and ground into the sand and shale of the bottom. Then the real heave began.

The first three nets, the nets on the ridge, were the worst. After that, with the sharp increase in depth, the sea had more
Living Silver

room to move about in. But the herring were just as thick. Up to that point there had been the faintest of glimmers, half a basket to the net, but at first scudding the second net on the ridge gave them forty baskets, seven cran, near ten thousand fish. And it went on like that, hour after hour, straining the hard meshed nets over the side in the presence of the most energetic lazy deckie that Jan had ever met. The movement of the sea did not help, however, as much as it would have done with a trawl. There was the dead weight of ten thousand fish at a time to be manhandled aboard, whereas, on a trawler, the fish themselves, wrapped up in the cod-end, were lifted by the gilson and the winch. Luckily these herring were meshed under the lint. They must have been moving south in a solid rush. And they were all well up in the top half of the nets. So when the boat was turned into the sea it was just possible to shake them into the hold, losing a few down the scuppers, but without too great a risk of battening down a couple of tons of brine along with them.

It was a clean catch. Herring, herring and only herring. The right size too, none of them struggling almost to their bellies in the meshes. Each head had sunk nicely through a diamond. Then the arch of its back had impeded further progress. It had tried to retreat. But the operculum of the gills, that had been so smooth and streamlined when the animal was going forward, was seized up by a strand of cotton as a button is sometimes seized by a loose thread in a shirt buttonhole. The herring dragged back, but the harder it pulled the deeper the cotton twine sank into its gill slits. It tried to push forwards again but the arch of its back had grown no smaller. It retreated and felt the thin thread grinding into its gills. It was caught. And so they had all been caught.

The secret of the success of the drift net undoubtedly lay in this method of capture. Biologically, it was perfect because it was impossible to catch the very young fish or even the adolescents. They were small enough to be able to swim or wriggle through the diamond suaves. There was no chance of them being stunned as they might be by the impact of some part of a fast-moving trawl:
the drift net did not move except with the tide. There was no opportunity for a press to develop, thousands of little fish huddling together in the cod-end of either seine net or trawl, all trying desperately to escape and crushing one another to death against the inflexible stretched meshes: for the drift net was flexible and each mesh could catch one and only one herring. It gave them all individual treatment, taking account of their age and their condition, instead of doling out democratic mass murder.

What always amazed Jan was how easy they were to shake out of the nets. They came up living, a fluorescent miasma into the yellow haze of the deck light, and the darkness glistened purple on their shivering bodies. As though they were going to be tossed in a blanket they would be held up over the fish hatch, their little pointed heads facing the little pointed stars, their white bellies shining toward the prow; a couple of flicks up and the feel of air would make them close their operculi in order to protect the moist atmosphere round their gill filaments. But it had been by the open flanges of its operculum that each had been enmeshed and once it was shut tight it did not catch in the twine and they would flop helplessly into the hold.

That night’s nets were heavy, though, and even a couple of flicks was hard work after the strain of a haul. A lot of fish were still meshed in the nets as they rolled them aside. But the swell was lengthening and the white tops disappearing. Dawn slanted from the curve of the horizon. Out there the waves looked flat. By nine in the morning it was quiet enough for them to think of breakfast. Twenty nets were still out but their bowls were riding high. They were not in danger of being torn to the bottom by the weight of their catch. Tadeusz had calculated two hundred and fifty cran on the thirty-eight nets they had hauled since they left the ridge behind them. Another three hours’ work and they could turn for market. They had been hauling for eight hours. In each of Jan’s main veins and arteries a little furry animal was breathing its warm weariness into his bloodstream.

