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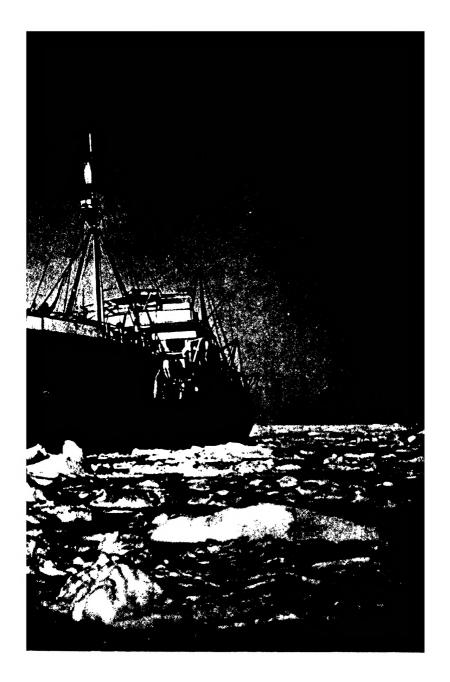
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R.R.S. Discovery II.

SOUTH LATITUDE

BY
F. D. OMMANNEY

WITH 16 ILLUSTRATIONS

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THE OFFICERS, SCIENTISTS

AND

SHIP'S COMPANY

OF THE

ROYAL RESEARCH SHIP Discovery II WITH WHOM I SAILED.

. . the earth is full of Thy riches.

So is the great and wide sea also: wherein are things creeping innumerable, both small and great beasts.

There go the ships and there is that Leviathan whom Thou hast made to take his pastime therein.

These wait all upon Thee: that Thou mayest give them meat in due season.

Psalm civ, 24-27.



This book is merely a record of personal experiences and is in no sense an official account of the work carried out under the supervision of the "Discovery" Committee on behalf of the Government of the Falkland Islands. The author is indebted to that Government for permission to publish the book.

CONTENTS

CHAP.							,	PAGE
I.	South .	•	•	•	•	•		I
II.	Leviathan	•	• .	•				17
III.	This Little V	Vorli)	•	•	•		31
IV.	Pursurr	•		•	•			44
v.	SHOT AT DAW	/N	•			•		58
VI.	Wings .		•					70
VII.	Interlude in	BLAC	K			•	٠.	80
VIII.	Metropolis	•				•		99
IX.	ICE-TRAP		•	•				116
X.	ESCAPE .		•		•			131
XI.	EIGHT BELLS							142
XII.	Scientific							150
XIII.	OCEANIC			•				162
XIV.	Imperial		•	•				169
XV.	To the Barr	IER	•			•		183
XVI.	Internation	L	•					196
XVII.	LITTLE AMERI	CA			•	•		211
XVIII.	Laurels	•				•	•	219
XIX.	THE CROUCHI	ng Be	AST		•			226

CONTENTS

X

CHAP.						:	PAGE
XX.	Internal Combus	TION	•	•	•		235
XXI.	Encounter .	•	•	•		•	243
XXII.	THE OLD MAN O	F THE	Sea				252
XXIII.	IGLOO		•	•		•	262
XXIV.	SACRIFICIAL .	•		•		•	270
XXV.	THALASSA! .	•	•	•			278
XXVI.	A Ship! A Ship!	•	•	• •			290
XXVII.	LOOK HOMEWARD	1 .					202

ILLUSTRATIONS

R.R.S. DISCOVERY II	•	•	Fre	ontisf	nece
" My new white home " .			facing	page	16
"Behold! Leviathan" .				•	24
"It stood its ground".				•	66
" STRANGE-LOOKING BEASTS	·" .		•		94
"A gregarious people".				•	102
" We carried kedge anchors	out "			•	140
" Nothing, after all, to since	3 ABOU	г".		٠	148
Zoologists. J. W. S. Marr	and F.	D. O.			158
"Agony to the fingers".					166
"Turned to the uses of peac	œ".				178
"They bound sledges".					182
"They drift northwards".				•	188
LINCOLN ELLSWORTH AND HOL	lick K	ENYON			208
" We said good-bye to Littl	е Амен	RICA "			216
" AIR OF DESOLATION AND	OF TRA	GEDY "			224

CHAPTER I

SOUTH

THE factory ship Antarctic left Barry Docks apparently with the greatest reluctance. She was nosed and coaxed and edged out by tugs, which belched clouds of black smoke into the clear September air. People shouted at her from the quay and from the tugs. But if she was reluctant to go it was scarcely to be wondered at. She was bound for the Antarctic ice for yet another whaling season and between her and those forbidding seas lay the "roaring forties."

She was being given a great send off this fine evening in September 1929. The air of her saloon was still thick with heavy smoke and the table littered with glasses which a steward was clearing away. When I and Wheeler entered the saloon after coming on board it had been crammed full of men in bowler hats drinking whisky. Now they stood in a little crowd below on the quay, waving their bowler hats up at us and cheering, ridiculously foreshortened from where we looked down on them. As we edged slowly through the dock gates a bugle sounded far off. As we rode gently out into the bay a band on a brilliantly lighted pier played "God Save the King." A light from a hill top winked "What ship. . . . What ship. . . . What ship?"

For the past two and a half years I had been lecturer in Zoology at East London College—now Queen Mary College—in the Mile End Road. I helped the sons and daughters of the inhabitants of that delectable neighbour-hood to pass their first medical examinations. The beginning of every new session of the college, when we began again in October with the Amoeba, having dismissed the old lot in June with the urino-genital system of the rabbit, gave me a dreadful feeling of inevitability, of the circularity of life.

It was like going round and round on the Inner Circle and fetching up endlessly and regularly at the same station. in June 1929 I applied for a vacancy on the scientific staff of the "Discovery" Expedition, whose business was the study of whales in Antarctic waters, and then forgot all about it, prepared to continue my ride on the metaphorical Underground until the cows, as it were, came home. My interview with and acceptance by the "Discovery" Committee, however, brought my dreary career to a halt and I got out of the Underground, literally, at St. James's Park. There, in a small office surrounded by Antarctic photographs, I went through the antics inseparable from a medical examination. I said "Ah." I said "Ninetynine." I opened my mouth and showed my much tinkeredwith dentition. I coughed. They told me I was to go to South Georgia by the Antarctic, a Norwegian floating factory ship which was due to sail from Barry Docks in a few days. I was to carry out the examination of whale carcasses at a whaling station, in continuance of work the Expedition had been doing there for the past four years. Wheeler, my colleague and immediate superior in this work, would meet me in Cardiff. They said "We've given you a pretty dirty job." I did not care. My first M.B. class could assemble without me. Someone else should instil the dog-fish, the frog and the rabbit. I should never see those drawings made at Ilfracombe during the long vacation.

Now Wheeler and I had met and were together leaning over the rail of the Antarctic, watching the lights of the Welsh coast come out and wink in the gathering dusk. We were still behaving defensively towards one another as strangers do when they first meet—I particularly so because I had no idea what sort of a place I was going to or for how long. I had an idea it was for four years. Also I was feeling slightly home-sick, in spite of my initial enthusiasm. We were bound for the Expedition's Marine Biological Station in South Georgia where Wheeler had already spent the best

part of three years. He described the place to me in the greatest detail without conveying the slightest impression of what it was like, except that it all sounded exceedingly depressing even though he described South Georgia, that bleak island in mid-South Atlantic, as though it were some other Eden, demi-paradise. Now, I was much younger in those days and things frightened me easily. I was especially frightened of people, places and things that were unknown to me. Enthusiasm made me draw back suspiciously. I suspected South Georgia and, as Wheeler expanded about it, leaning over the rail of the Antarctic, I began to feel as though I were going to prison and never fully shook off the feeling throughout the voyage. I felt at that moment that I was going to some sort of Devil's Island, an isle of lost hopes. He showed me photographs of my destination, my home for I knew not how many years to come. In the grey colourlessness that all places wear in photographs the place appalled me.

The Antarctic was an old New Zealand Shipping Company's ship of about 12,000 tons, converted by her Norwegian owners for use as a whaling factory. In her saloon, where a meal was being laid at a long table, was a mass of shining brass and an uncompromisingly English sideboard with a mirror. On the walls were lithographs of Scottish scenes-Princes Street, Edinburgh; a highland glen; Loch Katrine. Over the steward's pantry just outside the saloon door was the word "Pantry." Over the bathroom door, which was opposite the steward's pantry, was the word "Bathroom" and in the lavatory were still the words "Passengers are requested to leave this place as they would wish to find it." These words gave the ship a homely feeling but over the door of the Doctor's cabin was the word "Laege"—a foreign note, a definite assertion of their nationality by the new owners of the ship, which stoutly refused to become anything but British. She had been converted into a whaling factory but resented the process.

She was still a proud passenger-carrying liner and, as she rose and fell gently now on the Bristol Channel swell, you felt that she objected to her changed status.

Indeed she was astonishingly transformed. Her stern had been cut away so as to make a slipway, and at the foot of that Gadarene slope, her twin screws churned the water into a smother of foam. Both her fore and main masts straddled across the deck on rectangular gantries, leaving large clear sweeps of deck both fore and aft. In the after deck space there was a row of eight hatches on each side. These, when lifted, revealed the gaping, black, odorous mouths of the pressure boilers below. Forward there was a row of fourteen such hatchways on each side, each one also covering a boiler. On the fore and after decks there were steam winches. .The whales were hauled up the stern slipway and stripped of their blubber on the after deck and the strips cut up and tipped straight into the mouths of the boilers. the light of my now superior knowledge I know that most ships of this type have a "hopper" with a circular revolving knife which cuts up the blubber into small strips and feeds it to the boilers, but I confess that I cannot now remember whether there was one in the Antarctic or not. When I joined her in Barry Docks I was new to the game and had no idea what anything meant on board the ship. My knowledge of her working was gained slowly and with difficulty, and my memories of the geography of that most hospitable ship are now, after eight years, a little confused with the memory of others. After the blubber had been stripped off the bleeding carcasses they were towed by wires along the deck to the forward deck space. On their way they had to pass the saloon door and the door to the pantry and the bathroom. I never saw the Antarctic in operation but they told me that this was one of the ship's less amiable characteristics—namely, that the blood and stench of the carcasses was literally brought to your doors. But then, as I have said, she resented the fact that she was a factory anyway. On the

forward deck space the carcasses were pulled to pieces and the bones cut up with steam saws. The pieces were tipped into the gaping mouths of the boilers below deck. And this was another of the unamiable features of the ship. enabled her from time to time to claim a victim, for the mouths of the boilers were just square holes in the deck, gaping and unfenced. When there were whale carcasses on the deck in process of dismemberment the whole space became a mass of blood and guts, as are all whaling factories in operation. Winches belched steam and rattled, steel hawsers flicked and tightened in all directions, swinging bleeding masses of flesh from place to place. It sometimes happened, in the midst of this clangour and confusion, that a man missed his footing and fell into the mouth of a boiler. There is one part of a whale's anatomy that is a particular danger. It is the tongue, which is nothing but a great bag of connective tissue, a vast slithery cushion. If you step on the tongue as it lies amputated upon the deck, it seems to ride away with you for several yards and then you fall down heavily on your backside, which will always cause everyone present to cease work and stand roaring with laughter at your misfortune. You get up rubbing the parts affected and pretending it was a mere nothing. But the Antarctic claimed more than one victim in this way, for sometimes a man would step on a piece of tongue and ride away on the slithery mass along the deck, clawing at the air and staggering for balance, straight for the hot, stinking, black mouth of a boiler. Down there the tongue flopped quivering on top of him. I was told this with a kind of relish.

But I never saw the Antarctic at work. This evening the decks were clean and empty, the winches silent and the wires coiled upon their drums. In the saloon dinner was ready. A stout steward announced the fact on a gong. We stood in two respectful rows, one on each side of the long saloon table, Wheeler and I opposite one another at the foot, awaiting the Captain and the Manager. When they came

in we sat down and began a meal which was the first of many. They were all much the same and we lived well on board the Antarctic for the Norwegians are extraordinarily good at tinned, canned and preserved foods. The excellence of their tinned meats and fish, their preserved tongues and their pickles, their anchovies and their ice-cold fruit straight from the refrigerator, covered with glistening dew, makes me think now with shame of the meals I have endured since in British ships with their prunes and tinned apricots, the rice, the sago and the roast mutton, full of red strings between the meat. We lived well on the Antarctic. I cannot pretend that I suffered hardship on my first voyage into the south. With lunch and dinner, following the Norwegian custom, we drank lager beer, white wine and an aniseed liqueur called "Aquavit"—all at the same time. At twelve o'clock every day we took cocktails in the Manager's cabin. These gatherings were delightful. The Manager, Andreassen, had a perpetually beaming rosy face and was short, stout and immensely broad. He spoke Norwegian and Spanish but no English but, by signs and gestures and grins, we became great friends. There was a world of geniality in his handing of a cocktail. At noon daily he put his head through the door of his cabin, which led off the saloon, and called out "Señores!" and everyone, gathered strangely enough in the saloon at this hour, trooped in. Everyone, that is, except the Captain who never seemed to be present. Perhaps I should explain that all the larger whaling factory ships carry a manager, who is responsible for the oil production, for the working of the factory and who decides broadly its movements upon the whaling grounds, and a captain who is responsible for the running of the ship herself and for her navigation. The Captain of the Antarctic was a huge silent man with a fair moustache who usually appeared only at meal times. He spoke English well but seldom and had a way of suddenly re-discovering the presence of Wheeler and myself, addressing a few words to us and then forgetting us.

The gathering that used to assemble for meals in the saloon consisted of the Captain, at the head of the table, the Manager, on his right, and six others besides myself and Wheeler. The table buzzed with conversation, all in Norwegian. It is a pleasant sing-song language and, in spite of the fact that it looks so ugly written, it falls softly on the ear. There were frequent bursts of laughter when Wheeler and I laughed in sympathy, having not the faintest idea what the joke was about. Most of the time, for some reason that does not seem very clear to me now, we thought it expedient to sit at table with a sympathetic but somewhat fixed grin. There was the Doctor, the "laege" or leech, who sat on the Captain's left. I made no particular contact with him except once, later in the trip, when I caught a cold and, streaming from the nose and eyes, asked him for some quinine. He was rummaging in a drawer in his cabin and turned round in astonishment at such a request. "Quinine? I have no quinine." And went on rummaging. There was the secretary, who looked after the clerical work of the ship. He was very proud of his English which he used on all possible occasions, starting long conversations and then getting out of his depth and falling back on the useful word "yes." When he began answering "yes" indiscriminately to everything one knew that he was missing the drift. At meals he sat next to Wheeler and used to pass things to him saying always "You must take it. It is good for the stomach," and then wink in a knowing manner as though what he did not know about stomachs was not worth knowing. The secretary promised to teach me Norwegian and gave me two lessons in his cabin. After that, though he assured me that I was brilliantly clever at it and amazingly quick in the uptake, we somehow did not persevere. After each of the two lessons he set me an exercise. He corrected the first one but the second he lost. Besides these there were the four whaling gunners. At South Georgia they would each take command of one of the fleet of four whale catchers

attached to the factory and at present laid up for the winter in Leith Harbour, South Georgia. Two of them, I am afraid, have left no picture in my mind at all. I cannot even remember what they looked like. The other two I remember well and with the greatest pleasure. The name of one was Christoffersen and I think he had been whaling in the South Shetlands for some years. He was a short burly man with a humorous red face full of kindness. was a man of education and wide reading. He had read the English classics extensively and knew more of English history than I have ever known in my life. It was perhaps strange to find a whaling gunner so well educated because I have never since done so. I have met kindly and genial whaling gunners, or shrewd and observant whaling gunners, or tough silent ones, but Christoffersen was the only one I have ever met whose education was liberal, whose reading and general knowledge were wide and who looked upon his job with such an intelligent eye. He was intensely interesting about the habits of whales and Wheeler kept a book in which he noted down Christoffersen's remarks, shamelessly picking his brains. The name of the other gunner I forget. He was one of the youngest in the whaling fleet, enormous and strikingly good-looking. He began, I thought, by being a trifle surly at the beginning of the trip but presently thawed and took to shouting at me when I came into the saloon for breakfast, "Too late! Too late! No breakfast." It was all the English he knew and was always followed by a loud laugh. Presently he took to bursting into laughter whenever he saw me and I would laugh back. Though we never spoke to each other properly, because he knew no English and I no Norwegian, we became, in this highly intellectual manner, excellent friends, by making faces and rude gestures at each other. In the saloon in the fore-noons we would play ping-pong on the saloon table and usually end by throwing oranges at each other.

This was the company with whom Wheeler and I spent

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three weeks at sea. They were happy and idle weeks spent pitching gently through the blue tropics and finally, less gently, through the grey forties. We played ping-pong, we read, we walked the deck. Every evening Wheeler and I walked up and down the deck under the swinging stars, getting to know one another. I began to like him though to the end I could never share some of his enthusiasms, but I did come to share some of his aversions. He did, however, fill me with an enthusiasm for zoology and for the problems presented by the natural history of Antarctic whales which it was to be our business to investigate in South Georgia. am one of those people who require to have their enthusiasm for any particular subject bolstered up by that of someone else. Without aid it is apt to languish. In this I resemble a monkey and some people have this revivifying effect on me while others fail dismally. Wheeler succeeded during the whole of the seven months I worked with him. The "Discovery " Expedition, equipped and sent out on the recommendation of a committee of the Colonial Office in 1924 to inquire into the biology of whales in the Falkland sector of the Antarctic, had built a biological station at Grytviken, in South Georgia, from which scientists had been making careful notes on the whale carcasses at the neighbouring whaling station for the last five years. Wheeler had already spent three summers and one winter at Grytviken. It was to hima kind of second home.

During our promenades on the deck or when sitting reading Wheeler and I were a source of astonishment to the crew. Often I would be conscious of presences when I was reading and look up suddenly to see four or five blond giants standing a few yards off, staring at me fixedly with their arms folded as though I were some strange exhibit in a zoo. When they saw themselves observed they turned and walked away. Once I tried a smile to see what that would do. It had no effect of any sort. Altogether I seemed to have the most odd effect on the ship's company. Amidships on the

deck a pair of rings had been slung and some of the men used to come and exercise themselves with them, hanging upside down by one arm and lifting themselves or turning somersaults, showing immense knots of muscle. Attracted by sounds of laughter I once strolled that way to watch. But instantly the group dissolved and the performer, hanging upside down, hurriedly righted himself, dropped from the rings and walked away. I was extremely embarrassed by this quite unexpected reaction and never went there again or attempted any sort of approach.

The Antarctic seemed to me to be a happy ship. Like all Norwegian ships she was easy-going and the discipline was less rigid than in many British ships. Every member of the crew was respectful to the officers but somehow on an equal footing with them. There is no Norwegian equivalent for "sir," but the Captain received a polite lift of the cap from everyone and always politely lifted his in return. On Saturdays the men lined up outside the saloon door and were dealt out tots of rum by the steward. Each drank his tot then and there under the steward's eye so that there was no saving of tots and no bartering. In the saloon was the ship's library in charge of the secretary—a cabinet full of well worn editions, many of them translations of the English classics and many by Norwegian authors, Knut Hamsen prominent among them. Every Sunday the men trooped into the saloon and drew books out or returned them. They came into the saloon in their singlets or even stripped to the waist, enormous and hairy, and went out again silently.