‘And will it have been worth it?’ asked Tadeusz.
'Yes,' said George wearily. 'The market will be a good one.' Everybody was too tired to ask him why he thought so, but he was right. A few boats that had gone south returned with fairish catches, up to a hundred cran, but the bulk of the East Anglian fleet had been fishing within ten miles of the Stanislaw and, of them, Ian landed the best shot – forty crans, not much more than a tenth of what Jan and Tadeusz took. When they thought it over it was simple, bafflingly simple. The herring swim had been on the far side, the east side of the ten fathom ridge. Perhaps there had been herring on the other side as well but, if so, they had kept to the bottom. There was no way of telling. The gannets had been there all right, and the whales too. One of the Peterhead drifters had lost a couple of nets when a whale charged playfully into them. That, too, was strange. With the nets so thick, the whale, or whales should have torn dozens of them to ribbons. For the most part there had been nothing in the nets, not even the jellyfish that had given Adam blood poisoning in the summer fishing.

With the landings so low and the quality of their take so high, the Poles were able to sell most of their herring to the kippering companies and the dealers in fresh fish. Only thirty crans went for fish meal. But, although he cleared two hundred pounds on the night's work, it was not the money that Jan remembered with most gratitude when he looked back on East Anglia in later years. It was the student, the one who had been vomiting blood.

Naturally enough, everybody had been annoyed at the time. The work on a drifter was highly organised and demanded a crew of nine. If even one person was missing it meant interminable delays. Now the Stanislaw had been working short-handed, with a crew of eight. Jan and Tadeusz between them had taken most of the extra work, especially Jan who was doubling up as cook and mate, a hand-breaking, brain-tearing job. When the student deckie had been forced to desert his post, Tadeusz had tried to combine his duties as skipper with those of a deckie, bouncing about from wheelhouse to deck, as split a personality as a clown with two masks. The student had realised the trouble he was
causing but the poor fellow was really vomiting blood and literally couldn't do anything about it. Not, that is, until about half past five in the morning when the swell had lengthened a bit. Then, to everybody's surprise, though not a word was said, he returned to the deck and worked like a man possessed. Jan, especially, admired him for it. He had seen many men shrink all duties on a three week trawler trip after much slighter, though severe, attacks of sea-sickness. His admiration was the beginning of a friendship and his friendship opened a new career. For the first time he found out how easy it was to gain admission to a Scottish University. With that money and what he had saved, there was enough to keep him, though somewhat meagrely, during the four years he intended to spend at Glasgow University. But, before the term began there in October, he wanted one last fling at the sea. He wanted to try the method that, of all fishing methods, gained for its practitioners the highest social prestige.
CHAPTER FIFTEEN

THE GREAT LINES

JOHN RADCLIFFE was not a trustful man, but he trusted Jan. He trusted him from the beginning or, at any rate, after the first five minutes of autobiographical cross-questioning were over. There were perhaps two dozen men in the world whom Radcliffe trusted. They had all sailed on the Honor and only they had sailed on the Honor. And they had all been trustworthy. That was not quite true. There had been one exception. He had sailed with Skipper Radcliffe for a year. After that he had bought a boat and set up in business as a linerman. Radcliffe had been annoyed to find him poaching grounds between Iceland and Greenland that had been the preserve of the Radcliffe family for three generations. But not for long. The traitor, for so Radcliffe regarded him, had learned a lot: he had been a remarkably intelligent man and a good navigator. He had not, however, learned enough. Eighteen months after he left the Honor a freak of the ice had surrounded him. He and his crew were all drowned. Never, since then, had John Radcliffe made a mistake. It would have been inhuman, as well as uneconomic, for him to blunder into trusting the undeserving.

But, though he did not trust readily, Radcliffe trusted absolutely. And he made his decisions quickly. It was his job to make decisions quickly. ‘If you’re going to use Sandy’s gear,’ he said, ‘I suppose it will be all right, if Sandy doesn’t object.’ Sandy was in no position to object. He was lying in Forresterhill Hospital with half of his right humerus as bare as a baby’s bottom. He
would be very grateful of the two-thirds of the share that Jan intended to earn for him.

After so many years of the North Sea, Jan found himself once more unaccustomed to the longer motion of the open Atlantic. At times he felt almost sea-sick, though never quite that, a slow dizziness rather, as though one of those tall wheels in the circus were revolving within his stomach or his head. He couldn’t be certain where. His ideas about his own anatomy had become somewhat confused.

‘Johnny, I want a word with you.’ Radcliffe was shouting from the bridge. Once inside the skipper’s cabin, which did duty as a chart room, he continued: ‘If you found out all that’s going on here, exactly how we’re heading and how fast, what depth of water we’re fishing and what kind of currents run there, and you did it all on your own, mind you, with me doing my best to lose you, you’d feel pretty clever, I suppose?’

‘I might, if I thought you were really trying to lose me.’

‘Well, Johnny, I think you’d do it and that you would be very clever. The trouble is that you’d feel clever and, if you felt clever, you might become anxious to show old Radcliffe up for what he’s worth: and to do that you’d have to talk to people. And I don’t want you to talk to people. So, since I think you’re an honest man, I’m not going to wait for you to prove to yourself that you’re cleverer than I am – which you probably are. I prefer to trust your word rather than mistrust your intelligence. Do you understand?’

The shrewd eyes were, for a fraction of a second, rather solemn and very beautiful. Johnny understood, and Radcliffe began to explain his plans. Changing, with an almost slovenly familiarity, from one chart to another he outlined his projected trip, thirty-two hundred miles in all. Their first stop was to be a little bank about two hundred and thirty miles south west of the Westmann Islands. On it they would find skate, the big grey skate, but not more than a hundred kit of them. They shouldn’t take more than two days to clean up that bank. Then they would go on to the
Living Silver

Denmark Straits. It was just the right time of the year to fish there. The ice was as northerly as it would ever be and they might even be able to press into the Arctic Circle, though there would be a lot of bergs about and a danger of being surrounded by them. ‘Do you understand Icelandic, by the way?’ Jan confessed that he didn’t. ‘Danish?’ ‘A little.’ ‘Good. We’ve got to keep receiving every weather forecast we can get, and most of them are either in Danish or Icelandic. When I’m off the bridge for a few minutes I like to leave somebody up there who can understand one language or the other.

‘The trouble is that these damned bergs are first-rate wind-gatherers, and whole convoys of them are apt to get behind you while the main masses are bearing down ahead. You get the ship going easily forward on what looks like a nice quiet patch of the sea. And so it is. But a couple of hours later its just a little island of water in the middle of an ocean of crunching bergs. The noise of these things is hellishly frightening for the first few trips. I don’t suppose you’ve come across them. The Aberdeen trawlers steer well clear though the Hull boats do occasionally get involved. Anyhow, I’m just warning you in case we do run into the stuff. Don’t be alarmed. It sounds much more dangerous than it is. They growl worse than they bite – provided we find out just where they’re going to be, that is. I know the currents in that part, so all we need to keep tags on is the wind. From that I can usually calculate how the ice will move – usually but not always. Still, the Honor’s been sailing up there for ten years and she’s never been scratched by a berg or a groaner. They’ve never even chased us away from our gear, and that’s the most likely accident. So there’s no need to worry. Just keep your ears open for any startling changes in wind force or direction.’

As it happened, they saw a little ice. Ten miles to the east of them when they were working in the Denmark Straits they watched the bergs moving south. But the wind kept up from the west at force 6, a little under a gale, dutifully nudging the big green masses away from the Greenland side. Radcliffe was con-
The Great Lines

tinually in the wheelhouse, assessing possible variations in the weather from forecasts picked up in four languages, English, German, Danish, Icelandic. He also spoke fluently, Jan learned later, in a tongue that was peculiar to Eskimoes though few, even among the Eskimoes, remembered it.

The conversation in the wheelhouse continued for two hours. Every detail of the planning of the trip was carefully examined. Jan was even told, in advance, where they would have to use weights on the lines; and the reasons were explained to him. 'There's strong southerly current round these two banks. That's probably one of the reasons that the 'huts love them. An unweighted line would sink so slowly that the current might have carried it for damned near a quarter of a mile before it hit the bottom. And the bottom shelves steeply. Instead of ending up where I want it, between two hundred and two fifty fathoms under us, it might touch the ground at anything up to one twenty on the north side and down to three hundred on the south. So we'll need weights to sink it quickly, before the current gets a chance to carry it very far.'