There came a day when we all sat at dinner, everyone talking rapidly in Norwegian except Wheeler and I, who sat with our usual glassy grin, sensing jokes that we could not appreciate. We were nearing the Equator and were in shirt-sleeves and singlets. As the steward moved around the table handing things he repeated continually his polite "Vaere so god." ("Be so good"—the equivalent of the German "Bitte schön".) The young gunner had two

miserable little puppies which he had bought from a bumboat man in Las Palmas. He carried them about inside his shirt and they squirmed round and round his waist under his shirt as he unconcernedly went on eating and talking. Yesterday Christoffersen had had his hair cut by the young gunner who, for a joke, had shaved all his hair off clean except a tuft on the very top. So now Christoffersen went about like a mandarin and sat unperturbed at dinner with the tuft tied up with a little bow of pink tape from the chart room. Conversation was suddenly interrupted by the appearance in the doorway of a very young seaman, flushed and triumphant, carrying a long-handled curved flensing knife. He spoke to the steward, who in turn spoke gravely to the Captain. The Captain bowed to the seaman and said something to him, and the seaman said "Mange tak" and went away. When he had gone everyone, including the stewards, burst into uproarious laughter, and Wheeler and I, not knowing in the least what it was all about, laughed too. The boy had reported to the Captain that the Equator had been well and truly crossed and the line cut so that the ship could proceed. An old sailor's joke had been played upon him, the youngest seaman on board. On this hot starry night he had been informed that we should cross the Equator. An age-old tradition of the sea demanded that the youngest member of the crew must cut the Equator and report to the Captain before the ship could proceed. He was conducted to the bows of the ship where a thread had been tied between the rails, spanning the deck. This he gravely cut with the flensing knife and reported it, eyes shining with triumph, to the Captain. He was a simple lad. He was only fifteen and came from Aalesund. When the ship was lying in Tonsberg he had seen phosphorescence in the water and had climbed down the side of the ship on a rope and collected some sea-water, believing it to be full of gold.

We crossed the Equator. Thereafter the sun became less and less strong and the flying fish skimmed less and less

frequently away from the bows. Christoffersen's hair began to grow, changing from stubble to bristles as the sun declined in strength. At night the Great Bear began to lie very low in the northern sky and in the zenith shone that disappointing constellation, the Southern Cross. Soon we were in the south-east trade winds and the sea was whipped into short sharp waves with creamy tops. The Antarctic began to pitch. Our new cabin, built out on the deck, began to creak and crack during the night and I began to feel sea-sick. The now terribly familiar combination of sky and water that I beheld on coming out of our new cabin in the morning became less cheerful in aspect and as the eye wandered over it there sometimes rose up in the distance a plume of spray, which stood for a moment in the view before it disappeared. It was a whale spouting. And then one morning, when I came out on deck, I saw that the Antarctic was no longer alone under the sky for, now floating aloft above the masthead, and now skimming down over the tops of the waves on motionless outstretched wings was a great bird, a Wandering Albatross. The flight of the albatross is a lovely poem in motion. He takes the wind in huge arcs and circles, sometimes close to the ship and sometimes far off, sometimes gliding down so that the tips of his wings almost touch the water and then rushing upwards into the blue without moving his wings at all. Next day he was joined by another and soon we had two or three wayfarers keeping us company. Sometimes they would alight on the water in the wake of the ship, coming down with their feet splayed out stiffly beneath them. Anything thrown over the side of the ship, such as a packing case, or a bucket full of potato peelings, or even a tobacco tin, claimed their immediate attention. Down they came and, if there was anything worth having, they remained there busy with it until they had dropped far astern and you could see only two or three black and white specks bobbing on the water a mile or so away. But soon they were around the ship again, effortlessly circling and

gliding with their alert black eyes on the look out for anything the ship might drop. If a man were to fall overboard the albatrosses would be on to him at once, and a gunner told me that the chief danger he ran when he once was swept off the deck of his whale catcher arose from the swooping sea birds, which attacked his eyes.

A day or so after the appearance of the albatrosses it became suddenly unpleasant to go out on the deck without something on one's head. The crew, binding faggots together to make fenders, splicing ropes, rigging the steam saws, now wore heavy clothes, sea-boots and leather furlined caps. The young gunner carried his puppies in the pockets of a thick coat, like a kangaroo with a pouch on each side. I suffered for my initial ignorance and lay awake all night in the creaking cabin suffering torture from neuralgia behind the eyes. Next day I wore, self-consciously, a new fur-lined leather cap, feeling somehow that I did not look the part. The sun was gone and the whole sky was covered with grey masses of flying cloud.

Let me say something about the sky for it is at sea that you notice it most. It becomes inevitably a feature of your daily life, and, with the sea, it makes up the whole of the world outside your door. It takes on a life and a reality of its own which finds its way into the consciousness of everyone on board. When you come out on deck your whole vision is at once filled with the sky, with its blue, with its grey, with its battlements and patterns of cloud. From it your eye travels downward to the sea in which its colours are reflected. Different regions of the world, different seas, have skies of their own, and, as you pass through the Atlantic southward, you pass from one type of sky to another. In the tropics the sky is hard blue or angrily and hazily overcast, but between the latitudes of Rio and Buenos Aires it becomes a limpid blue and on the horizon stand built-up towers and pyramids of yellow cloud, all on a common misty base where sea and sky meet. But now, suddenly, these had disappeared and

the sky was overcast with hurrying masses of grey under which the sea was iron grey and sullen, the waves rushing before a driving wind and creaming at their tops into masses of foam which slid down their backs. Bursts of spray flew over the bows of the Antarctic as she butted through them. We had arrived in the "roaring forties." In the old sailing ship days, when the grain ships used to fight their way round the Horn from Australia to England, sailors knew that before they reached the trade winds and the tropical sun, the Southern Ocean, between the latitudes 40° and 50° south, lay in wait for them with furious gales, with fog and with icebergs, drifting up from the south. They gave the nick-name "roaring forties" to this part of the Atlantic Ocean, for these arc, I suppose, the most terrible and dangerous seas in the world. Across them great westerly gales rush shrieking after one another and there is nothing to stop their course. The elements rage together continually in a welter of grey nothingness hundreds of miles from land. Cold water, chilled by contact with the Antarctic pack-ice and by its melting, meets warmer water in these latitudes so that a warm and a cold atmosphere meet and there is condensation causing constant fogs. Lastly, from the south come icebergs, remote, forlorn and lonely, looming suddenly out of the fog like ghosts, each one a death lying in wait. But there were in these seas more signs of life than I had seen throughout the whole southward passage. The three or four Wandering Albatrosses had been joined by hundreds of other travellers. Young albatrosses, mottled instead of black and white, made smaller and less skilful arcs around the ship. Smoky grey Sooty Albatrosses had joined them. Speckled Cape Pigeons, with their quick busy flight, were continually settling on the water and then hurrying on. Flocks of blue Whale Birds—"Blåfugler" Christoffersen called them skimmed about the middle distance and Mother Carey's Chickens rode upon the backs of the waves like large black moths. Sometimes a school of dolphins burst through a

wave and dived and snorted in unison. More often than before one saw, far off or near, the spout of a whale, followed by its long slow-curving back. For this part of the sea swarms with minute life. These are the pastures of the ocean which every spring burst into swarming activity so that the sea becomes filled with myriads of floating, drifting organisms which form the food of all these birds, dolphins and whales which take their pastime here.

One night we rolled, hooting dismally, in a dense fog. We were to arrive in South Georgia the next day and our pleasant journey was nearly at an end. However, being uncertain of our position in the fog we lay here all night hove to. Hansen, the manager of the Leith whaling station, would send a whale catcher out in the morning to pilot us in. So we rolled heavily all that night and the cabin creaked and I felt very sea-sick. When I awoke in the morning the fog had gone and in its place was a scene of breath-taking beauty, my first view of South Georgia. An immense blue swell was running so that the sea seemed to be a series of relentlessly advancing ridges over which the pilot whale-catcher rode proudly, rising now high upon a swell and then sinking in a trough so as to be half hidden from view. The smoke streamed from her funnel and the flag of Norway fluttered at her stern. Behind her, a mile or so away, rose the high white mountains of South Georgia, towering into the clear sky and the pale sun flashed and glittered upon them while their tops carried little plumes of cloud. Slowly the Antarctic nosed her way, the pilot catcher leading, into a long fjord walled by snowy slopes. far end the smoke from the huddled black buildings of the whaling station rose into the still air, in sharp contrast to the snows that lay around. Sea birds swarmed in millions upon the water and around the ship so that the air was filled with their cries. The whole scene was one of cold and flashing splendour and filled me with a strange exhilaration, an enthusiasm for this, my new white home.

The gunners had collected their gear into kit-bags and stood with them on the deck, posing while I took their photographs. The young gunner put his cap on at a rakish angle, threw out his chest and then made a rude gesture towards the camera at the moment I pulled the trigger. Four whale catchers came up the fjord towards us, lithe and graceful little ships, each with a barrel on the foremast and a vicious-looking harpoon gun mounted on the bows. On their funnels was the blue cross on a white ground which the Antarctic wore on hers. They spun round easily and lightly and came alongside swiftly with one kick astern, churning up the water. The gunners' kit was slung aboard each and I said farewell and "Good hunting" to each gunner as he boarded his own little vessel. I never saw any of them again. A motor-boat chugged alongside and Wheeler and I boarded it. As the space of water widened between us and the Antarctic our hosts for the past three weeks waved to us from her deck. The crew, gathered along the rail, gazed down at us still as though we were specimens in a zoo. We passed under her stern where there was written "Antarctic-Tonsberg" and past her huge open whale slipway, up which soon the dead bodies of the Leviathan would go to their mass cremation. To the stolid fair-headed men gazing down we cried "Fuld fangst!-Good hunting!" One or two lifted their caps. They had reacted.



Photo I C Fraser

CHAPTER II

LEVIATHAN

THE dentist swung his drill towards me. Its counterweight ball grew larger and larger, like a football, like a pumpkin, like a world. He began to drill and the vibration went right through my head and became a ringing—the ringing of an alarm clock I put out a hand and stopped its clamour and then remembered where I was. I leapt out of bed and wiped the moisture from the window. It was snowing. Against the jagged black mountains, barred with streaks of white, the flakes whirled and danced and eddied. The black buildings and chimneys of the whaling station across the harbour were almost obscured by them but there, on the mainmast of the old coaling hulk, fluttered, beyond all possibility of doubt, the tattered red flag. This was an arrangement we had with the old foreman at the station, who stumped about the whaling slipway on his bowed legs and tugged at odd lumps of flesh with a whale hook. there were whales waiting at the slipway to be cut up he hoisted the flag so that we, Wheeler and I, peering through the windows of the Marine Biological Station a quarter of a mile away across the bay at four-thirty in the morning, should know that we must turn out. I put on thick trousers, an equally thick shirt and two jerseys. The Marine Biological Station was a long, low, one-storied building facing a wide bay on the other side of which the desolate mountains climbed steadily upwards to Mount Paget, the highest in the island, nearly ten thousand feet high. The house consisted of a long L-shaped passage. On one side of one leg of the L was the laboratory looking over the bay. On the other the living quarters, sitting-room, dining-room and bedrooms. The kitchen and other bedrooms lay off the other leg of the In the dining-room Wheeler was sitting, clad also in thick jersey and trousers, brooding at half-past four in the morning over a cup of cocoa. There was a cup for me and I drank it while King George, in his deal frame, gazed down upon us in full admiral's uniform. Above him on the deal frame was a little gilt crown on a little gilt cushion to show that it was indeed a royal portrait. On this ornament I fastened my eyes nearly every morning for two southern summers. When the cocoa had been gulped down we rose, and, still in complete liver-bound silence, for it was only a quarter-past five even now, went into the rough laboratory, adjoining the main laboratory, to put on our whaling clothes. The rough laboratory stank, for here, on a leadcovered table, portions of the extracted viscera of whales were examined, and here our whaling overalls hung. At this hour of the morning the rough laboratory seemed to stink more than usual. We put on our whaling overalls, stiff with dried blood, high rubber thigh-boots with long spikes in the soles, and a leather belt carrying a sheath knise. An old cap completed this attractive outfit. I was pleased with myself in it. I felt that it made me look tough for there is nothing better, if you are not tough in the least, than to look it. Even if I did not look it I knew perfectly well that at the end of the day I smelt it, for the smell of whale is pungent and extraordinarily clinging. A whaly B.O. was inseparable from the work which Wheeler and I did. We went across the harbour to the whaling station in an open motor-boat with an engine housed amidships in an inadequate box. Often snow got into the box and water into the carburettor. You started this contraption by swinging a heavy handle. Sometimes it gave only a few answering sighs and subsided into silence. When this happened you kept at it until you had nearly burst a bloodvessel and then, finally, red in the face, sweating in spite of the cold and with a curious spiritual feeling in the midriff, you decided to row over in the dinghy which hung on davits from the jetty. In the middle of letting the dinghy into the water a long dreary call came across the water from the whaling station—the hooter calling the men to work. You could see in the distance the tall plume of steam the hooter sent up. When this happened we knew that the first whale would be drawn up before we got there. We made it a principle never to miss any whale brought into that whaling station if we could possibly help it, so we rowed in the dinghy like men possessed. But this morning there was no water in the carburettor and, after one or two swings, the engine sputtered and we were off, cutting our way smartly through the slushy film on the water, Wheeler at the tiller, his head down to keep the snow out of his eyes.

As you approached the whaling station from across the harbour the buildings seemed to open out and arrange themselves around a large square several acres in extent, the boarded surface of which sloped into the sea. This was where the whales were flensed, or stripped, and dismembered. The Norwegians called it the "plan" or level place. Along two sides of it were the buildings which housed the boilers in which the dismembered fragments of the whales were boiled down to give the clear, white whale oil. A shed containing the blubber boilers stood on one side and another containing the boilers for the masses of flesh, the "meat," stood on the other. Four bucket conveyers sloped up to the top storey of this shed and shot their masses of blood and flesh and guts into the tops of the boilers. At the back of the "plan" was a high raised platform with a long inclined slipway leading up to it. Here were the steam saws which cut up the skull and backbone and underneath the high platform were the boilers, into whose gaping mouths the sections of bone, neatly sawn up, were tipped.

Where the "plan" sloped into the oily scum-covered water there floated four whale carcasses and a motor-boat was chugging slowly up with a fifth, towing it tail first. They looked like immense balloons floating in the water and on their ribbed surfaces, the upturned bellies and

throats, birds perched and pecked and fought, screaming with outstretched wings. All the surface of the water around the whaling station was covered with this chattering shricking bird life, living on the garbage that floated to them from the "plan." Black-backed gulls swooped and bickered over the gory refuse on the "plan" itself and stood in rows upon the roofs of the sheds crying shrilly.

Behind the "plan," under the raised platform where the bones were cut up, was a lean-to shed. It was a kind of armoury containing rows and rows of long-handled knives with curved blades. These were the knives which were used to cut the whale carcasses into pieces. The handle of each was some four feet long and the broad blade perhaps three inches across. This armoury was presided over by an old man with only one eye who kept the knives continually sharp with a grindstone. Wheeler and I and our assistant had each one of these knives allotted to us by this presiding genius under orders from the manager. Every morning we went to his shed and were given our knives, each cut with a "D" for "Discovery" on the handle, newly sharpened on the grindstone. But sooner or later the morning would arrive when we noticed that our knives were not so newly sharpened. And then a few mornings after that it was obvious that they had not been sharpened at all. Then the old man would say that the sharpening of so many knives was terribly hard work and that he was getting old and hardly knew how he could go on sometimes because of the extraordinary and unaccountable dry feeling in the throat that constantly overcame him. Hadn't we any remedy over there—pointing across the harbour—for the dry feeling in the throat of an old man? So next morning, carefully concealed under our overalls, we would bring a small bottle of yellow fluid, the only really satisfactory remedy for the dryness in an old man's throat, manufactured in Scotland. And the following morning our knives were bright and keen as the sword of Saladin.

Now the hooter shrieked above the roof of one of the sheds and from their living quarters behind the "plan" three men appeared. They carried long-handled knives and stropped them with hones which they wore in their belts and on which they spat with unerring aim, holding them at arms' length to do so and never missing. They were dressed like ourselves in old overalls, stiff with dried blood, and high spiked sea-boots. They were Hansen, Fritz and Hartvig, the "flensers," skilled men whose sole job it was to peel the blubber off the whales in three long strips. They always appeared first upon the "plan" because, until the blubber had been removed, there was nothing for anyone else to do.

Hansen and Fritz were inseparables, always together. They lived next door to one another in Sandefjord and had been in the employ of the whaling station together for many years. They came out together in the same cabin in the transport ship and went home together in the same cabin. They shared the same cabin in their barracks on the whaling station. They laughed together and cursed together and one would not work unless the other was in the same shift and on the same job. I imagine they will die together. How they met I do not know. Hansen was a sailor, had a mate's ticket and had sailed in many British ships. He therefore spoke English well and called himself "just an old sailor." For a tot of whisky he would do anything and once worked hard for three days when there were no whales and he had time to spare, making a fender of plaited ropes to go round the counter of our motor-boat for this apparently insignificant reward. He had a face like a withered apple and a yellow walrus moustache, and his hands had the shortest fingers I have ever seen. Fritz, boon companion of Hansen, was an immensely tall and powerful man with a face rather like a family solicitor and a head which, when he removed his old cap, surprisingly revealed itself as bald as a pea. He spoke no English at all and when at work swore volubly in Norwegian. In negotiations with us for tots of whisky he played second fiddle to Hansen and usually just stood grinning and nodding. Hartvig, the third flenser, was a little out of it with these two. He spoke no English and only once a year came round to the Marine Biological Station to "drink our healths," which he did modestly, soberly and respectably, going away when it became evident that the time for going away had arrived. In this he differed from Hansen and Fritz who were never able to perceive the time for going away, no matter how plainly we indicated it. I remember Hartvig chiefly because he played a fast and vicious game of football, wearing very short shorts and sock suspenders on his white muscular legs. On one of the few occasions when I played football, ingloriously, against the Norwegians Hartvig kicked me violently on the shins with one of these suspendered white legs.

The whales were drawn up on to the "plan" by steel hawsers and steam winches. A loop of hawser was passed over the tail as the carcass lay in the water and, with the first tautening of the long wire, the great mass heaved itself out of the water. It jerked slowly and heavily up the slope until its head was well clear of the water and the tail lay half-way up the "plan" near the blubber shed. During these cumbrous voyages up the slope one of the flippers sometimes got caught on a post of an elevated tip-truck railway which carried coal across the "plan." Then you stood back for presently the flipper released itself with a resounding smack upon the wooden boards of the "plan." If you got in its way it would kill you.

Behold Leviathan! The largest of the creatures of the earth, the largest that has ever lived. Sometimes he is a hundred feet long and perhaps fifteen feet high—the size, maybe, of a three-coach electric train. He lies dead and inert now upon his side; one flipper sticking up in the air, but his shape, you can see, is wonderfully streamlined, bluntly pointed in front and tapering to the tail fins behind. These

horizontal tail fins give him his motive force. He is a whalebone whale and his mouth is filled with horny whalebone plates which hang down from the upper jaw—the baleen. His head is huge, flat and triangular and its geography is the oddest of any head God ever created. It consists chiefly of an enormous mouth stretched perpetually in a grin. The mouth is filled with the whalebone plates which hang from the upper jaw and, with their fringed inner edges, make a cavern roofed by tangled hairs. The tongue lies like a deflated balloon upon the floor of this cavern in which two men could stand upright easily. In the Antarctic these whalebone whales feed upon small shrimp-like animals which the Norwegians call "krill." These swarm in millions in the colder Antarctic seas and along the edges of the pack-ice and here the Blue whale, or Common Rorqual, and his cousin the Fin whale, or Finback, spend the southern summer browsing. The whale swims through the dense drifting swarms of "krill" with his gigantic mouth open, engulfing millions. Then, rolling over partly on his side, he closes his mouth and inflates his balloon-like tongue within it so that the sea-water streams out between the horny plates. The "krill" gets entangled among the matted hairs of the inner edges of the plates and is drawn backwards by the tongue into a throat so small that you could scarcely get your arm into it. Right at the corner of the vast grinning mouth is an eye, an utterly inadequate eye one would think, for, in relation to the size of the beast, it is of minute size. As the whale lies on the "plan" dead the eye, in death, wears a roguish, knowing expression. On top of the flat head are two slits, the blow-holes or nostrils, and with them the whale breathes, coming to the surface to do so for, in spite of his fish-like shape, the whale is a mammal and breathes air.

Now the flensers got busy on the mountain that had once been the Leviathan, plunging and snorting in the open ocean. Fritz, with his long-handled curved knife, made a cut up the side of the body, running along the top of the mountain with his spiked boots until he was fifteen feet above Hansen, who was making a similar cut along the creature's back, walking along the ground to do so. The cut that Fritz made and the cut that Hansen made joined upon the snout but Hansen got there after Fritz because he met with an obstruction. It was the bent harpoon, sticking out of the gaping, bloody wound, in which the torn flesh was blackened by the explosion of the charge inside the muscles of the back. Hansen had to cut skilfully round this. The skin of the whale is firm and smooth and shiny and, since this was a Blue whale or Common Rorqual, it was slate blue in colour. As the flensing knife passed through it, it parted crisply and underneath there showed a layer of hard white blubber several inches thick. This insulated the animal from the icecold world in which he lived since, being a mammal, he was a warm-blooded beast and not cold-blooded like a fish. Then the strip of blubber isolated by Fritz's cut and Hansen's cut was peeled off backwards from the beast from the head to the tail by a steel hawser. Meanwhile Hartvig had made another cut at ground level along the middle line of the grooved stomach and throat on the opposite side to Hansen. His cut ended at the tip of the lower jaw and isolated, with the cut that Fritz had made, a second strip of blubber along the underside of the beast, and this too was pulled off by a steel hawser. The two strips of blubber arched upwards and backwards as the hawsers pulled them off with a rending crackling noise while the flensers helped them by cutting under them with their knives. Soon two long strips of white blubber had been pulled off and lay upon the "plan," their inner surfaces upwards. The "plan" was now swarming with men, almost all of whom carried long knives. They came trooping out of their barracks while the flensers were busy stripping off the blubber. Among them were the blubber cutters whose business it was to cut up the long strips of blubber into square blocks like cheese and feed them to the hopper. The hopper was a



circular knife which revolved at a terrific speed, and with a maddening racket, past an opening in the wall of the blubber shed. The blubber cutters dragged their square cheeses to the aperture and the knife, whirling furiously inside, pulled them in and cut them into slivers which were shot into the boilers within the shed. There were six blubber cutters—two Norwegians and four Argentines of Polish extraction, who jabbered to one another in a Spanish of sorts while they worked. They were round, fat, jolly little men and laughed continually. Particularly they roared with laughter at Wheeler and me who were, of course, a standing joke on the "plan." Frequently, when we did anything which seemed to them particularly mockworthy, they doubled up with laughter and poked each other with the handles of their flensing knives.

But Wheeler and I got used to being a standing joke on the "plan." In all our movements we had to be exceedingly careful since the whole place became, as the morning went on, a maze of criss-cross wires flicking and tightening, whirling lumps of flesh, intestines, skulls and backbones from one end to the other. The din of the rattling and hissing steam winches and the machine gun rat-tat-tat of the blubber hopper were deafening. Blood and muck flowed in rivulets and cascades, and the sea around the "plan" became bright crimson. At first I fell constantly upon my backside to the delight of all. Occasionally I have come near ruination by the upward flick of a wire just as I was stepping across it. Sometimes I have stepped upon a slippery lump of flesh or a slithery cushion of tongue tissue and gone sprawling upon my face. They loved it. Sometimes I have suspected them of deliberately trying to trip me, starting to heave on a winch at the exact moment I was stepping over a wire. And sometimes a whale in an advanced state of decomposition would ome up on the "plan," sizzling with putrefaction. Several imes one of us had been standing near one of these when it had suddenly exploded, showering greasy, stinking, rotten

flesh over us and into our faces. That caused particular delight. But let it be said that they laughed at each other's misfortunes just as much and every bit as cruelly. Once I saw one of the men miss his footing on the long slope leading up to the raised bone platform. He slid down it and along half the length of the "plan" on his bottom, picking himself up at the end of it considerably shaken. The whole work of the "plan" was disorganized. About a hundred and fifty men ceased work for five minutes to roar with unsympathetic laughter. Others crowded to the windows of the boiler sheds and came running out of the furnace room to see what it was all about. Even the old man who ground the knives came hobbling out of his hole. The old foreman of the "plan" came stumping up with his steel whale hook in his hand, beaming with pleasure. "There he went. There he went," he said. "Yessir. Down he went. Poor man! " And he stumped off chuckling.

The first thing that Wheeler and I did to every whale was to measure the length of it from the snout to the tail and take various other measurements. The purpose of this was to find out, from the examination of a great number, whether any change in bodily proportions takes place with growth and what variations take place in the size of the whales brought into the station from month to month and year to year. The management of the whaling station also required the foreman to note down the length, sex and species of every whale for their own records. The foreman took his lengths from us but it was a long time before he would do so. For months he stuck to his four-metre-long measuring stick as against our hundred-metre-long tape. After we had made our careful measurement, being sure that the tape was straight and that one end was opposite the snout while the other end was opposite the notch between the tail fins, he would advance with his stick and begin to space off the whale along its surface from the snout backwards. Now a

whale's body is not flat sided but cigar-shaped and frequently the old foreman was not even very particular to hold his stick horizontal, so it is hardly surprising that the length, as obtained with his measuring rod, was widely different from the length which we obtained with our tape. "I makes it twenty-seven metres. Yessir. Well, well. You wouldna think it to look at it." And then, peering suddenly at the note-book I carried, and sucking the end of a stub of pencil, "What d'ye make it?"

- "Twenty-three point seven eight metres."
- "Fand! Well, let's measure it out again."

And he would begin again with his measuring stick and make it this time twenty-six metres. Then he would stand and look at the whale with his head on one side. "Well," he would say. "Let's call it twenty-five and a half." So, trusting in the judgment of his eye and disbelieving all sticks, tapes or mechanical contrivances whatever, he would moisten his pencil and write twenty-five and a half. But after a time he came to the conclusion that it was less trouble to accept our measurement and the measuring stick was put away.

After the two strips of blubber had been peeled off, the whale was turned ponderously over with block and tackle and the third strip, on which the carcass had been lying, was removed. Then the lower jaw came off and was whirled away to the bone platform. Now Hansen and Fritz and Hartvig had finished with that whale and, stripped naked of its blubber, it was pulled sideways across the "plan" and given over to the "lemmers," whose job it was to cut it into pieces for the bone platform and for the conveyors which tipped the meat and guts into the meat boilers. There were two "lemmers," enormous men who swore violently at their work in English because there are no words expressive enough in Norwegian. "Fand," meaning "devil," is about the strongest, and to the devil all Norwegian expletives whatsoever seem to be an invitation—usually to perform

some obscene act upon the person of the swearer or the sworn at. So the "leminers," perhaps sensing the inadequacy in this respect of their own language, swore in English and frequently said "Damn," which seemed to them, mild though it might appear to us, somehow more soul-satisfying than "Devil." The "lemmers" decapitated the whale first. Then they began to open its midriff and this was where Wheeler and I and our assistant did our stuff. Two of us advanced upon the carcass, flensing knives, as it were, at the "ready." We made a longitudinal cut in the belly wall in continuance of that made by the "lemmers" farther forward and another vertical one behind in the pubic region. cuts are not very easy to make for there is a considerable thickness of meat to cut through on the belly wall. Often the handle of the knife must be held horizontally at the level of the face to make the cut. Now when the whale was killed he was filled with air to make him float. He has also been decomposing gently since then so that directly the body cavity is opened there is an explosive outrush of gas. The gas stinks. If you cut too deep with your knife, as you often unavoidably do, there is an equally explosive outrush of liquid, yellowish-brown faeces and you become covered in this if you do not dodge it quickly, as you often unavoidably do not. This, however, was part of the job. When these cuts have been made the flap of belly wall falls down and out come the vast innards of the beast. A stomach like a balloon, round and hard and inflated if full; soft, flaccid and voluminous if empty-a stomach large enough to hold a man crouching. Intestines the size of motor-tyres, pale pink in colour. Fold upon fold of uterus billowing out, or immense testes like bolsters. Sometimes there was a foetus in the uterus and triumphantly we pulled out an almost perfect little miniature whale six inches, a foot, two feet, ten feet or nearly twenty feet long. At twenty feet it was near birth and more than three people could pull out. Then, sometimes, the Norwegians would laugh and crowd round to help

us drag the monstrous child away, digging their whale hooks into its soft, smooth sides.

This performance of opening the whale and slitting open the stomach or intestines never failed to delight the Norwegians, who loved to see us covered in yellow slime from head to foot. We slit open the stomach to look at its contents. If it was full the half-digested remains of the "krill" would come pouring out like corn. Or, if it was empty, gallons of water would come cascading out and run in rivulets down the "plan" into the sea. We would slit the intestines to look for parasites, letting the liquid faeces run out fanwise over the ground. We pulled out the ovaries, diving and plunging for them among the rubbery pale pink intestines and enveloping folds of uterus, in order to take them back to the laboratory for a count of the luteal bodies. We hauled out and measured the testes if the carcass was that of a male. All this had to be done rapidly while the carcass was being pulled steadily to pieces by the "lemmers." When we got to know them better they would laugh and wait for us, but at first they seemed to like to see us thwarted of an ovary, or baulked of a chance to examine the stomach, and would whisk things away and into a conveyor from under our noses.

Meanwhile Hansen, Fritz and Hartvig were stripping the blubber from another whale—this time a Finback, black above and white beneath, instead of slaty blue all over like the Blue whale. There is a curious asymmetry about the colouring of a Finback. His lower jaw is black on the left side and white on the right, while the whalebone plates in his mouth are all creamy white except those in the rear on the right side. These are black. No one knows why this is but it may be that he turns on his side when feeding so as to have the dark left side of his head uppermost and the pale right side downwards. So, leaving our eviscerated mass of flesh, we had to dash back again to the new whale to measure his length and the thickness of the blubber on the flank where

Fritz had cut it. When the new whale had been stripped of its blubber and pulled over to the "lemmers" nothing remained of the first one except a heap of flesh and guts dissected away from the long backbone. A crowd of men with hooks and knives cut up this heap into smaller and smaller pieces and loaded them into the buckets. When each bucket was full of a revolting, bleeding mass they tapped on the runway of the conveyor and, at that signal, up it went and was received by men waiting for it aloft. Sometimes the bucket was overloaded and spilt its several tons of guts among the men below. More laughter. About two hours from the time the whale was pulled up on the "plan" nothing was left but the naked backbone which was hauled like a giant snake up to the steam saws on the bone platform. Soon nothing remained but a few separated vertebrae of the proud Leviathan which yesterday went snorting through the ocean. After the second or third whale had been dealt with the "plan" became a shambles, a gigantic disordered open-air slaughter-house. The din was indescribable and the smoke of the sacrifice went straight up into the cold morning air or was whirled away towards the black and white mountains.

Suddenly there was the shriek of a hooter. It was breakfast-time. Flensing knives were put down and the men streamed back shouting and laughing to their barracks. Then the gulls which had been waiting in ranks upon the roofs of all the sheds descended screaming in clouds upon the suddenly hushed and deserted charnel yard. They bickered and yelled and fought among themselves and, on their revolting diet, they became fat, sleek and immaculate in their black and white coats as no other gulls on earth.

CHAPTER III

THIS LITTLE WORLD

WHEELER and I worked thus daily on the flensing "plan" among the muck and stench and clangour for seven months -a whole summer. The next year I worked with others for five months. In October, when we arrived in South Georgia, the snows were still upon the jagged mountains and it was almost always snowing as we crossed the harbour in the motor-boat at a quarter-past five in the morning. The snow made a crimson slush upon the "plan." There were not many days in October when the whaling station had enough whales to keep us going after breakfast-time. In November the patches of black rock upon the mountainsides began to enlarge and cascades of melted snow poured down the gorges. It snowed less often and the snows were short-lived, not lying but melting away in slush. Then towards the end of November and during December, which was mid-summer, the sun would rise above the bay, across which our windows looked, in a tenderness of pale pastel shades, first touching the snowy tops with fire, and shine all day benignly from a clear blue sky, like a day in early spring at home. The snow vanished from the lower slopes, all but a few scattered patches, and the skirts of the mountains bloomed a fresh green with moss and clumps of burnet. During these mid-summer months'there would be as many as fifteen or twenty whales a day to be dealt with at the whaling station—the catchers coming in with them one after the other from very early morning until midday. accumulated they grew old and rotten and arose in the water like gigantic balloons, discoloured and foul. birds feasted around them in millions. We were kept busy on the "plan" from five-thirty in the morning until six in the evening with half an hour for breakfast at eight, an hour for lunch at twelve and half an hour for coffee at three-thirty. Breakfast was an undignified meal. From the knock-off to the stand-to we had half an hour to get back from the "plan" to the Biological Station a quarter of a mile away across the bay, change out of our filthy overalls, wash, eat breakfast, change into our whaling clothes again and get back to the "plan." But often it was so warm at midsummer that we were able to work on the "plan" in the fore-noon with only a shirt and trousers under our overalls. At the end of January it began to rain and it rained throughout February. Heavy grey blankets of cloud sat upon the mountains, obscuring their upper halves and weighing upon the spirit. It rained continuously and remorselessly. Gouts and spates of water suddenly appeared, gushing in unaccustomed places down the precipices. On the "plan" everyone worked in oilskins and the paper on which we made our notes pulped. We worked silently and sometimes lost our tempers. In March it blew. It blew so hard that you could scarcely stand against it. It took the waves off the little harbour and blew them as rain across the buildings. It blew ships from their moorings on to the beach. Frequently during March the five whale catchers remained in harbour all day, moored to the jetty, because the weather made it impossible for them to go out. April it began to snow again, not lying much at first, but gradually lying longer and longer so that slowly the black mountains took on their winter white. Whales became fewer and fewer during these last months of the summer and the days when we had no work to do on the "plan" and when no flag went up on the coaling hulk became more and more frequent. Towards the end of April it was seldom that a whale came in at all, and early in May the whaling station closed down. Then all the men, except a winter maintenance party, went back to their wives and homes in Norway.

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The whaling station of the Compania Argentina de Pesca, an Argentine company with a Norwegian personnel, lies in a little circular harbour called King Edward's Cove, backed and ringed around by gigantic black mountains. The shores of the harbour are strewn with the bleached bones of hundreds of whales, relics of the days when the whalers used only the blubber and let the rest of the carcass drift away and rot. On one side of King Edward's Cove is a graveyard where are the humble and forgotten graves of whalers who, in years past, have died in this desolate spot nearly ten thousand miles from home. Here in this harbour Shackleton, on his last expedition, wrote "A lone star hovers gem-like above the bay," laid down his pen and died. A granite tombstone marks the spot where he is buried and a cross upon a cairn built by his shipmates looks towards Mt. Paget. Immediately behind the station a peak rises up sheer to about four thousand feet, dwarfing to insignificance the buildings and tall chimneys of the whaling station. Beneath it the whaling station lies like a little untidy township and to walk down the space of ground opposite the men's living quarters and around by the manager's villa is like walking through a Norwegian village except for a certain slovenliness and untidiness that seems to pervade the place.

Across the harbour, on a sandy spit running out into the bay, are the British Government buildings. This spit is called King Edward's Point by the British, to whom South Georgia belongs, but the Norwegians, who inhabit the island, persist obstinately in calling the point Sawodden—"the sheep point." Here is the "Discovery" Expedition's Marine Biological Station, the British Government Offices and the houses—two of them—of the British Government officials, attached to the Falkland Island Government. South Georgia is one of the Falkland Island Dependencies and is administered by that colony. When you are on King Edward's Point you are as much in England as you were in Norway over at the whaling station. The houses

have no eaves so that in winter the snow piles up to the gutters. They all have a glass conservatory which has to be roofed with corrugated iron in the winter to prevent the snow from breaking the glass, and they all stand with their backs to the bay and their fronts to the mountain side which rushes upwards immediately outside their doors, because if you face south to get the sun in the northern hemisphere, what more natural than that you should face north in the southern hemisphere? A Union Jack flutters from a pole. Here, in this square half-mile of England, live the magistrate and two customs officers. There is a policeman who wears a uniform when provoked and the rest of his time, most of it in actual fact, does odd jobs around the place. There is also a wireless station with two tall masts and a staff of three men.

Over at the whaling station the houses are built for snow and have wide eaves as in Norway. There are the long barracks for the men, there is a store and a cinema and a church, the most southerly church in the world with a cross upon it, but most important of all is the dominating yellow and white villa where the manager lives. He has a suite in the villa consisting of a sitting-room and a bedroom. Here is every modern convenience, including an immense electric stove which burns continually. The windows, covered with lace curtains with bobbles, are never opened and are largely obscured by a luxuriant growth of geraniums climbing up them, carefully tended by a silent, unobtrusive steward, who waters them continually. There is a horsehair sofa of the chaise longue variety, a table covered with old English and Norwegian magazines, and a piano, on which are three brass masts bearing the flags of England, the Argentine and Norway. Pictures of whale-catching steamships and one of Roald Amundsen adorn the walls. This chaste abode lives in my memory as the scene of many impromptu gatherings when Wheeler and I, feeling suddenly gregarious, said, "Let's go over to the villa." We would find the cheerful centre of this little world of horsehair and lace bobbles surrounded by his staff or by his whaling gunners. Or else alone, waiting, as it were, to receive cavalry. "Sit down, gentlemen. Sit down," he would shout, indicating the horsehair sofa, and the steward would bring in glasses clinking on a tray. The kind of evening we were in for depended on the company present. If it were the gunners we would talk whaling. Were the whales plentiful just now? No, they were not. I never remember anyone saying, Yes, they were. What was the weather like outside? We knew the answer to that one. It was—" No good. Too much fog. Too much wind." Every now and then, after a silence, someone would say, "Well—skål!" and, lifting his glass, bow to you over the top of it. But often the evenings went quite otherwise and the piano with its national flags would be made to tinkle some song we could all sing (hopelessly out of tune). The young man who was a clerk in the office would do his remarkable dance, following round the room a bottle poised on the end of one finger, and the manager would sit in the middle of the room beaming and saying "Help yourselves, gentlemen. Help yourselves," and presently would tell his famous story of the dentist who anæsthetized his patients by hitting them on the head with a mallet. Also in the villa lived the secretary, a little, slight, clerkly, sandy-haired man who wore glasses and, they said, "ran the station." He did this from an office adjoining. He used to laugh a lot, say very little and was no end of a one for billiards. In the billiard-room. which led off the manager's sitting-room, he clinked the balls tirelessly against one another in the evening. Then there was the chemist, who was large and stout and blond. He measured the specific gravity of the whale oil by floating hydrometers in it. He seldom spoke, but just stood there bowing stiffly from the waist from time to time in the German manner. Once I sang a music-hall song called "Don't have any more, Mrs. Moore," after a lot of whisky. I cannot sing at all and have great difficulty in keeping in the right key. Everyone roared with laughter and said they had never heard anything quite so bad in their lives, which I could well believe. But not the chemist. placed himself before me, bowed gravely from the waist and said, as though I were upon a concert platform, "You sing very good, I think, yes. Please to accept my congratulations." And once, also after a lot of whisky, he thought it incumbent upon him to escort me round the bay to the Marine Station. Owing to whisky I stumbled constantly on the way and, whenever I did so, often sprawling on my face, he took off his hat and bowed. And when I picked myself up, again I bowed in my turn. Thus we made our laborious, though polite, passage round the bay, pausing every few paces to bow stiffly to each other and say " Excuse me." There was also the doctor who had a surgery and hospital opposite the villa. His passion was music and he would button-hole me to discuss Beethoven and Brahms when all around the conversation was running on very different topics, so that we became a little high-brow island in the midst of a jolly low-brow sea. Occasionally, once a season, this company in the villa received the addition of a padre who, during the summer, made the rounds of the five whaling stations at South Georgia, curing souls. He came to Grytviken once a year, at Christmas-time, to take a service in the church. His presence made no difference whatsoever to the conversation in the villa sitting-room. He was the athletic, hearty type of padre, but whether he resembled the English variety of that species or not I never got to know. As spiritual pastor and master to the whalers at South Georgia his work must have been as hard as any man's on the island. Anyhow, he has little to do now, since three of the five whaling stations at South Georgia have, alas, closed down.