Jan climbed down the starboard companionway as the Honor heaved up over his head, bearing images of lines curling away in the darkness of a mid-water current, their baited hooks flopping like white flags of surrender. Images, too, of sea lanes, not so much as a quarter of a mile wide, lanes populated by halibut, huge grinning greedy halibut, lanes that ran round the side of a submarine hill, lanes as regular as a cinder track. Only in these lanes did the halibut live. They never climbed to the top of the hill. They just meandered, though somewhat impolitely since they were hungry, nodding perhaps to their brothers and sisters who were also circumambulating the tiny traffic lane. And then, along this lane, a fine thread of Italian hemp, swirling with white flags and ready food, floated with lazy precision. And the hungry grey halibut bit at the food and were caught. They were haltered to the hemp. One and a half fathoms of freedom was allotted them. They flung themselves round, in energetic but helpless circles. One
and a half fathoms was all the freedom they could extort from the pull of the great line. The evil-looking hook was biting deep into the membranes of their oesophagus. Every tug hurt, but they went on pulling in their dreary circles, shifting the ground-line for a yard, perhaps, just shifting it but never escaping from the pull of the snood or the pain of the hook. Again Jan felt dizzy. His anatomy, once more, became hopelessly congested. He could hardly believe that his own hands really belonged to him.

For the rest of the trip, however, he kept a very clear head — and he needed it. Radcliffe had allowed him to sail because he thought Jan intelligent enough to learn quickly. But he still had to learn. Already, ashore, he had practised with a line, learning to arrange 420 fathoms of strong hemp in a basket. A rim of cork ran round the top of this basket and into it the hooks had to be fitted. And they had to be fitted in the correct order. And there were 112 of them in every basket of line. It was the most elementary of a linerman’s techniques but even it required considerable dexterity.

Sandy had been a good friend to Jan as well as a cousin of his wife and it had not been the least of his acts of friendship to allow Jan to take his twenty lines aboard the Honor. Their total value amounted to over six hundred pounds and, if Jan were to be careless, several of them might easily be lost. Sandy’s trust was not, of course, without basis. He knew that Jan was a ready man at most of a fisherman’s skills and that he could probably adapt himself to this new one as easily as he had to the others, but he would never have trusted the Pole with his lines if he had been sailing on any boat other than the Honor. It was not to Jan alone that he entrusted them but to Radcliffe, the mate and the other three sharemen with whom he had spent so many hard and jovial hours. And they, too, had accepted Jan as much for the sake of their injured friend as because they hoped or thought Jan would make a linerman.

At first Jan believed that their interest in his progress was a
simple sign of friendship and concern about his welfare. They had no sooner reached the first of the deep-water banks they intended to fish, however, than he was forced to admit that a fair share of self-interest entered into their concern. Each man of them owned more than five hundred pounds worth of gear, of hemp lines and Kirby hooks, and each stood to lose a fair proportion of this capital if Jan made a fool of himself. That was why they coached him so lovingly in the arranging of hooks on a rim of cork, in the techniques of baiting and casting a hook and in the mechanical intricacies of the line hauler that stood on the port rail alongside a slightly raised wooden staging.

In all, the Honor was fishing a hundred lines, nearly fifty miles of rope, and these were usually shot in fleets of twenty-four at a time. Of these twenty-four Jan would shoot six, and these six belonged to Sandy. Every one of the six share holders shot his own lines, even Radcliffe, though it was unusual for a skipper to work on deck. And every man's lines lay between the lines of his mates tied inextricably to them. Five lines, then his own. Five more lines, and his own. So it went on. If, then, a rope had to be cut and part of a fleet was lost, the chances were that each man would lose the same amount of gear. It didn't matter who was responsible for the mistake that caused the loss. The whole crew shared it. A greenhorn, like Jan, was studied as closely by the men he might ruin as a patch of fungus would have been studied by a gardener, and with almost the same degree of distaste. Only Jan's absurd faith in the good intentions of all mankind could have mistaken their anxiety for affection.