The men on the whaling station lived in long barracks in which were cabins with bunks one above the other as in a ship. They fed in long communal dining-rooms, and from the adjoining kitchens the clatter of pans and the shouts of the cooks continually reached one's ears. The men's washing flapped upon a hundred lines around these barracks and at six-thirty in the evening, after they had knocked off work, the men drew water in pails and did their washing, sitting on the steps of their barracks, or washed themselves, put on clean shirts and lounged pleasantly up and down in the evening sun. Or they punted a football about on the ground behind the station. Or they went to the reading-room and read old and tattered periodicals. Twice a week they went to the cinema, which was inaugurated during my first summer in South Georgia. Before its inauguration the cinema performances were held in the church, and twice weekly the church was packed to suffocation. On Sundays it was empty and now it was always empty. The whaling stations each brought down a stock of films which circulated around the island during the summer, for each station had its own cinema. The inauguration of the Grytviken cinema was conducted with ceremony. The manager made a speech and a choir, conducted by the chemist, sang Norwegian folk-songs unaccompanied. Perhaps I am not educated up to Norwegian folk-songs, but they met with deafening applause and the wooden building shook with the stamping of over two hundred sea-booted feet. So twice weekly in the new wooden cinema the whalers, old and young, in clean shirts and hair cut à la brosse, were transported round-eved to that silly, magical country of Puerilia that we all know so well, a land of grand and spacious apartments, full of cocktailshakers but no books, of enormous motor-cars and dream women in tea gowns, of cabarets and quick gun-play. wonder what it all meant to them. The manager sat in the front row of the balcony, clearing his throat loudly in the flickering twilight. We sat next to the manager, and in the front row also sat the higher officials of the station, the secretary, the doctor and the chemist. When

the lights went up they all grinned affably at us. In three or four tiers behind these dignitaries rose the lesser lights, the foremen, the gunners, when any of the catchers were in harbour, and the store-keeper. The old foreman of the "plan" was sometimes there, washed and polished and looking like a baptist minister in sombre black. (Once he said to me, "I says me prayers regular every night and have done for sixty-four years. Yessir.") Always he would lean across to us in the interval to tell us how many whales there were expected on the morrow. In the body of the hall sat the vulgar, the workers, the "unlettered hinds," many of them mere boys, chattering delightedly, scrapping together in the interval, applauding the hero tumultuously and jeering at the villain just as they do in the sixpennies at home.

Two other institutions in the whaling station deserve mention. One is the store presided over by the storekeeper who had kept a store in Canada, somewhere way back, and talked very fluent English with a strong Canadian accent. When you asked him if he kept bootlaces, or clasp-knives, or pull-overs in his store, he would say, "Why, sure. I guess we have the vurry thing." His store was a wooden building near the villa. It had that strange smell that stores have, compounded of leather, cardboard, soap and straw. Festoons of sea-boots and overalls hung from the roof, and all round the walls ran shelves in which was just the vurry thing in apparently endless variety. Or, if the vurry thing was not to be found on the shelves or hanging from the roof beams, it was certain to be in one of the many half-opened packing-cases on the floor from which straw packing protruded. A cap? Why, sure. Here it is. And what a cap! Or what a pull-over! What extravagant checks and exuberant patterns! And when I chose the most ordinary and the least remarkable, the store-keeper would say, disappointedly, "Why now, that ain't gay at all," and hold up something that made my head spin. The only article I ever bought from him which did not give entire satisfaction was a pair of heavy trousers. At the first wearing all the buttons came off and, being no needle-worker, I went about thereafter with five safety-pins between myself and the end of the world. I wore these trousers on the "plan" and got them very dirty, so I washed them, whereupon they shrank so that they came no farther down than my calves and showed white spaces of leg when I sat down.

The other institution I must mention was the butchery, a shed from which at times arose the scream of pigs being slaughtered. Poor pigs, that nosed and grunted freely around the station and became fewer and fewer as the summer wore on! In the butchery there ruled a strapping young man who came down to the "plan" every morning with a contraption like an ambulance stretcher. If a whale that was young and fresh was drawn up on the "plan," the flensers would cut large rectangular blocks of red meat from its back and pile them on the stretcher. When the stretcher was foaded, the butcher and one of the "plan" workers would carry it away. In the butchery the blocks of whale meat hung bleeding for some days until they turned black. Then they were taken to the kitchens and made into fried steaks. Whale meat is excellent food and, if well hung and properly cooked, it is like tender beef-steak. We ate it as often as we could at the Marine Biological Station, but in the hands of our very English cook it became either leather or cinders.

This hard-working, civilized little community, this little cosmos, of about four hundred men blossomed in the spring, grew to maturity in the summer and withered suddenly away in the autumn, leaving behind only a remnant during the winter. The whalers arrived by the company's transport, the *Harpon*, at the end of September, when the station burst into activity and became clangorous with preparations for the coming season. In the middle of the season the *Harpon* returned to Europe with the half-season's catch of

whale oil, usually unshipping it at Rotterdam and then going on to Norway. She returned to South Georgia in late February or early March and in early May took away all the whalers except the winter maintenance party. The Harpon was an old German passenger liner built by a famous Schiffbauaktiengesellschaft in Hamburg before the war. She had a very tall, thin funnel and when full of oil she rolled like a beast. Her captain was a short, stocky, silent little man and a tough egg. He was a strong man and made the inevitable enemies of all strong men. The following story is told of him. Alcohol was forbidden to all the members of the whaling community except the Manager and the Captain of the Harpon who had it, ostensibly, for entertainment purposes. Nevertheless, the whaling community obtained it by hook or by crook, usually by crook. Sometimes they made it by fermenting potatoes and got gloriously drunk on this foul concoction. More frequently they smuggled it. Now it became usual for the captains of ships to execute commissions for their friends when their ships went to Europe and when they returned to South Georgia cases of whisky would be smuggled ashore. One presumed that the authorities knew nothing about this. When the present captain took command of the Harpon, he also executed commissions in Europe for his friends, but handed to the astonished customs officers a list of everything he had brought with him, together with the names of those for whom he had brought it. In this way he showed that he was a strong man and this manner of showing it earned him enemies. On one occasion four discontented and alcoholic stokers burst into his cabin with a grievance and adopted menacing attitudes. The Captain thrust his hands into his coat pockets and stood with his legs apart, "Please go out again, knock on the door and take your caps off when you come into my cabin."

"See you in hell first."

Whereupon the "Old Man" took the four stokers, who

were each twice his size, knocked their heads together and dumped them in a heap outside the door-thus showing his strength. And this manner of showing it also earned him enemies. Especially the four stokers. When you went to see the Captain of the *Harpon* in his cabin, he mixed cocktails, strong man's cocktails, at whatever hour of the day you went there and, raising his glass, would say "Skål" and drain it silently, immediately helping himself to another. It was understood that if you went visiting on board the Harpon you seldom got away within three hours and sometimes spent the night there. More than once I have been on board the Harpon to call for a moment on the Skipper and returned from having seen the Skipper the following morning. During the whole of one's visit, or most of it if one stayed the night, one's host would continue to put back strong man's cocktails in silence, the silence of a strong man putting back cocktails, quietly watching his guests succumb. Not the slightest effect was discernible upon him. My last recollection of this formidable little man was of him calmly and phlegmatically pacing the deck of his ship while two whale catchers made strenuous and, for hours, vain attempts to save her from going on the beach of King Edward's Cove whither a raging March gale was driving her.

Besides the Harpon there was the Tijuca, an old three-masted barque which had once been a French corvette. She was a lovely and shapely ship and had a sweeping prow adorned with scroll-work which told what a proud ship she had once been. In her saloon, the deck-head of which was so low that I could not stand up beneath it, were solid mahogany furniture and swinging brass lamps and, in an adjoining apartment, a vast bed with lace curtains where the commander of this proud ship slept, surrounded by alluring cuttings from South American magazines. The Tijuca went two or three times a season to Montevideo. The fury of the "roaring forties" meant nothing to her or to her captain. She took up to Montevideo bags of guano

made by drying the residue from the meat and bone boilers -a process which was carried on with an appalling stench in huge rotating rollers in a shed behind the "plan." When the Tijuca returned from these trips to Montevideo she was greeted with tumultuous cheering, for she came back with contraband. No matter how vigilant the customs officers might be, there were always many men missing from duty for several days after the arrival of the Tijuca. One or two of the "plan" workers were almost always absent from the "plan" for at least a day, and one morning, after the arrival of that heaven-sent ship, one of them woke up to find he had been sleeping the sleep of the just inside the body cavity of a half-dismembered whale, a nice, warm, though slightly odorous bed-chamber. How the life-giving, infinitely desirable elixir escaped the allseeing eye of authority no one could tell. Sometimes it was found boarded up under decks, sometimes buried beneath the coal for the donkey engine, and once some men were caught passing it, one bottle at a time, from the ship to the shore on a line under water under cover of darkness. However much was discovered, some of it always reached those it was meant for. At the end of every season the Tijuca, loaded with guano, took back the Argentine whalers, among whom were the fat, rosy blubber cutters. They made a voyage of peril, sleeping on the deck or in the hold among the guano bags, in that stout old ship that rolled as no other ship ever rolled.

Work was hard and the hours long at the South Georgia whaling stations, twelve hours a day. Everyone who worked on the "plan," including the skilled flensers and the blubber cutters, was signed on as a labourer at a pound a week. All hands received a proportionate bonus for every barrel of oil produced during the season, so that in a good year one made a fair amount of money, but in a bad year one made correspondingly little and, on days when there were no whales, one did a labourer's work, even if one were

a flenser or a lemmer, hewing stone from a quarry, carting coal along the tip-truck railway, or shovelling rubbish out of lighters into the middle of Cumberland Bay. That at least added some variety to life. But if one worked in the smithy, or the joinery, or the carpenter's shop, or on the floating dock, or if one riveted plates, or stoked furnaces, or did any of the jobs on which the daily life of the community depended, then the monotony of life weighed heavily upon one. A few old men on the station had been in South Georgia for years without returning to Norway, and there was one old shell-back who had been there continuously for nineteen years, during the whole of which time he had never received a letter. But almost everybody was glad to go home at the end of the season. After six months of South Georgia one longed to be on his farm near Sandefjord or Tønsberg, to hear the voice of his wife and to see how his children had grown. Or one longed to get blind roaring drunk and sleep thereafter for five days, only to wake up and do it again. Or one longed for the tuning up of a great orchestra, the rap of the baton upon the rostrum, and then Fate knocking at the door. Or one longed to sit in the sun with his pipe in the evening watching the sun go down behind mountains and quiet waters. Or one just longed.

CHAPTER IV

PURSUIT

THE whale catcher Narval lay at the jetty, her mooring ropes creaking gently and the water from her condensers making a rushing sound that was unkind to the dark stillness of the night. Her pumps whined and her foretruck moved very gently to and fro among the stars. From the adjacent whaling station a few lights winked and occasionally the clatter of iron rods came from the furnace room. When I went on board with my kit-bag and my camera, clumping over the steel decks in my sea-boots, the Narval was deserted. I clattered up a companion ladder into the small cabin under the bridge and, dumping my kit-bag on the deck, lay down on the narrow settee. The atmosphere was stifling and felt as though the little cabin had been lived in by dozens of people for weeks and none of them had ever washed. Against one bulkhead stood an enormous wireless transmitting and receiving set, a confusion of bulbs and switches which my mind made no attempt to encompass. Besides this, which seemed almost to fill the cabin, there was a table with some old magazines and a calendar advertising tooth paste from which a young woman smiled down dentally at me. Near the wireless apparatus a door led into another much smaller cabin on the starboard side where the gunner slept. I looked in and saw that it contained a bunk, with no bedclothes but several rugs on it, some heavy coats and an oilskin hanging on hooks, a basin and mirror and a photograph of the gunner's wife. It did not as yet contain the gunner himself, since he was "up at the villa" calling upon the manager.

The pumps whined, the condenser water rushed and presently I slept.

I was awakened by the gentle heaving of the settee

beneath me and the dull throb of engines. The stars had paled and the mountains above Grytviken were receding against a pastel sky. They slid past and slowly fell away and soon we were bucking in the open sea. No motion is quite like the motion of a whale catcher. She does not roll, she bounces. She does not pitch, she bucks. She dances and kicks her heels. She wallows so that the open steel decks at her waist are always awash. Now in the lovely, cold, clear, blue morning she was dancing a jig. I went out on deck, feeling that the cabin with its unwashed smell might presently have an unpleasant effect on me. Also because it was no longer possible to lie on the settee. In the near distance stood the black and white mountains of South Georgia, their skirts painted with mid-summer greens and their tops white and flashing under the clear blue sky. All along the coast glaciers came down to the sea, presenting to it great jagged cliffs of ice and long, immobilized streams that poured down from the upper snows. Out to sea stood two tabular icebergs, looking infinitely forlorn and lonely as icebergs do. The foam leapt about their feet. A thousand sea birds crowded in our wake with a leisurely swooping, or a hurriedly fluttering, or insect-like skimming flight.

We danced on thus for three hours and the mountains grew less upon the horizon until they were a tooth-like row forty miles away. Then it was breakfast-time and I clattered down the steel companion ladder to the mess-room which, with the galley, was below the cabin where I had slept. The little table had room for six and one sat at it and ate at it with difficulty because space was so cramped and because of the bucketing motion of the ship. The gunner, the mate and the chief engineer were already there eating porridge and holding their plates up underneath their chins because, if the plate were placed on the table, the milk ran over the edge. They all said "Morgen" to me as I made my awkward entry and squeezed myself in

among them. In the galley a young cook-steward ladled out porridge from a pot and bore the plate towards me with the poised swooping motion, bent at the knees, which becomes necessary and habitual in a heavily-rolling ship.

The gunner looked like a farmer. He had, it seemed, inserted his enormous bulk into the narrow space between the table and the bulkhead with a shoe horn. I looked at him as he balanced his plate of porridge and ate loudly therefrom, wondering how he would get out again. When he had finished he waved his plate in the air and called out "Steward!" and the steward came and took the plate from him, substituting another on which were four white fish-balls -fiskeboller-done in milk, a particularly Norwegian dish. When the gunner had finished he put both enormous hands on the fiddles and hunched his shoulders. He looked down at me and roared with laughter. Or he seemed to look down at me for actually I am as tall as he was, but his immense breadth and his way of hunching his shoulders with his arms straight and his hands upon the fiddles gave him the appearance of being above me.

"Ja, Ja!" said he. "So you wish to see a whale caught -eh?" He did not say "my little man," but it was there. "Well, we must see what we can do. You are not seasick? That is good. It is a bad sickness. Ja, Ja!" And he burst into laughter again. Then he forgot all about me and started to talk rapidly in Norwegian to his mate, who was quiet, dark and not at all Scandinavian in appearance. Indeed, he looked more like a Frenchman. The chief engineer was a horny old man who said very little but "Well, well. Ja, Ja. Well, well," and always had a piece of cotton waste with him, even at meals, on which he wiped his hands. When my fish-balls were put in front of me I said "Ah! Fiskeboller!" which seemed to put everybody at ease for they all laughed, including the steward, who leaned in the doorway of his galley and joined in the conversation, frequently interrupting the gunner. The gunner takes his own mate and steward with him whenever he takes command of a new catcher, so that these three in the Narval knew each other well. Restraint disappeared with the fish balls and, when I had finished and extracted myself from the table, there was much laughter at my efforts to get my booted legs out from under it. And there was such mirth when I said "Fand!" that I returned to the outer air feeling that I had been a success. Which was vanity because a fortnight later, when I passed by the Narval as she lay at the jetty, the gunner and his mate gazed down at me from the bridge without recognition, having forgotten my existence.

On the bridge a young man stood at the wheel, bending his knees to the motion of the ship and gazing with keen eyes over the blue, white-flecked, limitless spaces from under a leather fur-lined cap. The ear-flaps of the cap hung down on each side of his face like the ears of a spaniel. He took no notice of me when I came on to the small space of the bridge, bending double under the canvas dodger in order to do so. I stood there for some time watching the men on the gun platform in the bows loading the harpoon gun. It was a deadly, vicious-looking instrument, a short cannon of three inches bore mounted on a swivel which turned easily. Two men rammed a harpoon down the muzzle. The harpoon was like a spear some six feet long with a swivelled head. Three barbs on the swivelled head were kept in place by lashings which, when the harpoon struck, would break so that the barbs would stick outwards and prevent the withdrawal of the harpoon. On the front of the head was a pointed conical bomb which would be exploded inside the whale by a time-fuse. A long line was attached to the harpoon. A length of this was coiled down on the platform on which the gun was mounted. The rest, of greater thickness, ran up the foremast over pulleys, over the drum of a winch on the fore deck and down into a hold. This was the harpoon line—the fishing line—and the mast was the rod. They rammed the harpoon down into the muzzle of the gun until only the swivel head showed. Then they turned the gun round, opened the breech and pushed in a cartridge. The gun was loaded, pointing menacingly at the dancing water, a thing of death. Silver spray flew over it.

"No good!" said the young man beside me, suddenly and surprisingly.

"What's no good?"

"That island! All of it." He made a movement with his head in the direction of South Georgia far away on the horizon. "Hell of a place that! Joost dam rock and snow." I have been there ten years. A long time, eh?"

"It's a long time to be at this game. But you get home in the winter?"

"Oh, ja. Oh, sure I get home. My wife—she live in Sandefjord. My kiddie—he go to school now. Sure I get home. You been to Norway?"

"Never."

"It is God's country. One day I leave this bloddy island and go home. Yessir, ten years. But soon I go home!"

Then suddenly there was a cry from the barrel at the mast-head.

" Hvalblast!"

I looked and saw nothing. Just dancing sunlight on wastes of water. But the young man at the wheel had seen it. Even while he was talking his keen eyes had been alert. "There, to port," he said. I strained my eyes to port and there, presently, far off there rose up three little plumes one after the other. They hung for a moment and disappeared. Hard a-port. The little ship turned, heeling over sharply, and was off on a new course, dancing gaily in the path of the sun, the smoke streaming from her funnel. Then again ahead the plumes rose up, nearer this time and larger. The ship danced on. The gunner came up on the bridge and

the third time they blew he looked at them through glasses and said "Blåhvaler—Blue whales." You could see now, after the blows, the three dark backs, curving over slowly like three great submarine unhurrying wheels. They turned over one behind the other and immediately the sea-serpent legend became understandable to me, for they looked for all the world like three parts of a continuous whole. Then they disappeared and, for what seemed an eternity, my eyes wandered about the empty sunlit sea. Spray flew in showers across the gun platform. Foam leapt about the feet of an iceberg. The mountains of South Georgia gathered to themselves a mantle of cloud and drew it about their shoulders. "Sagte!—slow," said the gunner, and we waited, wallowing and uncertain.

"Yes," said the young man at the wheel. "Ten years. I have been in a kokeri (floating factory), too, in the South Shetlands. There it is light all the time so we work always. Always. But the weather is not so bad as here. You can sleep in your watch below. But often in the ice the lines and tackles they freezes up. Often you must cut the ice off the bow. Too much ice too heavy for the damn ship and she turn over. No good, eh? But here it is the worst. More weather. More sea. Longer to tow. Harder work. But soon perhaps I go home and live in Sandefjord and go fishing in the summer."

Suddenly there was a whistling rushing explosion which made me jump. Not a hundred yards away a great burst of spray shot into the air. Then another and another. They went drifting away on the wind threaded by arching rainbows. After each a great flat grinning head with wide open blow-holes was for a moment visible, followed by a broad curving back, turning and turning. There was a whistling intake of breath and each vanished, leaving upon the water an oily smooth place to mark where it had been. This was the "slik." One of them had fouled the water with a yellowish-brown stain.

"Fuld fart forover—full speed ahead!" And away we danced again after them.

But now they were scared and vanished again for nearly ten minutes.

- "They will come back," said the young man at the wheel, "they've sounded. They've gone two hundred fathoms, I bet."
 - "As much as that? I doubt it."
- "Yes? I have been whaling ten years. I know how deep they go. I have seen whales take out two or three hundred fathoms of line straight down. I know."

He looked at me and laughed. "Discovery! What you discover?"

The gunner walked down the narrow gangway which led from the bridge to the gun platform, spanning the fore deck. He walked easily and lightly down it, and I followed clutching at the stanchions and wires all the time to steady myself. At the foot, near the gun platform, I braced myself with my camera ready, my body against one stanchion, my foot against the other. The gunner stood behind his gun, immense, impassive, calm, doing his daily job. As the whales came up ahead with their three whistling bursts of spray one after the other, he signalled calmly to the bridge, now a little to port, now a little to starboard. Once they came up close to the ship on the starboard side with a whistling explosion and I could see in that instant every detail, the vast grin, the grid-like plates in their mouths, the little knowing eye at the corner of the grin, the wide open blow-holes and then the great curving back. They were gone, leaving three oily patches, and the spray from their blow, which is sea-water from the back of the throat, mucus from the nasal passages and condensed vapour, drifted over me and over my camera. It stank, the stink of whales' breath, hot and whaly. "Fand! No good," said the gunner, "Ganske sagte-very slow!" and for a little we wallowed. There were moments when I and my

camera hung perilously between the sky and sea like the thief whom Theseus threw over the cliff, but who was rejected by both earth and sea as unworthy of either.

Suddenly the three broad backs burst through the dancing water immediately ahead. The gunner swung his gun. There was a deafening crack and my ears sang. The black streak of the harpoon flying out. The coiling whip outwards of the line. And then a cataclysmic, hurtling, headlong rush down. Got him! Down went the line, rattling out, and down, down, down. The chief engineer was there on the fore deck, wiping his hands on a piece of waste and saying "Well, well. Ja, Ja. Well, well." There was the steward, a ladle in his hand. There was a fireman in a peaked cap, singlet and sweat cloth. Though this killing was their daily job, it never lost interest and all hands were always on deck at the kill. It meant more money, anyway, in the pockets of every man. And Jonassen was the best gunner on the station. There was a sudden strange silence, a suspension of activity. The Narval wallowed, the waves flopping and flapping against her sides, and the harpoon line no longer running out of the hold but hanging taut from the bows, straight up and down.

Then began a thrashing disturbance in the water a mile away to starboard. The terrible, lonely and titanic death struggle began. Dark against the lashed smother of foam there wheeled and thrashed now a forked tail, now a pointed head still grinning; now a ribbed belly showed, now a pointed flipper, raised on high, smacking down upon the water. Then a red fountain burst upwards, and another. He was spouting blood. It meant the end. "Ah!" they said on the fore deck. They were reloading the harpoon gun. The smoking breech swung open and the empty cartridge was removed. The gunner turned to me.

[&]quot;You got a picture—ja?"

[&]quot;No," I admitted. The loud crack of the gun had made me pull the trigger too late. When you take photographs

of a whale hunt you need to be as calm and collected as the gunner himself. "No matter," said Jonassen. "We will get some more, I think."

Still the Leviathan fought for his life, his harmless, free and joyful life that had suddenly been struck from him at one dreadful blow. His comrades had disappeared and he fought his battle out, deserted and alone. He whirled in a fury of crimson foam. The winch rattled and the slack harpoon line came in until it curved to him across the mile of water. Now it grew tight and pulled him. He drew towards us and suddenly he was still, his ribbed belly upwards, the crimson sea where he lay suddenly calm and a cloud of birds hovering above. In the distance a solitary iceberg, remote, forlorn and lonely, stood off and watched him die.

There was something strangely impersonal about him when they got him alongside. It was hard to believe that he really was once a huge and powerful animal, forging through the water with vertical sweeps of that great forked tail. He became just one of the shapes that waited for us every morning at the "plan" and which became several times daily before our eyes a scattered mass of meat.

With a long lance they punctured his ribbed under-surface and then pushed into the wound the nozzle of an air pump on the end of a pole. Thus they blew him up with air to prevent him from sinking and plugged up the hole where the nozzle had been with a piece of tow. Then they jabbed into him a flag on a long staff. On the flag were the letters C.A.P. (Compania Argentina de Pesca). So we left him wallowing, the flag pole wagging from side to side in the swell and, as we drew away, off on the chase again, the sea birds gathered in a cloud above him. Soon he was just a shape in the water and presently you could only mark the place where he lay by the cloud of birds.

Somewhere in that broad stretch of sea the companions of our victim must still be. Probably by now they had

forgotten the sudden and inexplicable disaster which had overtaken their brother and were snorting and blowing through the waves as gaily as ever. We must find them. The mountains of South Georgia had shrouded themselves from view and, with that suddenness which is characteristic of the weather in those seas, the beauty of the day had disappeared. A grey mistiness overspread the sky and an icy, bitter wind had arisen. It whipped the sea into short, sharp waves which flew in bursts of spray over the bows of the Narval. I went into the cabin to get a leather waistcoat out of my kit-bag. The gunner was at the wireless set, calling the whaling station.

"Hallo, Grytvik. Hallo, Grytvik. Hallo, hallo, hallo. Narval. Narval." And then a (to me) incomprehensible rush of Norwegian, spoken with great rapidity into the instrument. It was his noon report. He was telling them that he was forty-five miles east of Cape Vakop and had taken one large bull Blue whale, which he had flagged, and was now off after more; that the weather had worsened and was blowing sharply from the south-west. Then came a crackling and (again to me) incomprehensible reply from the metal throat of the loud-speaker.

"Hallo, hallo. Hallo, Narval. Hallo, Don Miles. Hallo, Orca. Hallo, Morsa. Grytvik. Grytvik. Grytvik." The brazen voice ran on. Then Jonassen rose from the instrument. "Ja!" he said. "Orca has one Fin. The others have nothing yet. So far we win. Ja."

In the afternoon we came upon the other whales. At least we came upon two other Blue whales and we chose to think they were the companions of our former victim, though there was nothing to indicate whether they were or not. The young man at the wheel had been relieved and his place had been taken by a giant with an immense red beard which spread all over his chest. He said never a word and took no notice of me at all. In the distance every now and again, ever nearer, the two whales shot up their

plumes of spray against the grey sky. We gained upon them, but we were not alone. For on our port bow was another catcher, on which all our eyes were turned. She was far off and it was at first difficult to make her out. She was a coal-burner since, from her funnel, a long trail of black smoke streamed away, making a bar above the horizon. "A Leith boat," said the gunner. "Ja! A Leith boat. Only the Leith boats burn coal." And he looked at her through glasses. She was running down the same whales as we were following. It would be a race. As she drew nearer and converged upon us, she became more clearly visible so that we could, with glasses, make out her name, printed in large black letters on a white ground across her upper-works in the way that all Leith boats wore it. Shouma. She dipped and plunged. The foam rose in a splendid curve at her bows where, minute and venomous, we could now make out her harpoon gun pointing downwards at the water. The black smoke streamed away from her funnel. The whales were close ahead now, their broad backs visible as they rose. Go it, Narval! We sped dancing through the water and the spray slashed over our bows, icy cold. The gunner went down the gangplank again to his platform and I followed, bracing myself again against the stanchions. The wind was so cold that it seemed to burn my fingers as I held the camera. On the ever-nearing Shouma we could see the small dark figure of the gunner also walk down his gangplank to the platform. With a whistling explosion the two whales broke surface on our port bow not two hundred yards away. And from the starboard bow of the Shouma they were also not two hundred yards away. Their great backs wheeled over. "Ganske sagte—very slow!" Then there they were bursting up astern. They had doubled back. "For Fand!" said everybody. "Hard a-starboard!" and we spun round like a saucer, heeling over. I clung to the stanchions like grim death. The Shouma went hard a-port and swung round

away from us, heeling over too, and the heavy trail of her smoke bent itself into a loop. The whales came up again farther ahead. "Fuld fart forover!" Narval! "Fuld fart forover!" Shouma! Full speed ahead. And the two whalers bore down upon each other. Then suddenly Jonassen swung his gun to starboard. The small crouching figure on the gun platform of the Shouma swung his gun to port. Where the two guns pointed, sure enough, the two whales burst up, tall columns of spray rushing up from their heads like steam from two locomotives. The guns cracked out together and the harpoons flew out and down to meet each other, whipping out their lines. The two catchers, shooting simultaneously, were within a hundred yards of each other. The Narval had hit and her harpoon line rattled out and down. Both ships paused wallowing. But the Shouma had missed. Jonassen straightened himself at his gun. "Again we win." And he waved across to the other gunner who waved back. The Shouma hauled in her spent harpoon. We could see the figures of her men reloading the gun. Then, with a shout and a farewell wave, she was off again. Her screw churned up the water at her stern and she made a lovely sweeping curve across our bows as we stood with our harpoon line still running She was off after the other whale.

"God fangst! Shouma."

This whale did not fight. He just went down and down. And then as the *Shouma* crossed our bows, his bluntly-pointed nose pushed quietly up through the water ahead. He was dead. They hauled him close, and as the *Shouma*, triangular now in stern view, diminished to port, they pumped him up with air. Through hawse-holes they made him fast by the tail to the port bow and, with a flensing knife, cut off his great triangular tail fins. They flopped down into the water, a legacy for the birds. Then we were off again, listing to port a little, with the great, ribbed, shining, balloon-like carcass billowing through the water

beside us. The daylight was fading. There would be no more whales to-day and we were on our way to pick up our earlier victim. Though the wind still blew icy and strong, the weather had cleared and the mountains of South Georgia were visible again to southward, darkling and sullen. At the western end of their long, toothed ridge the sun sank behind dark clouds, sending out bright rays, and in the east there shone a pale daylight moon. To the north the Shouma was only a pencil of smoke poised on the horizon.

Whale number one lay as we had left him. Far off you could just see the flag wagging and fluttering in the distance and the cloud of birds about him. As we approached they rose up screaming. We made him fast by the tail to the starboard bow and then, followed by our attendant throng of birds, we turned westwards towards the mountains.

At the wheel the man with the beard had been replaced by the young man who had been whaling ten years. The flaps of his fur cap hung down like the ears of a spaniel.

"You like this?" he said. "How you like to do it every day? Not so much damn fun, eh? How you like to do it every day for ten years? No good, eh? When I go home to Norway I say 'Olafsen! You are a bloddy fool. This is the last time you go south.' But here I am again. Ja! Every year."

He said more than that but I was not listening for, on our port quarter, there rose up two gigantic, black, triangular fins like knives. The water where they cut the surface flew outwards fanwise on each side of them. "Good God! What are those?" I said.

The young man turned his head for a moment and saw them.

"Those? Spekkhugger. Killers."

They were making after us, making after the carcasses we towed. As they gained upon us with rushing, swooping dives through the water, we could see their black shapes beneath the surface. They made one or two swift sweeps

towards the mouths of the dead whales from which the tongues lolled out. There was something terrible and sinister in the rush they made, the tigers of the sea. Then, as suddenly as they came, they vanished and we saw their knife-like fins no more.

"They go for the tongues," said the man at the wheel. "If you was in the water they would go for you. Sure they would!"

The dark mountains drew up to us and we crept home close in shore. The sky turned from pale blue to indigo and the clouds vanished from it, leaving it free for the stars, which came out one by one. Here one above the mountaintops, there one out to sea, poised above an iceberg, until like dust they hung over us. The moonlight increased upon the water and upon the never-moving rivers of ice that wound from the peaks down to the sea.

CHAPTER V

SHOT AT DAWN

CARLSEN had been sealing for years. No one in South Georgia knew more about the elephant seal or knew its rookeries better than this little wizened old man, or had more knowledge of the dangerous and rocky coasts of the island. Therefore, at the beginning of every season, in September, when the seals hauled up on the beaches to mate, and again at the end in March, when they reappeared on the beaches and lay moulting their skins, he took the Don Ernesto sealing around the bays and inlets. The men on the station were eager to go sealing with Carlsen because he knew more about the job than anyone else and got larger catches.

Except Jansen. He may not have known so well as Carlsen where to find the seal rookeries, nor have acquired such expert knowledge of the rocky coasts, but what he lacked in knowledge he made up for in daring. A great, shaggy man, he cared not a damn where he went with the Diaz, and took her in among the needle-like rocks and racing channels with her ponderous cargo heaped upon her decks so that she wallowed waist under. But the men on the station were less keen to go with Jansen because he drove them, making the work unnecessarily hard, working all the small and scattered rookeries on difficult beaches.

So twice a season Carlsen took the *Don Ernesto* and Jansen took the *Diaz* sealing round the island and there was rivalry between them.

The elephant seal carries a fine thick layer of blubber under the skin. This goes into the boilers with the whale blubber and gives an oil indistinguishable from and every bit as good as the best whale oil. The elephant seal is almost extinct on all the sub-Antarctic islands where it once abounded except South Georgia because the sealers have, in years past, hunted it so ruthlessly that they have all but exterminated it. However, in South Georgia it still abounds and is, if anything, on the increase because the Government regulates the hunting. Only the bulls may be taken and the island is divided into four regions. Three of these are worked in rotation, two at a time, so that there is always one lying untouched for a season, and in the fourth region no hunting is ever allowed so that it is a reserve. So that the elephant seal flourishes in South Georgia, and if you stand upon the cliffs on a still day the sound of their belchings comes up to you from the beach below with the surge of the Atlantic.

The Don Ernesto had been a whale catcher, one of the fastest in her day, capable of twelve knots. But her day was over. It was a pre-war day. She was distinguished by having twin screws and could turn easily. In those far-off days, which the swift development of whaling has made to appear like ancient history, she was used for chasing the Humpback whale, which used to be found close inshore around the coasts of South Georgia. But the Humpbacks disappeared, as they do if hunted too much, moving off elsewhere, and the Don Ernesto, being neither fast enough nor powerful enough to hunt Blues and Fins, now instead went sealing with Carlsen twice a season. During the rest of the time she was moored to a buoy in King Edward's Cove, sleeping the sleep of an old ship with a cap on her funnel.

Now at dawn she stood off the beach in the Bay of Isles, with all her deck space boarded in ready to receive the slings of seal blubber when they should come on board. Carlsen on her little bridge surveyed the beach through glasses. "Plenty seals, I think," he said with satisfaction, and at his order, shouted down from the bridge to the foredeck, they lowered an anchor, an old-fashioned kedge anchor, with a plop and a rattle of chain into the sea. Then

they swung a "pram" over the side and we rowed ashore. A "pram" is a shallow boat shaped rather like a saucer which the Norwegians use for landing on steep and difficult beaches. Since it is so shallow it just perches on the surface of the water and is thus very easy to manœuvre. That is what the book says but I may remark, in parenthesis, that I find a "pram" quite impossible to manœuvre for directly I take the oars, which I never do if I can help it for fear of making an exhibition of myself, the boat spins round and round in circles like a top. In actual fact it takes practice to manage a "pram" so that my failure to do so is not quite so idiotic as it may appear. However, the young Norwegian who rowed us ashore in the Bay of Isles had no difficulty and the boat, weighed down with people, skimmed over the water.

In the bows was the bo'sun, a huge shaggy man nearly seven feet in height. He carried on his knees an old Mauser rifle. There were four men in the "pram" besides the man who was rowing, myself and the bo'sun and a small boy. They carried sharp triangular sealing knives in wooden sheaths. Two of them I recognized as the fat, rosy Argentine blubber cutters from the "plan." They had been sealing for twenty years and were the best seal skinners on the island. They chattered to each other in Spanish and laughed with their beady black eyes. They sat on the floorboards side by side and leaned back luxuriously against a thwart as though they were in a Rolls-Royce, smoking Argentine cigarettes, "Quarente-Tres," from which there came to me on the wind a Continental smell, a smell of Café-Bar. Then there were two Norwegians, one of whom was, like David, ruddy and comely. On the way out from Grytviken we had all stood in the engine-room hatchway of the Don Ernesto to get out of the way of the biting wind and this young man had played a mandolin and sung, in a beautiful baritone voice, a song about a lady called "Isabella." What strange lives some of these young Norwegians

live! This one had been to the University of Oslo but got tired of learning and went whaling instead. Then he got tired of that and went to work on a sheep farm in the Argentine, working eighteen hours a day at shearing time. Then he got tired of that and went whaling again and worked twelve hours a day all the time. Now he was tiring of that and wondering what to do next. Then there was the man who was rowing and he was very different. He was like a drawn wire, all sinew, and he laughed continually and, apparently, about nothing. In spite of the biting cold he had, under the scaling overall that everyone wore, only a thin shirt open all the way down the front. Unlike the others he wore nothing on his head though the wind was such that when I took off my fur cap the skin of my scalp seemed to contract as though a steel band had been clamped round my head. It was blowing so hard that angry bursts of icy spray flew intermittently over us and patches of driven spume went furiously skidding away across the bay. Nevertheless the young Norwegian made the boat race across the water with powerful strokes of his sinewy arms. Lastly, there was a fair-haired little boy of sixteen whom the Argentines called "Chiquito." He sat in the body of the boat on the coils of wire and wooden toggles we were taking ashore to make blubber slings and he held a loaded air gun to the peril of all. He said he wanted to shoot a "Shag"a kind of blue-eyed cormorant which abounds in South Georgia. I was Chiquito's greatest joke and when, with my hand, I mildly turned away the muzzle of his air gun from my stomach, he bubbled with laughter and turned it back again. I was therefore not sorry when the "pram" grounded upon the shingle of a steep beach and we leapt out into the shallow surf to haul her ashore.

The Bay of Isles is like a hundred others around South Georgia. There is a long sweep of steep shingly beach, littered with the old dried skeletons of seals slaughtered in former years, and perhaps the bleached skeleton of a whale. Behind the beach there is a wide sandy plain covered with a coarse grass which grows in great tussocks or clumps. Through this plain runs a fresh water stream from a glacier which can be seen a mile or so inland. The great black mountains sweep up from the tussock plain to snowy crags. Upon their skirts the tussock climbs up a little way as low foothills. Then it gives way to moss and burnet. Farther up the burnet gives way to moss and the moss to lichens and at about a hundred feet the lichen gives way to steep scree and rock. Then there is no more life except for a poised bird in the air and no sound but rushing waters and the tiny whisper of stones loosened on the screes. Perhaps the surge of the sea comes from afar and the distant belching of elephant seals.

It was March and at this time of year the seals lay about the beaches, or inshore upon the plains of tussock grass, moulting. The cows and bulls separate at this season and the bulls lie apart from the cows in groups of up to a dozen or fifteen, ignoring the cows as though no such thing had ever entered their heads. It is the fresh water they like most and, during the month of March, the fat old bulls succeed in lolloping far up these streams as much as a mile or a mile and a half inland. In the spring sealing is easier than in the autumn because then they are all on the beach, each bull with his harem of cows, and do not have to be driven, but in March they must be driven down to the beach where they are killed and skinned.

As we hauled the "pram" up on the shingle two yearling pups, lying half in the water and half out, turned upon us their round, lambent, wondering eyes, the velvety skin at their necks creasing softly as they turned their heads. At this age they are charming and have a soft, velvety puppy coat and round sad eyes like saucers. But as they become older they grow revolting and gross, lying about in heaps in their own ordure stinking. Gummy tears run from their eyes. The pups opened their mouths at us but made no

sound until Chiquito, obeying that primitive instinct which prompts men to torment the helpless, threw a stone and hit one of them on the back. Then they both threw up their heads and emitted a high-pitched crackling bark—"Ack. Ack-Ack-Ackack." A solitary penguin which, nose in air, had watched us disembark upon his beach, moved haughtily two paces to the right on hearing this unscemly noise.

The six of us, the four Norwegian and Argentine sealers, myself and Chiquito, spread ourselves out along the beach, each man armed with a long bamboo pole, except Chiquito, who had provided himself with a length of lead piping. Then we advanced into the tussock, leaving the bo'sun behind on the shore with his Mauser rifle. The tussock was sometimes waist high, sometimes shoulder high, and soaking wet so that our legs were soon drenched. Often the spaces between the tussock had been beaten flat by the bodies of seals so that the clumps stood up like great turk's heads. places the tussock gave way to an open moss-covered muddy space in which we sank up to our ankles and sometimes halfway up to our knees. Often in stepping from tussock to tussock across boggy or muddy hollows I stumbled. Once when I fell a shape rose up on the other side of a clump with a belching roar. I had disturbed a cow seal in the midst of her slothful slumber. When I stood still and looked at her she settled down into the mud again with a long and heavy sigh, instantly forgetting me until I moved again when she turned once more her bleary, myopic eyes upon me and opened her mouth. But no sound came and moving off I heard her heavy sigh as she resumed her slumber.

I found them first. The place where they lay had been beaten flat by their cumbrous bodies into a smooth muddy basin through which trickled a thin stream of water, stained bright brown by their ordure. There were about fifteen old bulls and they lay together, some on top of others, in an obscene and slothful heap. Their eyes, closed in a mindless, senseless, dreamless slumber, ran tears down their whiskered

faces—the faces of very old men. Their bodies were covered with scars won in sexual combat the previous spring and, since they were moulting, the skin hung in strips from them as though they were stricken with a mange. Streaks of yellowish-brown excrement ran down from those above over the bodies and heads of those below, some of whom were half sunk in the black mud. Their nostrils opened wide and shut as they breathed. Some were breathing through one nostril only in the way they have. From time to time one of them sighed heavily. An ammoniacal steamy stench arose from them. As I watched one or two grunted and settled themselves into positions of greater comfort and one of them lifted a flipper and, in a grotesquely human manner, scratched his belly.