Even when he did understand their solicitude, Jan was not discomfited. This was his last trip and it was also like a homecoming. Once more he was in the Atlantic and the broad swell of it had soon lulled him back to the easy days when he had been on a trawler and had not been tied down by the responsibility of his own boat or another man's lines. Then, too, once he had shown his competence, his mates on the Honor proved as good companions as ever his compatriots on the Stanislaw had been. They had, in-
Living Silver

deed, more of the discipline that is peculiar to the best of seamen, a quiet and singularly un-self-assertive assurance.

But, more than the Atlantic, it was like going home to his native fields in Poland and living the life of a peasant. The thought had first struck him when they reached the little bank in mid-Atlantic where the great skate lived. He stood at the stern looking at the anchored and flashing buoy that marked the beginning of the first fleet of lines and watched the hemp disappearing below the surface. They used salted herring to bait that first set of lines, herring they had carried from Aberdeen. Afterwards, once they began catching their own fish, the cook would cut a few ling into dollops and they would use them for bait. On that first occasion though, there was the silver glint of the herring to glimmer from deep in the green water and, as Jan had watched them go down, he had found himself imagining them to be seeds and that he was sowing them in a thin straight drill. And there had been the quick movement of hands as the three sharemen stood round the basket of line, lifting the hooks in careful nimble rotation, baiting them with hurried but precise fingerwork and throwing them into the white wake of the ship. And the green sinking and the quick baiting, and the repetition of it all, each man taking his turn, and each with only five seconds in which to prepare his next hook for casting. It had been like sowing potatoes, the almost unconscious accuracy, everyone moving in time to the others and in tune with the motion of the ship. How quickly that first line had disappeared over the stern. Jan had not even noticed the next one being bent on to it as he stood busily at his post. But, as the last hook went over, the empty basket was kicked aside and a new full one replaced it. The line went on unrolling and the silver seeds sinking. It worked so easily that he could hardly believe a hitch possible. Yet it had been while they were shooting, quietly, just like this, that a fankled part of the line had torn out half the hooks of a basket and sent them tearing through Sandy’s oilskin, dragging his right bicep from the bone. And Jan became suddenly conscious, as he stretched out a hand to lift a hook from the cork padding,
The Great Lines

that he too could easily end up with a similar injury if the rope
snarled. That, he now realised, was why the sharemen had been
so keen for him to practise filling a basket with line.

Then, too, it was like watching the roots of a harvest pulling
themselves up toward the sun, to stand on the hauling platform
and look deep into the sea as the lines came up again. Hooks
whirred in at intervals of three and a half fathoms. The line al-
most tinkled over one grooved wheel, under another, and on to a
small idling roller, and Jan would curl it roughly into a
basket. Most of the hooks would be mere bright steel but a wrig-
gle of the hemp and a feel of strain would warn him to expect
a fish on the next one. If it were small he could take it aboard him-
self, hardly interrupting the rhythm of the mechanical hauler; but
a large fish had to be held just under the surface of the water while
one of his mates clipped it with a long spear-like gaff. Then it
would be swung over the rail and on to the deck where it would
lie till the hook had been taken out of it and the nine foot snood
that had held it to the ground-line was again free. These skate
were like huge fruit attached unexpectedly to a tall creeping ten-
dril and the tendril had grown through two hundred fathoms of
brine before it ripened into slabs of living flesh on the Honor’s
deck.

Once his line was in, Jan would retire under the high whale-
back prow to brood over it and sort the snoods back into their
proper order, replacing every hook carefully in the cork rim of
the basket, and examining each inch of his half mile of hemp. If
there were a flaw, due perhaps to the tugging of a half-ton fish or
the rub of currents against a rough surface, the faulty part of the
line had to be cut out. By the time he had made this minute in-
spection and whatever repairs were necessary, it was his turn to
go back to the hauler and bring in his next half-mile of fruitful
hemp.