Then two of the Norwegians and an Argentine came upon them through the tussock. They wasted no time looking at them. There was work to be done. The Norwegian hit one of them smartly upon the head with his bamboo and the Argentine another. Instantly the slumbering heap became an uproar. Fifteen heads were raised in indignant protest at being disturbed and, from the two which had been hit, a belching roar came forth. After which they remained with their heads raised and turned a little sideways so as to give their short-sighted eyes a direct view of us. The Norwegians and the Argentine each struck their bull again, the Norwegians crying "Hoi-Yah! Hoi-Yah!" and the Argentine in a higher key "Ai-Ai-Ai." Now the bulls rose up in a fine fury, blowing out their noses like bolsters upon their faces as they do when enraged, rearing themselves up on their foreflippers and emitting crackling roars from their wide open cavernous mouths. Each time they were struck they jerked up their heads, roared and moved back a step on their foreflippers.

Another Norwegian and the other Argentine came up and a drive began. It is a pity there are no elephant seal rookcries in Scotland for seal driving would be a popular sport,

providing the maximum of pain and distress to the victim and no more danger or discomfort to the sportsman than grouse driving. The only disadvantage, it seemed to me, was that as the morning went on I found no place among the tussock where one could have spread a picnic lunch. The object of the game was to drive the seals down to the beach where the bo'sun waited with his Mauser rifle, but that was fairly easy since they made for the sea anyway. We each picked on a bull and, by hitting it continually upon the head and snout, endeavoured to persuade it towards the beach. The great beast -mine was fully twenty feet long -reared itself up at each blow, backing a pace on its fore-flippers and belching loudly. Sometimes it stood its ground and refused to move, remaining reared up in an attitude of bewildered rage with its mouth open. But slowly it gave ground. paused for an instant in my assault upon it it sank its head down upon the ground again with a heavy sigh and watched me with weeping eyes full of suspicion. If I backed out of the immediate range of its myopic vision it sank once more into sloth, consigning me to instant comfortable oblivion. And when I hit it again it reared up in new surprise and astonishment, roaring a fresh indignation as though five seconds had been as five years in its memory.

Thus gradually we drove them towards the beach. We could not drive at once all the fifteen we had found lying together but we drove five. Of the remainder one or two lolloped indignantly away a few paces and then sank down to sleep in the neighbouring tussock. The others settled down complacently again in their muddy wallow and instantly forgot our intrusion. The distressful uproar of their afflicted comrades failed to disturb their resumed slumber. The beast I drove was a vast, scarred and mangy old warrior and he stood his ground continually until one of the Argentines came up and helped him on.

Then one of the bulls burst through the tussock bordering the beach and made one last, despairing, cumbrous dash

for the sea. But his enemy was there before him and stood between him and the water, between him and safety, between him and the end of his battle. Another whack on the head and he reared up on his fore-flippers again roaring with his mouth wide open, defiant, bewildered, nonplussed but unafraid of this strange assailant whom he could only vaguely see. In three strides the bo'sun had come up to him. He placed the muzzle of his rifle inside the creature's mouth and shot him through the palate. He collapsed like a great limp bag upon the stones, the blood oozing from between his flabby lips. The solitary penguin, disturbed from his day dream by this unaccustomed commotion, moved two paces back to the left. And now others burst through the tussock and the bo'sun, hastily reloading, strode from one to the other laying them low upon the shingle, the rifle cracking out repeatedly. He did not always shoot them through the mouth but sometimes through the head near the eye. A thick dark stream flowed slowly out of the circular wound in their heads. Yearling pups and cows lying half in the water lazily lifted their flippers and scratched themselves or, digging their flippers into a soft part of the shingle, threw small stones upon their backs. One or two near the scene of the slaughter looked mildly at us and opened their mouths in protest.

Then we drove some more out of the tussock on to the beach until there were perhaps a dozen corpses, their heads, from which the blood oozed slowly over the stones, towards the sea. Only one succeeded in making the sea before the bo'sun could get to him. He floundered in until the water covered his body and, turning round, regarded us suspiciously for a moment or two, head up. Then, letting his head sink until his nostrils were only just out of the water, he resigned himself to slumber with a heavy sigh and forgot us.

Now the business of skinning the seals began, two men to each corpse. To make death more sure each man, with his sharp triangular knife, made a deep red gash on each side of



Photo . L. H. Matthetes

"It stood its ground."

the neck, thus severing the carotid artery, and the blood jetted out over the shingle. Then they cut along the middle line of the back and along each side with swift, sure strokes of their knives and made other cuts cross-ways, one behind the head and one in front of the tail flippers. Their knives and hands grew crimson and gleamed and often the men straightened themselves at their work to strop their knives on the hones they carried in their belts. As they straightened themselves and saw me watching they laughed and winked. "Much blood!" they said. Meanwhile the young and stringy Norwegian had sculled out to the Don Ernesto, where she rode at anchor in the bay, and was now rowing back to the beach again. Across the widening gap of water between the "pram" and the ship a length of rope increased, making between boat and ship a thin curve which presently dipped into the water. Meanwhile, too, Chiquito was busy away up the beach tormenting cows and pups as they lay in the water. You could see his distant figure dancing for joy as he flung stones and hear their indignant "Ack. Ack-Ack-Ack." From the back of each corpse the skin and its attached thick, greasy-looking greyish blubber was taken off in two strips and then the carcass was turned over and similar strips taken off the under-surface. Now the dozen odd corpses on the beach lay on their backs, red, naked and diminished. Only the unskinned head, tail and fore flippers retained their former size. Beside each lay a heap of blubber. The men straightened themselves and cleaned their dripping hands and knives. The Argentines, who had worked together, being the most skilled had finished first and sat down contentedly where a clump of tussock overshadowed the shingle. They smoked and laughed. Presently they lay down and, clasping their hands behind their heads, they dozed. "So much blood, so much work, for so few beasts," said the ex-student of the University of Oslo, wiping his knife on a piece of waste. One of the men beckoned me over to his skinned corpse. He slit open the body wall and inside lay the stomach. This he slashed open and, looking at me, laughed. It was full of stones among which an obscene tangle of round-worms writhed and turned. There were also the beaks of cuttle-fish on which scals feed. These the Norwegian presented to me with a mock bow and I was obliged to carry these scientific specimens about with me for the rest of the day. Why scal swallow stones no one knows. Perhaps it is to grind up the food in the stomach.

They made a hole in each strip of blubber and passed a wooden toggle through it. The toggles were all on a length of wire, a sling, to which was attached the end of the rope line which the thin young man had brought ashore in the "pram." So that now each strip of blubber in each heap was secured by the toggle to the sling and by the sling to the rope line and by the rope line to the ship. The bo'sun gave a signal to the ship, waving his fur cap in semicircular arcs with his arm. On the ship we saw the steam of the winch and presently the rattle of it came across the water. Slowly the length of line from the ship to the shore straightened itself. The first heap of blubber began to move. It moved towards the water, then the second began to move and the third. Soon all the dozen heaps of blubber were being pulled in a long procession into the sea. The winch rattled distantly and the heaps of blubber trailed away towards the ship.

We left the dead things, raw and meaty, from which the warmth of life faded slowly, lying on the beach, their heads towards the sea. The hooter blew from the ship. It was dinner-time and as we pulled the "pram" down to the water and got into it the black-backed gulls, which had hovered screaming above while the men worked, descended upon the carcasses. The brown Skua gulls, which had stood afar off watching, now approached in fluttering hops and, like vultures, picked the corpses. Chiquito came up joyfully at the last moment. He paused to heave a stone at the old bull which lay in the water still. He reared himself up

again in rage and surprise as though the disturbance were quite unprecedented. Chiquito was happy, for now in one hand he carried by the legs a blue-cyed "Shag." He had shot it as it sat innocently upon a rock surveying the view. With powerful strokes of his sinewy arms the skinny young man made us skim towards the *Don Ernesto*. The two Argentines sat chattering opposite to each other on the gunwhales, and from their cigarettes there came to me on the wind a Continental smell, a smell of Café-Bar.

CHAPTER VI

WINGS

That afternoon we drove all the other seals we could find in the Bay of Isles, which echoed once more with indignant belchings and with the Norwegians' "Hoi-Yah! Hoi-Yah!" or the Argentines' "Ai-Ai-Ai." When it began to grow dark and we rowed off in the "pram" the beach was strewn with carcasses, cold and fleshy, their blood clotted and their sightless eyes towards the sea. The birds feasted upon them.

Before nightfall the Don Ernesto made Elsehul and lay there at anchor for the night, her decks heaped with blubber.

She had a very small mess-room in the stern which narrowed sharply aft. A table occupied the whole of the deck space in this little dingy place and there were benches on each side with a small one thwartships in the stern. Along each of the two side bulkheads there were two bunks one above the other. You descended to this fug-hole by means of a companion hatch from the after deck and, just inside the entrance, stood an enormous stove which Chiquito lit when we dropped anchor. He fed it from a pile of drift-wood that lay behind it. In the mess-room we ate a meal of whale meat, black hunks of which hung outside the door, and onions. Carlsen and the bo'sun and the chief engineer were there and one or two others whom I do not remember. We drank very black gritty coffee from tin mugs. Then the Norwegians played cards. I did not join in because I dislike card games anyway and felt I should be unequal to a game of cards in Norwegian. Chiquito fed the stove into a roaring white heat till it blazed and crackled up its tin chimney, and then went away shutting the door and, from the outside, the skylight hatches, so that no fresh air could possibly get in. As I sat on the settee watching them play

WINGS 71

cards, the air in the little cabin got hotter and hotter. I took off my coat and then my jersey and sat in my shirt-sleeves. Then I took off my shirt and sat in my vest. Finally I took that off too and sat gasping, stripped to the waist. The Norwegians continued to sit in their thick jerseys, overalls and sea-boots. They smoked very rank guid tobacco and the air became thick with fumes. The heat drew the oil out of their clothes and boots and there was a hot stench of seal oil and seal blood. I began to feel sick. However, I was sitting on the thwartships part of the settee and on each side bench sat two or three Norwegians who, intent on their game, their heads haloed in heavy fumes, had forgotten my existence. They hemmed me in and there was no escape. I had not the guts to rise in my seat, push past them and make for the door. In any case I could not go out on the deck half naked. So I hung on gulping from time to time and conscious that I was turning green. The gulps became more and more ominous but the Norwegians noticed nothing. Presently Carlsen pulled a large, loud-ticking turnip out of his pocket, announced that it was ten o'clock and, nodding to me and to the others, went out. The four others lay down in the bunks, the bo'sun removing his fur hat, belt and sea-boots but nothing else. I settled myself on the hard and worn settee. One of them turned out the swinging oil lamp and soon the evil-smelling smoky darkness was filled with the sound of snoring.

When I lay on my right side my hip seemed to acquire a size and proportions I had never observed in it before. When I lay on my back I discovered that I had been born with an abnormally large coccyx. I shifted so that my protuberant hip found a sympathetic hollow in the settee and then my right arm became a nuisance and could not find anywhere to go. I tucked it under my left and presently went to sleep. After a while I awoke and put on my vest and shirt. The stove had died down and glowed now only a feeble red. I now put my coccyx in the hollow where my

hip had been and, folding my arms, slept again. But soon I awoke once more and put on my jersey. The stove was dead and black. From the bunks came the sound of snoring and of rhythmic breathing. I replaced my hip in the hollow, but now that I had removed my jersey from under my head I had to make a new pillow by refolding my coat. This done and my right arm disposed of once more, I slept again. When I awoke a third time to put on my coat the temperature in the little mess-room seemed near freezing. Through the skylight hatch a faint grey showed. Now fully dressed I slept a fourth time and dreamed that I was lying on a beach and the bo'sun was coming towards me with a Mauser rifle. He raised it to his shoulders and then the voice of Chiquito at the door said huskily,

"Olaf! Halb seks-half-past five."

The bo'sun, whose name I thus discovered to be Olaf, and the three other Norwegians were out of their bunks immediately. Olaf put on his sea-boots and his fur cap, from under which his unkempt hair stood outwards, and buckled on his belt. They went heavily up the companion. I arose and, being fully dressed already, followed them. We drank coffee in the galley in dead silence, for it was only five and twenty minutes to six. One by one the sealers came up on deck into the chill morning air from the foe'sle, buckling on belts and adjusting fur caps, their breath trailing away like smoke behind them. The two Argentines came last.

Elsehul is a little circular harbour like a cup surrounded by low hills of tussock grass. It is at the extreme northern end of the island where the precipitous and barren mountains relent and give way to something gentler, to lower hills of tussock grass and moss. It is separated by a grass-covered neck only a quarter of a mile wide from the sea on the other side of the island and to walk to Undine Harbour on the other side of this neck from Elsehul is a matter of minutes. To go round by sea is a matter of hours. It was a grey misty morning and a pall of mist lay level across the tussock WINGS 73

hills, hiding even their comparatively low tops. There were few seals in Elsehul and they lay on the beach since the land sloped too sharply to the sea for them to climb far from the shore. The sealers, therefore, made short work of them and soon the Don Ernesto left Elschul, steaming out of that landlocked harbour into the grey outer sea, from which a swell rolled up out of the vagueness and crashed in foam against the feet of green cliffs, whose tops were hidden by a pall of mist. We passed Cape Paryadin, where the grey Mollymauk gulls sat in thousands on their nests among the tussock, and rolled through Stewart Strait between the mainland and Bird Island. Here myriads of sea birds wheeled and cried endlessly, adding to the lonely desolation of the place. So in the forenoon, after hours of steaming, we came to Undine Harbour, a quarter of an hour's walk from Elsehul. It was a dangerous and rocky bay and the sea broke in foam upon submerged fangs of rock in many places far from the beach. As we approached it from the sea we could make out, upon the slopes of tussock grass overlooking the bay, thousands of white specks. As we came nearer they resolved themselves into great birds sitting upon their nests.

I was now tired of the slaughter upon the beach and so, while the seal population of Undine were being driven down to the beach, shot and skinned, I went for a walk inland. I followed a fresh-water stream up among the tussock. Where the stream debouched from the tussock on to the beach and disappeared among the shingle it made a large pool in which several cow seals lay, fouling the water and turning it brown, and for the first hundred yards or so it had the ammoniacal stench of their excrement. The mud among the tussock at the sides of the stream had been plastered flat by them and several young cows lay in it with black mud up to their eyes. But a little higher up the stream ran bright and clear, bubbling over mossy stones, sometimes cascading through a gorge over which last winter's dusty snow made a

bridge, sometimes widening out over a mossy bog into which I suddenly sank up to my ankles. Soon I was some thirty or forty feet above the sea on a small plain of tussock and moss. The sea was hidden by low hills but from below me I could hear the angry belchings of driven bulls and the distant "Hoi-Yah! Hoi-Yah!" of the men. Black-backed gulls wheeled above me in the grey sky and through all other sounds the sigh of the sea came to me on the gentle breeze.

Suddenly there was a whirr of wings. The dark rushing shape of wings, the shape of claws, the shape of a curved beak rushed upwards close to my head and away. A great brown bird alighted haughtily upon an eminence a hundred yards off, and, with his evil eye, stood watching me, settling his wings. Then I saw that on every eminence on the tussock plain, and all around the higher slopes where the grass swept upwards and became the feet of mountains, these brown birds stood watching me. Sometimes there were two of them. Every now and then one of them launched himself from his hill and, with his wings outstretched, came at me. He swept down upon me, nearer and nearer, in a horrifying rush until I could see, as I ducked instinctively and put up my arm to protect my eyes, the talons, the beak, the bright, hard, wicked eye. And then suddenly, as he was upon me, he swept upwards and away in a great arc and flew back to his perch upon the tussock hill. There he stood watching me. Then another one swooped at me, rushed to within a foot of my head, and then at the last moment swept upwards and was gone. They were Skua gulls guarding their nests from my unwelcome intrusion. At first I was considerably scared of the swooping rushes they made but soon I discovered that, without exception, when they came near me, they seemed to lose courage, or to forget what they had come for, or could not make up their minds what to do next, and turned away from me back to their nests where they stood screaming their rage and indignation. As one after the other they launched themselves

WINGS 75

and came at me I took to throwing my cap into the air in their path. That confused them and made them wobble a little in their flight, turning them away from me before they had finished their swoop. The Norwegians sometimes divert themselves by approaching the nests of Skua gulls in a crouching position with a knife on the end of a stick held vertically. When the defending bird swoops down you straighten yourself suddenly and, if you are quick, the bird impales himself on your knife. Men seem to regard Skua gulls with the same vindictiveness as they regard sharks at sea and will inflict cruelty upon them for vengeance sake. For these birds are scavengers and marauders, robbing other birds of eggs and chicks, frequenting the rookeries of penguins in hundreds and raiding their nests. Chiefly I suppose it is their terrifying appearance that makes one want somehow to destroy them and this, more than anything else no doubt, is the reason for the vindictiveness of sailors towards sharks. have seen a shark turned loose into its own blue ocean with a crowbar stuck through its gills and a tin can tied to its tail.

In spite of the furious swooping rushes and the screaming protests of the defenders, I climbed a knoll and, as I approached the top, the birds rose into the air and flew round in circles screaming. Then, as I still came on, they flew around my head beating the air with their wings so that my ears were filled with the whirring sound they made. waved my cap furiously round my head in circles and shouted, thanking Heaven there were only the mountains to see my antics. Then I suddenly felt a sharp muffled blow on the head and realized that one of them had struck me on the head from behind with his wing. I was lucky. Their blows are by no means always muffled. I whirled my arms more furiously and danced and shouted like a maniac so that the unforgiving scree slopes around me were filled with the sound, the stupid, unimportant, puny, misplaced sound of a human voice. In a little flattened lair at the top of the knoll there crouched and quivered apprehensively two little brown balls of coarse fluff, with round eyes ringed by pale naked skin. I peeped at them hurriedly and left them. As I went away down the knoll, withdrawing as swiftly as dignity would allow, the old birds hovered and shrieked and swooped again in hatred and fury. They continued to do so until I had left their tussock plain and mounted upon cliffs overlooking the sea, not sorry to get away from their onslaughts.

Here the tussock grass was shorter. As I climbed up to the sky-line the sea opened itself out before me. The weather had cleared and the sky out to sea was blue. The ocean itself to the far horizon was blue and flecked with white. Over the mountains of South Georgia clouds rushed and vanished, boiling, turning over and disappearing above the peaks in the way clouds do upon mountains. As I climbed up farther a great black and white bird, sitting among the tussock, looked down upon me. It was an albatross sitting on her nest. I was in the home of the Wanderer for, a few yards off, was another and another. Then I saw that all the tussock cliffs overlooking the sea were speckled with them. These were the white specks I had seen from the Don Ernesto as we approached Undine. This great lady upon her throne of trampled flattened grass regarded me calmly and without surprise or anger, turning upon me a round, bright, jet black eye. The strong breeze from the sea played lightly upon her lovely smooth bosom--a bosom so snowy white and pure that somehow there seemed to be blue lurking deep within it. She moved her wings a little and, turning her head, regally fixed me with her other eye. I approached a step or two and, peremptorily, she clapped her large delicate yellow beak.

"Clap-clap. Clap-clap-clap."

As that had no effect she ordered me off again.

"Clap-clap-clap-clap."

I put my hand out towards her and at that crowning impertinence she made a stab at my hand and I withdrew it.

WINGS 77

Then I did a monstrous thing. I cannot look back on that act of lèse-majesté without shame. I inflicted upon her a shocking indignity. With my sea-boot I gently but firmly pushed her off her throne. On it, warm and with one or two little pieces of down adhering to it, was her jewel without price, her treasure, her kingdom, her all--her egg. She pecked and nosed at my boot; she clapped with her beak in rage and disgust and stood beside her nest with indignity watching what I would do. This is what I did-I blush to say it. I took her egg away and put a stone there. She climbed back upon her nest like an invalid, up for the first time, climbing back into bed and settled herself with comfortable movements of her wings. Something was wrong. She stood up and pushed the stone underneath herself with her beak, managing it into a better position. Then, settling herself with one or two more adjustments, she clapped her fine beak at me, ordering me away. Clap-clap-clap. Yet was everything all right? Her egg seemed to have become strangely uncomfortable. And how cold! And how sharp! She fidgeted and poked around underneath herself with her beak. She settled her lovely white breast into the downy bed more firmly. She faced the world again - a little doubtfully. I went away leaving her wondering. When all around her proud mothers and fathers would be feeding their babies she would be still sitting upon her cold hard angular egg, wondering.

Farther on, upon another hill, I came upon other great birds, greyish brown, upon their nests. They also regarded me without surprise or anxiety, and failed to see any cause for alarm when I approached. When I came too near them they lunged forwards and spat a trail of greasy, brown slime over my legs. For which reason, and because they deserve the name, they are called "Stinker" petrels. Sailors also call them "Nellies" for the simple reason that, like all sailors' names, it suits them. For see them at the whaling station flapping along, hideous and ungainly, trying

vainly to rise from the water and unable to do so because they have gorged themselves so full of filth that they cannot get up! They have to disgorge the contents of their crop before they can heave themselves into the air.

And farther on again, upon a stony slope, I was surrounded by a swarm of fluttering, hovering terns, pale grey and delicate and each with a black cap upon his head. They hovered screaming and dropped down upon me continually with their sharp beaks held vertically as though to pierce my skull. And when close to me they jerked themselves into the air again as if they were worked by strings from above.

Now I had climbed above the tussock grass on to a stony slope that formed the skirt of a mountain. It swept down to a cliff edge. Far below was the wrinkled ocean and the land stretched out jagged arms into it so that its margin ran in bays and loops. I was up among the circling gulls and away down there, in gull's-eye view, I saw the tiny Don Ernesto, from which a dot moved slowly towards the shore. It was the thin young man taking ashore the line for the slings for the twelfth time within forty-eight hours.

As the Don Emesto steamed out of Undine Harbour it was snowing and the flakes drove and whirled past the stern, hissing down upon the piled blubber on the decks. The tussock hills faded into the flying murk, but, as they vanished I could see the myriad specks of albatrosses sitting on their nests. Among them somewhere was a proud lady sitting patiently in the blinding snow upon a hard and unresponsive stone. We lay that night in Wilson Harbour and worked the bays again next day, the Bay of Isles once more, Ice Fjord, Antarctic Bay, New Fortune Bay and then, in the evening, loaded with blubber, we turned homeward, a tiny speck under the beetling cliffs. The Don Ernesto had done well and her decks were loaded with the blubber of nearly five hundred seals whose cold corpses lay rotting around the beaches to show where she had been. They would be skeletons when she came that way next.

WINGS 79

The men were cheerful at the thought of returning to the whaling station as though they were going home. They shaved and put on clean shirts and walked up and down the deck in the evening sunlight. The ex-student of Oslo sang to his mandolin about Isabella and the Argentines smoked their "Quarante-Tres" and lounged in the engine-room hatchway as though it were the entrance to a boite. As we neared Grytviken there became visible, crawling under the giant cliffs from the opposite direction, another grey speck like ourselves. It enlarged and became a little ship loaded so that her decks were almost awash, wallowing and rolling dangerously. It was the Diaz. Jansen also had done well.

CHAPTER VII

INTERLUDE IN BLACK

THE whales which spend the southern summer browsing upon the swarms of "krill" in cold Antarctic waters go north in the winter to breed in warm tropical seas and the whalers hunt them during the mating time from April to September off the coast of Africa. It was part of the programme of the Expedition that scientists should carry on in winter at African whaling stations work similar to that which had been done regularly every summer at South Georgia and which I have already described. One winter season's work had already been done at Saldanha Bay in Cape Colony, about fifty miles north-west of Cape Town, and it was decided that I and another should continue this work at Durban in the winter of 1930. I was a little apprehensive about this since I had heard from Wheeler enough about the difficulties he had experienced at Saldanha Bay to make me feel doubtful about our success at Durban. Further, accounts of the Durban whaling stations which I had received from whalers at South Georgia were not at all encouraging. I was to be in charge of this "detached party," as my companion and I were officially called, and, when Wheeler went home in the Harpon to my great regret at the end of the summer of 1929-30, we crossed to Cape Town in the Royal Research Ship Discovery II which, on her way up from her maiden trip south, called in April 1930 at South Georgia to pick us up. From Cape Town we travelled luxuriously up the coast to Durban by mail steamer. For the first time, the first of many, I saw that lovely high flat mountain with the white city sprawling at its feet and the clear South African sky. The heart of the traveller leaps at the sight of Table Mountain no matter how familiar he may be with it.

The whaling station of the Union Whaling Company at Durban and the factory which in that year belonged to Lever Brothers lie near one another facing the Indian Ocean, cut off from the town by a promontory called the Bluff. Little monkeys play about in the glaucous foliage upon the Bluff and bull frogs make a continuous and satisfying din in the evening. To get to the Bluff from Durban you cross the mouth of the harbour by a ferry. You can then walk to the whaling station either over the Bluff or round the foot of it. It is a short steep climb to walk over the top but, as the guide-book says, "the view well repays the trouble," for there is the whole of that lovely harbour laid out at your feet and the town standing along a sweeping line of surf, and there is the high wide blue space of the Indian Ocean. If you walk round the Bluff you follow the single-track railway line that runs from the coaling yard out to the whaling stations. It is about a mile and a half to the Union Company's station where I and my colleague worked and about two and a half miles to that of Lever Brothers and, when made at six-thirty in the morning as we made it nearly every day for four months, it is a charming journey. On your right are the low cliffs of the Bluff covered with small shiny leafage in which sudden agitations here and there betray the movements of the little grey monkeys. On your left the great rollers come in from the indigo sea of early morning, curling and crashing upon the sands. The sun rises fiercely behind them. There is a cold tang in the air at this hour which will later, as the sun gathers strength, give place to heat. It is difficult walking and often the railway line is almost buried in blown sand. Along the beach already some Indians are fishing for snoek in the surf, their rods supported upon their groins by leather thongs about their waists.

Each whaling station is a compact jumble of sheds and tanks facing the tumbling surf but the "plan" which, as usual, is the central feature does not slope into the sea but away from it so that the filth is collected into gutters and

drained decently into the sea by a pipe-line. Each station stands on a sandy cliff some fifteen to twenty feet high over-looking the shore and the railway line runs alongside the "plan" as though it were a railway station platform. The whales are brought up from the harbour by rail on trucks and dragged by winches from the trucks on to the "plan."

The inhabitants of Durban complain ceaselessly, and somewhat tiresomely, about the smell which, they say, blows from the whaling stations across their beautiful garden city. Up on the Berea where the white houses in the Dutch style stand surrounded by bougainvilleas, poinsettias and the Kaffir boom they said "How disgusting! How could you?" when they heard what we were doing at the whaling station. Perhaps we were inured to the smell of whale for never once during the four months I spent there did I notice any smell of whale in Durban's wide and pleasant streets.

Durban is a hotch-potch of many things. There are wide streets full of modern buildings. Through these the gay Zulu rickshaw boys go loping with their self-conscious fares, mingling their shouts with the hooting of American motorcars. There is an outburst of civic pride in the main square where there are municipal offices with the customary pillars, domes and towers. And there is a magnificent sea front with a yearly extending range of hotels where you can live en pension for anything up to a small fortune a week. But away from the main streets you come upon the orientalism of the Indian quarter where the houses are squat and dingy and brown children swarm about in the gutters. There are constant crowds and noise here and the women in their coloured shawls, many of them delicately beautiful and aristocratic, though slightly unwashed, in appearance, weave in and out among the throng. There always seems to be a slightly squalid gaiety in this quarter and many of the low buildings flower into spurious traceries and eastern domes. At the back of the town again is the even greater dinginess of the native quarter where the hillsides break into a rash of tumbledown tin shanties and hovels around which the earth is stamped flat by bare brown feet.

In fact we could not have well chosen surroundings for our whaling activities more utterly different from those of the previous seven months. We took up our residence in a hotel near the sea front which, we were subsequently told, was just the one we ought not to have chosen. At least, not if we wanted to know the best people. Personally I did not much want to know them. In actual fact it was more or less impossible not to know them since. Durban being a comparatively small place, one met them with discouraging inevitability wherever one went. In any case the hotel we chose was convenient in that it had a side door out of which we slipped, dressed in old and stinking clothes, at fivethirty every morning, disturbing no one but the white-coated, bare-footed Zulu boys who were sweeping the passages. Seeing us slip out thus attired so early every morning they grinned and put us down either as dangerous criminals engaged in nocturnal and clandestine activities, or, more probably, as quietly and harmlessly mad. We drove at break-neck speed in an old car my colleague had bought through the dark and deserted streets, above which the stars paled, and took the first ferry across the harbour. ferry was full of railwaymen going across to the coaling yard for the day shift and when we got to the other side the night shift was waiting at the landing-stage to be taken off. They were Afrikaners and spoke volubly to each other in a mixture of Afrikaans and English. Afrikaans seemed to break down frequently and to be insufficient to express what they wanted to say. On the ferry also were the early morning anglers on their way to fish in the surf for snoek. Many of them were Indians and they carried long rods which they managed with difficulty on the ferry boat.

The Durban whaling stations operated in a very different way from those at South Georgia. In the warm African

sun the whales quickly became rotten so that they were never allowed to remain lying long in the water. Also the harbour authorities forbade the companies to keep a whale lying at the slip for more than twenty-four hours. After that time the tugs took possession of it and towed it out to sea, such is the horror that Durban has of this whale business. Therefore the two stations worked continuously employing hordes of Zulus in two shifts. One shift worked from seven to five during the day and the other from seven to five during the night. So that the standard we set ourselves in South Georgia and the principle that we must miss no whale that came to the station soon went by the board. We worked with the day shift.

The two companies each had a fleet of four catchers and they brought the whales into the harbour at all hours of the day and night. There was a slipway near the ferry landingstage on the Bluff and up this the whales were hauled on to a low truck. If the whale was a large one, two trucks were needed to take it. They were chained on to this forbidding tumbril and, at a signal, went clattering and swaying away along the single line of railway, pulled by a snorting tank engine. Sometimes as we were stumbling along the track to the whaling station this hearse would come snorting past us as we hopped off the track out of its way. If we saw it stop at the Union Company's factory we had to run the last few hundred yards along the track, cursing, to get to the station before the shouting Zulus had set upon the whale and torn it limb from limb. But often, to our relief, it went hurtling and swaying past the Union station and diminished down the track towards Lever Brothers' factory. Often the whale train jumped the track. Then there was rage at the whaling station and, as the day passed and the breakdown gang went leisurely on with its work, dozens of whales accumulated at the slipway in imminent danger of being high-handedly removed by the harbour tugs.

The two whaling stations were staffed by Norwegians an

the whale-boats were manned by Norwegians. The station staff lived in rows of small rooms in a long one-storied building of corrugated iron adjoining the whaling station itself. They were a small isolated community in this steamy, slightly odorous place who lived aloof from the gay resort across the harbour. They made occasional excursions into it and returned with an air of having been abroad. The meals they ate were Norwegian meals-fish-balls and roast meat in slices with sweet sauce and coffee at three in the afternoon. In Norwegian across the table they held the familiar discussions about the weather and the prospects of the season's catch. The secretary and the foreman, with whom we came most in contact, inhabited an office housed in another corrugated iron building that looked eastwards across the sandy beach and its combing lines of surf out to the Indian Ocean where, through a telescope kept in a corner, they might make out at any hour of the day a tiny far-off speck low down on the horizon—a catcher labouring home with her kill.

Under the eye of the foreman the hordes of black and brown Zulus worked upon the "plan." The foreman stood above them on a platform overlooking the "plan" from the shed containing the meat boilers. Occasionally he descended from this Olympus to direct operations and then returned once more to his high place where he presided like a priest over some gigantic sacrifice. He lived in a pleasant state of mellow pessimism. He would stare across the expanse of the Indian Ocean from out of the station windows and say slowly, "Bad weather. No whale to-day," or, "Good weather. Plenty of whales to-day." But you felt that either would be an equal disaster.

The Zulus themselves were under the immediate supervision of an *induna*—a wise man. He was an old white-haired Zulu with a wrinkled face and aristocratic manners. To mark his age and rank he wore a tattered and filthy dirty shirt and trousers instead of the rags the other men wore.

We became great friends with him. I think he thought we were wise men too and always raised his battered hat to us and would make his men give way to us when we required it. He ruled over the Zulus in their squalid encampment near the whaling station and was their father confessor, their pastor and master and their doctor. He had the cure of their souls and their bodies. How he performed the former duty I do not know but he had great influence over the men and if we wanted anything done by them we asked the induna. He was a man to cultivate. In his capacity to cure their bodies the Zulu boys had implicit faith. No white man's medicine for them. Whenever a Humpback whale arrived upon the "plan" the induna would hobble round it, picking off the large barnacles and whale-lice with which these whales are infested. These he put into an old cigarette tin which he carried for the purpose. If a Sperm whale came to the station he would collect the cuttle-fish beaks from its stomach and the writhing, contorting roundworm parasites, pouncing eagerly upon them as they slithered upon the "plan." They, too, went into the tin.

"What on earth are you doing?" I asked one day when I saw him at this.

"Medicine," he said. "Me make medicine. Very good for all badnesses." And he stooped to pick up a worm from the slime beneath our feet.

At first the wise man regarded us with justifiable suspicion for we carried about with us a magic box, a box with the evil eye. The younger Zulus were delighted with our tripod camera and whenever we produced it and set it up with difficulty upon its three legs on the slippery boards of the "plan" they would stand in front of it with their legs apart and arms akimbo completely obscuring the view of the magic eye. Nor would they go away until we had pretended to take their photographs and had been through an elaborate pantonime of adjustment and trigger-clicking. Near the station was a level piece of ground where the whalebone

plates were laid out separately to dry in the sun like the disarticulated leaves of a gigantic Jerusalem artichoke. was told that when dried they were sold to make sausage skins.) Once, when I set up my camera in order to take a picture of the Zulus laying out the black and white plates in long neat rows, a shout of joy went up and they came running towards me from every direction, fought to get in front of the camera and, shricking with shrill laughter, stood on their heads before it in their dirty rags waving their brown legs in the air. I took imaginary pictures of them for a quarter of an hour and came away with my purpose unachieved. But not so the wise man. It was the evil eye and saw into his soul. No white man should smell out the secrets of that guarded place and whenever I tried to take a photograph of him he fled, muttering, and would not come near me again for days. But one day a wind from heaven blew the magic box over so that it fell with a satisfying clatter into the slime and was injured. It was crippled (serve it right!) and I could not bring it out again. But after this well merited visitation the induna was appeased and we were friends again.

The Zulus are a martial people—the blood of T'Ghaka the Terrible still runs in their veins. But now that western civilization has settled heavily upon their country they find little outlet for their martial ardours. Occasionally, however, they still have lovely tribal scraps among themselves when heads are broken, and after these they go home to their kraals feeling much better. But the dead carcasses of whales, apparently, formed a fairly satisfactory second best upon which to let loose the fury that raced in their blood. For with military bearing they trooped upon the "plan" at seven o'clock in the morning and set upon the whales with whoops of joy and battle cries, brandishing aloft their flensing knives. While the carcass was being unloaded from the train they formed up in ranks holding their flensing knives at the ready like spears, so that the sun glinted upon

them. Sometimes they danced and threw up their arms, twirling their knives above their heads. And when pulling on wires or pushing trucks along sidings they chanted an endless rhythmic song that bore an astonishing resemblance to the tunes to which bored westerners shuffle round the Savoy ball-room. But see the gangs of Zulus mending the road in the main street of Durban! Chanting the battle-song of the impis, they lift their pickaxes together and together bring them down with a crash upon the surface of the roadway. Up above their heads the axes flash again, and down with a shout of triumph. Here and there one will twirl his axe above his head, but always they crash down together in time to the chanting, the singing, the music of the warriors of T'Chaka, of Dingaan and of Cetewayo mending the rails of the Durban Corporation tramways. Or see them loping along the road with their rickshaws, their giant plumes nodding (somewhat soiled plumes) and their bells jingling, carrying the white man, the conqueror, in his spectacles and trilby hat whithersoever he wishes for a tickie.

During our four months at Durban we got to like the Zulus. They grinned, they laughed, they danced, they whooped for joy. Yet they had dignity. They seemed to think us rather fine fellows doing something of tremendous significance quite beyond their understanding. At any rate they vied with each other to hold one end of our measuring tape for us when we required it, a feat which they performed with tremendous self-importance like flunkeys carrying regalia.

The two head flensers I remember particularly. One was an enormous Zulu with a wide flat face, spreading nose and broad grin full of magnificent teeth—a description which might apply to every man on the "plan." He, I am sure, thought we were collecting medicines, for he was constantly picking up worms and other intestinal parasites for us and bringing them to us in the flat of his brown palm, grinning and saying "Yes? Good—No?" He was so disappointed if

we said "No good" and went away with such a rueful expression that we often had to accept these gifts from him even if they were of no use to us and must be thrown away discreetly later. Sometimes he would point to a whale lying on the "plan" and say, grinning, "Horrid whale, master. I hate him." Though in what way that particular whale had aroused his displeasure I could not discover. His cheerful philosophy was that a man was born to do nothing but propagate his species and sit in the sun. Women were born to do the work. Accordingly, when on the "plan," he sat in the sun whenever an opportunity presented itself, dangling his brown legs over the edge of the platform and singing to himself. He could only do this, of course, when there was no flensing to do for the moment, or when the foreman or the induna were not looking. On these occasions he would expound his philosophy, which was a practical and common-sense one.

"Me work. Then me go home, sit in sun and drink Kaffir beer. Much Kaffir beer "-and he indicated with his hand the dimensions to which he proposed his stomach should extend after a sufficiency of Kaffir beer. "Me make babies. Plenty baby," he continued. "Wife she do all work and have plenty baby. Many wives no good." And then he drew a charming picture of married life in a Zulu hut, explaining why it was no good to have more than one wife. "Many wives—one make skoff in a corner"— "skoff" is a Kaffir word meaning "food." "She say 'Eat my skoff in my corner.' And another, she make skoff and say 'Eat my skoff in my corner!' And another make skoff and say 'Eat my skoff!' You cannot eat all skoff, and if you eat only one skoff others not like it." Thus the wise Zulu found that the monogamous habits of the white barbarians make for the greatest happiness in the home, whether it be "The Laburnums, Acacia Road" or a beehive-shaped hut upon a wide African plain.

The other flenser was perhaps equally extraordinary,

although, as he spoke no English but only Kaffir and his own queer clicking tongue, his mind was closed to us. But he grinned a great deal and danced continually. In fact, unlike his companion, he was never still, and when not attacking a whale carcass with demoniac fury would prance around the "plan" flourishing his knife in an alarming fashion, performing Dervish pirouettes and twirls, and uttering blood-curdling yells. He had a Mongolian cast of feature. Many of the Zulus, I noticed, were of this Chinese type, golden rather than black, with slanting slit eyes and thin lips. I seem to remember being told that there were Chinese in Natal at one time, shipped over for cheap labour and subsequently shipped back again, but not before they had left their mark on the population. This Zulu had the thin lips and slanting eyes of the Chinaman. He wore an old hat made into the shape of a peaked robin-hood cap. He had thin shapely arms and hands like a woman, decorated with bracelets, and he used them continually in curiously feminine gestures. He was continually ornamenting himself with odds and ends. Bits of metal picked up around the station, if bright enough, would be stuck into his hat or worn stylishly in his belt. Many of the whales taken in tropical waters are infested with tape-worm parasites, white and beaded, several yards long. These were a particular delight to this strange Zulu and excited his artistic fancy. He would go to great trouble to extract a really fine length of white tape-worm from the intestine and, having washed it at the tap, would drape himself in it, winding its white ribbon round his arm, round his shoulders or round his waist. Thus fetchingly attired he would prance and twirl around the "plan," whooping for joy.