All the sharemen worked like that, and it was a hard grind. It
left them not a moment for the gutting of fish. That job was done
by junior members of the crew, the single apprentice, the cook,
the two firemen and even the engineers, all of whom were paid in wages and perqs (liver money, etc.), and did not share in the profit of the cruise. But the mate was a shareman and, though very young, he somehow managed to shoot and haul his own gear, to pack his basket with line and repair the frayed parts. And after all that was done, he stowed the fish in the hold and tended to it even more carefully than he would have done on a trawler. The work of the men on wages, however, was made easier by the size of the fish that were caught by the great lines - fish that were strong enough and fast enough to escape a racing trawl. A single large halibut might represent more than a whole case of a trawler’s cod or haddock, more money, more weight, a higher proportion of the total catch. But it was much easier to gut the single fish than the hundred or so present in a box of small gadoids.

Jan was so comfortable in his sense of home-coming that, at first, he did not notice how strenuous the work was. By nightfall on his second day of fishing, however, he began to feel oppressively conscious of the fact that he had had only one and a half hours’ sleep in thirty six hours. Just after the last dahn had gone over, Radcliffe had shouted aft that they were going to tide for an hour or so. The whole crew had made for their bunks. Only Radcliffe himself had stayed awake in the wheelhouse. And that was what was worrying Jan even more than his own fatigue. Radcliffe had not slept at all, not even for one and a half hours, yet he seemed to have no intention of tiding on this, the second night. And he did not appear to be tired, nor did anybody else aboard the Honor. They were all tacitly agreed that one and a half hours’ sleep every second night was quite good enough for linemen. This, Jan surmised, was how they earned their social prestige.

He had been a little pessimistic. When he counted it up at the end of the trip, he found that, during the ten days they spent in fishing, he managed fifteen hours’ sleep. When Radcliffe slept, if Radcliffe slept, Jan could never discover. He always seemed to be awake. He never showed any sign of fatigue, his slow spare movements continuing unchanged to the end of the trip. Perhaps his
The Great Lines

voice went down a note or two and his eyes hazed slightly, but Jan was himself too weary to trust his judgement about such subtleties.

Yet, through all this weariness, he could not afford to pass a bruised inch of hemp or coil a snood in the wrong place. He had to keep himself warily alert for the strain on the hauler when a fish was coming up. Especially he had to be careful about this when he reached the Denmark Straits. They found halibut there in numbers that surprised even Radcliffe, but they also found sharks. Twice Jan actually saw a shark lean on its side to tear out the belly of a large halibut. The first time it succeeded, but on the second occasion Jan was more wakeful and flicked his catch out of harm's way. The shark rose to the surface to make another attack but the mate and two of the other sharemen poked at it with their clips and beat it off till the halibut could be brought over the side. But twenty fish were spoiled by sharks that attacked them when they were further from the surface. In every case it was the belly of the halibut that was lost, with the large rich liver, and in every case it meant that the market value of the catch was reduced to something very like nil.

The sharks, though, were not the worst of the sea pests. They took only the belly. The remainder of the fish could not, indeed, be sold, but it could be eaten by the Honor's crew. When the sea-lice attacked, they took everything. Sometimes there was only a skeleton as clean as a fossil to be hauled aboard. These lice were little crustaceans, similar to fresh-water shrimps and they lived on the sea-bottom in immense numbers. The numbers must have been immense for them to be able to gnaw away the entire body of an eight-stone halibut in a few hours. They were one of the things that Jan wanted to study when he got into University; they, and the feathers, and tatties, and the food of the herring, and the herring itself with its complicated systems of migration, and all the other vertebrates and invertebrates of the sea. He was very sure that his experience as a fisherman would be useful to him in his career as a scientist.
The sea-lice were a nuisance but they did not finally interfere with the success of the trip. When the *Honor* put into Aberdeen at the end of three weeks, she had more than ten tons of large halibut aboard her. These fish alone fetched two thousand pounds. The larger catch of skate and the smaller ones of cod, ling and torsk, added another thousand. Even after he had paid Sandy two-thirds of his share, Jan was left with more than twenty pounds for every week’s work.

Even more than the money, though, was the sense of achievement, of having sailed with these most exigent and best-experienced of seamen without having made a fool of himself. Jan had now mastered all the main techniques of commercial fishing. He was ready to try his hand at something even more complicated and, in the end, mysterious. Radcliffe wished him luck in the bar of the Station Hotel when Jan left to catch the train for Glasgow.