The Zulus lived in an encampment near the whaling station, which, since their ideas of sanitation were primitive, made the immediate vicinity extremely noisome. When we arrived at the whaling station between six-thirty and seven o'clock in the morning the inhabitants of this

dingy encampment could be seen trooping towards the "plan" where there were running water-taps. Here, with the night shift which ceased work at five, they washed themselves. In the morning sunshine their wet brown bodies were a moving bronze frieze and they chattered and grinned as we passed. My colleague and I had the use of a small outhouse which the management had given over to us. Here we kept our evil smelling whale overalls, our flensing knives, the log-books in which we kept our records, jars of specimens, bottles of formalin. After we had been working about a fortnight the flies, which grew and multiplied exceedingly, as may be well imagined, all round the whaling station, had grown and multiplied to such an extent in our abode that whenever we opened the door a black cloud flew out into the outer sunshine without causing any evident diminution of the teeming population within. We hung fly-papers about in festoons but they soon became blackened with victims without any effect. Accordingly we adopted another stratagem which, repeated at weekly intervals, was astonishingly effective. At the end of our day's work, when we had taken our overalls off and hung them up, we blocked up the cracks of the windows and the skylight above the door with rags and waste and poured some strong formalin into a shallow dish. We then added some boiling water to it and left it for the night. When we returned next morning it was necessary to leave the door and window open for half an hour before regaining possession because of the fumes, but when we did all our books, papers and jars, the table and the floor, were soul-satisfyingly littered with dead bodies. But in a week's time the thick air of the outhouse was black with flies again and another gas attack became necessary.

Before work began each day with the day shift we drank thick coffee with the station staff. The foreman would tell us dully how many whales were expected during the day. At breakfast-time and at midday we ate enormously, ravenously, with them again—waited upon by George, who was a "good boy." George had a huge buxom wife like a dusky balloon and a tiny baby like a little black gourd which she carried about on her back. The existence of this agreeable lady and her child at first amazed me for George looked about sixteen. When I heard that he was nearly thirty it amazed me less. George is still a good boy and still serves skoff to his masters at the whaling station and Mrs. George has another little black gourd to carry about on her back. I was doubtful at first how to behave towards George but he never had any doubts about me. One day, early in the four months we spent at Durban, he saw me dissecting whales' ovaries in a pool of blood on the stoep. "Dirty!" he said, grinning and showing his beautiful white teeth. "What you do with all that?"

"Go to blazes. Mind your own business," I said genially. I would have no damned familiarity. And George went away silently on his thick black feet more convinced about me than ever. But later I found that this attitude of mine had been the wrong one so I told him. But George's convictions remained.

During June and July Blue and Fin whales came lumbering up the track one after the other on their snorting hearse and were hauled off on to the "plan" amid the shouting yelling Zulus to be hacked to pieces in an inferno of steam and blood and deafening noise. We found the work exceedingly exhausting in the hot sun, winter-time though it was, for this side of the Bluff was dank and hot and airless. Most of the time we worked with nothing under our overalls at all and I cut the rubber thigh-boots which I had brought from South Georgia down to the ankles. I am ashamed to say that when the whale train went swaying and hurtling past us bearing its corpse to the other station I was often extremely relieved. However, at the end of July and the beginning of August there were often long blank days when all we did was to wait about at the whaling station for whales

that never arrived, for the season for Blue and Fin whales was coming to an end. This, perhaps, was the most wearisome part of our work at Durban. For often we would receive news that there was a whale waiting at the harbour slipway for the Union Company and that it would be brought up on the train presently, when the engine had finished a shunting job, or when the train returned from the other whaling station. So we would wait about all day, through a hot morning and afternoon, kicking our heels up and down the sandy track but never daring to go far away. Then at sundown, when the day shift knocked off, we would give it up and leave the station, only to hear next day that almost immediately after we had left the whale had arrived. else it would arrive while we were still there and the foreman would decide not to dismember it until the night shift came on. And often we waited long hours in uncertainty whether any whales would arrive or not, since the whale-boats had no wireless and came into Durban harbour at all hours of the day and night with their catches.

In August, however, we waited less and wandered less often disconsolately along the railway track for the whalers began to catch Sperm whales. The winter whaling season at Durban is divided into two parts, a first from April to July when the whalers take Blue and Fin whales which have come north from Antarctic seas to warmer waters to breed, and a second, after the Blues and Fins have gone south again, when the whalers take Sperm whales. In actual fact the Sperm whales are always there to be taken but the whalers do not bother about them when the Blue and Fin whales are available since they yield an inferior oil which, moreover, does not mix in tanks with the Blue and Fin whale oil. Occasional old bull Sperm whales find their way south as far as South Georgia and are sometimes taken faute de mieux by the gunners. When a whale boat arrives in the harbour of Grytviken with a Sperm whale there is usually cursing on the "plan" since, because Sperm oil will not mix with that of Blue and Fin whales, a boiler must be cleaned out specially for its reception, and the Sperm whale must be left until all the Blues and Fins have been disposed of. "plan" must be cleaned, washed down and swept before the Sperm is hauled on to it. But these old bulls at South Georgia are a rarity. They are strays, for the real home of the Sperm whale is now the Indian Ocean. It used to frequent warm and temperate waters all over the world but the whalers were improvident in their pursuit of it during the nineteenth century so that it is taken in quantity only off the east coast of Africa. It is said to have a breeding ground near the Seychelles. Actually I believe the Durban station of the Union Whaling Company is the only one in the world which now takes Sperm whales regularly and in large numbers. They are strange-looking beasts. When you see them on the "plan" it is even more difficult to believe that they were ever live animals, moving and having their being, than it is to believe this of any other whales. For their shape is fantastic. The body seems to be mostly head, a huge cylindrical head like the boiler of a locomotive, and it tapers away to a tail which is mere anti-climax and bathos. On each side of the cylindrical head, low down, are two eyes, small and cunning, each with a widely different view upon the world from its fellow. In front of the cylinder on top is a single nostril, the blow-hole. Underneath the cylinder, fitting into a groove which runs along its underside, is a bar with a double row of pointed teeth. This is the mouth. Inside the vast boiler of a head is a tank filled with a kind of thick oil-the Spermaceti, which used to be used for making church candles and, I believe, is still sometimes used for that purpose. When the top of the head is slit open the Spermaceti runs out and congcals like wax upon the ground when it comes in contact with the air.

The Sperm whale belongs to that other group of whales, the toothed whales, as distinct from the group of whalebone whales to which the Blues and Fins belong. It does not feed



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on drifting swarms of "krill" but upon giant cuttle-fish, squids, the remains of which we often found in their stomachs. These giant cuttle-fish are still something of a mystery since their darting movements in the water are of such lightning rapidity that no net has ever yet been devised which can catch them. They are known only from the decayed remains found in the stomachs of Sperm whales or from dead bodies washed up occasionally on sea-shores. Some of the fragments we found inside whales' stomachs at Durban must have belonged to creatures ten or twelve feet long but larger ones than that have been found. In spite of the swiftness of these squids the Sperm whale with his snapping jaws is swifter and once or twice we pieced together nearly fifty cuttle-fish from one stomach. The old bull Sperin whales which were sometimes brought to South Georgia always had the sides of their mouths and faces scarred with the circular marks of suckers, and sometimes grooved by the tearing hooks with which these suckers are armed. You could picture the writhing, twisting struggle as the difficult repast vanished into that incompetent-looking mouth. It is this unappetizing diet which is responsible for the formation of that curious substance, ambergris, which scent manufacturers value so highly because it fixes and makes permanent their perfumes. Cuttle-fish have horny jaws, like the beak of a parrot, inside their heads with which they grind up their food. These the Sperm whale cannot digest and almost always we found these beaks in great numbers in the stomachs, even if the cuttles to which they once belonged had long since disappeared. Sometimes these beaks set up an irritation in the whale's intestines and a mass of mucus is secreted which, with the intestinal contents, makes a concretion around the hard irritant body. This is excreted into the sea, presumably when the whale defaecates. This giant faecal pellet may be the size of a baby's head and, if found washed up on the sea-shore by some fortunate beachcomber, is called by the gentler name of ambergris and fetches a great price. Part of the business of dismembering Sperm whales at Durban, therefore, was the ceremony of exploring the lengths of the intestine for unextruded lumps of ambergris. If found these unextruded lumps would be less valuable than ambergris washed up on the sea-shore but nevertheless worth having. The Zulus carried out this unsavoury search with great thoroughness, passing the whole length of their arms up to the armpit along the slimy intestinal tubes, lying flat on their stomachs to do it. Nevertheless, they never found any ambergris in Sperm whales while we were at Durban. On one occasion, however, when, for a reason which I now forget, we elected to work with the night shift the engine came snorting and hissing alongside the "plan" with an enormous Blue whale, one of the largest I have ever seen. It was nearly a hundred feet long and its head hung over the edge of the "plan" above the railway line, so that the engine and the forward truck of the whale train had to be uncoupled from the rear one and shunted round by a siding to enable the train to return to the harbour. Working on the "plan" by night was an eerie business. Swaying arc-lights threw a bluish glare upon the rising clouds of steam from the winches and the dimly moving figures of the men so that the whole scene looked hellish and terrifying, like an inferno. In this giant Blue whale I chanced to come upon three large lumps of some hard substance in the intestine. We opened the intestine and found about fifteen such lumps, all about the size of a baby's head. They were heavy and slimy in the hand and had an evil and familiar faecal smell. The foreman swore that they were ambergris, saying with an air of profound gloom "Ambergris all right" many times over. I swore with equal violence that they were simply what they looked and smelt like. However, he won the argument and kept them for the night carefully locked in a shed as though they were lumps of gold. Next day, however, I changed my tune and began to think that they really were lumps of gold, for they had dried and lost their brown colour. They were now the characteristic grey of ambergris and had its soapy, waxy feel. Their evil smell, too, had gone and given place to a slight sweet, not unpleasant aroma. With difficulty I induced the foreman to give me a small lump and broke it open. Inside was a bunch of whalebone bristles such as one often finds in the intestines of a whale which is not feeding. All the whales caught at Durban are on starvation diet, necessarily so since there is no krill for them in these warm waters. I thought it quite likely that these bristles might have set up an irritation in the intestine similar to that caused by the cuttle-fish beaks in the intestine of the Sperm whale. I sent a fragment of my hard won lump to an analyst in Durban, who pronounced that it answered all the tests of ambergris. Ambergris from a Blue whale! I described all this triumphantly in my report to the Committee and when I got back to London in June the following year I sent another fragment confidently to the Government Laboratory in Fetter Lane. They, uninspired and unimpressed, replied in due course, politely, that my first opinion had been the correct one. Sic transit gloria! What happened to the other fourteen faeces so carefully collected and locked up like treasures that night I never heard.

The Sperm whale is said to be in habit somewhat like the elephant. The bull, which, unlike the bull of any other kind of whale, is much larger than the cow, is said to collect unto himself harems of cows with whom he lords it through the blue tropic seas until another bull, stronger and more valorous than he, conquers him and takes his place as master of his docile and obedient but faithless harem. The old bull, like the old bull elephant, then, they say, becomes a rogue and wanders off by himself and it is possible that the old bull Sperms taken at South Georgia are such rogues driven out of Paradise, defeated and disgraced. Certainly they bear many battle-scars. At Durban we had the rare experience of seeing the cow Sperm whale at close quarters—

a rare experience because the Union station was the only factory in the world where they were taken. We had perhaps the even rarer experience of cutting out small unborn embryo Sperm whales from them. The Sperm cows are very small, often only twenty to thirty feet long. Blue and Fin whales are about this length at birth. The Zulus used to deal with the Sperm cows on the "plan" in batches of six or eight at a time, the train bringing them up like this, three or four chained together on the same truck. So that our work was well cut out for us and we hopped like crickets from one whale to the other and back again over their slippery smooth bodies with our measuring tape and our flensing knives in a kind of sweating frenzy. Frequently during these scrambling slipping obstacle races across the "plan" we got in the way of the flensers. They were delighted and grinned from one ear to the other, stopping in their work with flensing knives poised until the foreman descended like Zeus from Olympus and spurred them on with verbal thunderbolts.

The catchers did not go out to sea on Sundays, so that on Monday the day shift did not work since there were never any whales on that day. Behold, therefore, on any Monday during the Durban winter season of 1930 the "detached party" reclining upon the sands amid the holiday crowds from Johannesburg, or in the afternoon leaping in white flannels upon the tennis courts at the country club, or later in some cool room upon the Berea, French windows opening upon a verandah and a view, handing cocktails while someone charming archly says, "Oh, but the smell! How could you!"

CHAPTER VIII

METROPOLIS

I RETURNED to London in the summer of 1931. Home-coming is never quite what you expect it to be. The red motorbuses went cavorting round Hyde Park Corner exactly as they had cavorted there two years ago. The signs in Piccadilly lit up the same endless procession of blank faces to whom my dramatic return meant nothing. Life went on and had (astonishingly but all too obviously) been going on unchecked in its rhythm throughout my months of absence. And when I went south again in the following autumn I found the rhythm of Antarctic life proceeding with an indifference equally sublime. Over all the inhospitable hills, which the winter's snows were beginning to lay bare, the majestic cycle of mating, egg-laying and parental care was about to begin again. The penguins, too, were returning to their cities which received them coldly as mine had received me.

The penguins are a gay and gregarious people. Their teeming cities are strung out all along the coasts of Antarctica and on all the bare and forbidding islands washed by the Southern Ocean. Wherever there is available space with access to the sea you may find a huge metropolis spreading all over the barren cliffs or covering the seaward faces of the stony hills. The architecture of the dwellings of which these cities are composed is of the crudest, for each is a mere circular aggregation of angular stones often perched precariously upon a ledge and exposed to all the winds. No citizen has a home bigger or better appointed than his neighbour and all are furnished in the same spartan way, but to every citizen his home is his castle, just like yours or mine, and he will rush out to defend it with ferocity and blind courage. There are neither mansions nor palaces in the

city and the well-worn streets go steeply down to the sea. The sole industry of the packed and jostling inhabitants is that of reproduction and to this fundamental end all the energy of the community is directed, just as is the energy of every community for that matter.

On the bare hillsides of Deception Island a vast metropolis spreads itself out over the sides of a steep valley the end of which, between towering cliffs of black basalt, looks over a narrow stretch of sea to Livingston Island standing like a line of cloud along the horizon.

Deception Island, in the South Shetlands, is a slender ring of mountains enclosing a harbour which, like an eye, gazes upwards at the clouds driving across it from the neighbouring Antarctic Continent. The island is a volcano which has sunk, letting the sea into the crater. This now forms the almost circular harbour and the ship enters through a narrow gateway between beetling basalt cliffs known as Neptune's Bellows. The volcano is not yet quite extinct so that inside the harbour there is a sulphurous stench and steam rises up continuously from the beach. In spite of the ice that during the winter and early spring chokes the harbour the black sand and the shallows of the sca's margin are steaming and warm. Much of the land that rings the harbour round must be warm also since snow cannot lie upon great patches of it so that they are always barren, black and stricken, supporting no life.

The glory of Deception Island has departed nowadays. In the boom years of the whaling industry, 1927-30, dozens of whaling factory ships used to make fast to the shore in Deception Harbour during the summer while their fleets of catchers spread slaughter around the narrow, island-studded seas outside which abounded in whales. There was also a whaling station in the harbour and a minute hut containing an office where a British official carried out the duties of magistrate, whatever they may have been, to the community of Norwegian whalers, the most southerly community in the

world. No one lived ashore in Deception Island even in those days but the whole population lived aboard the factory ships and the "plan" workers on the whaling station went ashore from their ship daily and returned to cramped and narrow quarters on board ship every evening. The whalers used to arrive at Deception in about November when the ice cleared away from the immediate neighbourhood of the island and then, for three months, the wide basalt enclosed basin was loud with clatter and rattle of industry. During the summer months there is continuous, though usually grey, daylight and the catchers came and went ceaselessly through Neptune's Bellows, towing their balloon-like carcasses. In the early years, before the introduction of the regulations which now govern the hunting of whales, the catchers used to bring in whales at such a speed that the factories only stripped off the blubber and let the rest of the carcass, the "skrott," float away, so that the shores of the harbour became strewn with rotting corpses. Long after the introduction of regulations obliged the factories to use up the whole carcass the bleached skeletons of the Leviathan have remained—giant vertebrae, ribs and wedge-shaped skulls testifying to the ruthless slaughter of the past. In February the ice returns to Deception and in that month the factory ships used to cast off from the beach and each one with its fleet of catchers steamed out through Neptune's Bellows and northwards. The whalers cannot have enjoyed Deception much and I have often heard them say it was the very hell of a place for, in addition to the continual stink of sulphur, there are frequent earth-tremors. The old volcano grumbles continually below so that subsidences and earthquakes are constantly taking place. Tanks and buildings have a way of suddenly disappearing into the sea and having to be resurrected with the astonishing resource which is characteristic of Norwegian whalers. Moorings, too, have a way of suddenly coming adrift without warning.

But nowadays Deception Harbour is silent and deserted.

The moorings where the factory ships used to tie up are sinking into the black sand. The whaling station is falling into disrepair. Snow is silting up everywhere and the buildings have a forlorn, forgotten look. The chimneys of the factory stand up gaunt against the black and white mountains. But the bleached skeletons around the beach are still there and tell their own story of what once went on within that basalt ring. Millions of sea birds have died with the departure of the whalers but the fish, finding the water pure and clean again, have crept in warily through Neptune's Bellows and reclaimed their own.

The great metropolis, however, is still there and flourishes all the more because the invaders have gone. Marauding bands of whalers do not come suddenly over the brow of the hill any more to swoop upon the city, carrying away its treasure by the bagful in the springtime.

Nevertheless something did happen that southern spring which caused a great deal of local disturbance and indignation among the inhabitants, for the *Discovery II* dropped anchor in Deception Harbour.

Around the deserted whaling station the pack-ice still lay in thick irregular floes. Rayner, the doctor and I had difficulty in pushing through them in the pram and frequently had to push against the ice with the oars to make an opening for the boat to pass through. We reached the shore and pulled the 'pram' up on the warm and steaming beach. In the shallows stood some hundreds of little white birds, known as "paddies," regarding our movements with neither interest nor curiosity. When approached they walked away with a pigeon-like strutting gait and only took to their wings unwillingly as a last resort, and even then only to settle down a few yards farther on, looking at us with a hard, round and uncomprehending eye. To get to the city of penguins from the whaling station you have to climb up and over the steep sides of the cup which is Deception Harbour. The snow slope ascends steeply to a sharp sky-line.



Photo: Alfred Saunders, F.R.P.S

There was a stiff wind blowing across the harbour so that wisps and tails of driven snow curled all along this sky-line behind which the hurrying clouds disappeared out of the zenith.

Rayner was a stronger walker than I and was soon well ahead. On this steep snow-slope the going was heavy for you sank in over the ankles at every step. I determined to lct Rayner go his own way and he was before long far in front up the slope with a camera on his back and his breath trailing away behind him in curling plumes. The doctor, on the other hand, made no pretence at all of physical prowess and frequently, and cheerfully, stopped to rest so that our party of three was soon strung out upon the mountainside--Rayner far ahead, a dot upon the white snow-face, then I and then the doctor, another dot below. However, presently we stood upon the summit, driven snow whirling about our feet and up into our faces. We could see the whole ring of black and white mountains, cup-like, enclosing the harbour, which was a black pool at our feet, its face slashed here and there by hurrying gusts of wind. We could see the narrow straits beyond and, far off, the high, vague mountains of the Antarctic Continent over which heavy clouds hung menacingly and reached up arms into the vault above. Along the distant rim of the cup driven snow blew up like smoke. There was a blizzard coming. at hand, beneath us, was the deserted whaling station, its empty "plan" a square of white crossed by the tracks we ourselves had made. Close to it lay the Discovery II, a tiny toy ship surrounded by irregular cakes of ice.

But on turning round we could see the city of birds covering the irregular hills that dropped away down to the sea on the other side of the ridge we stood upon. The hills fell away down to a steep valley that opened northwards, giving a view of a triangle of sea with Livingston Island in the far distance. All the sides of this valley, from which the snow had all but melted and lay only in irregular streaks and patches, were alive with teeming millions of penguins.

They made a black and white shifting mass upon the bare hillsides and a continual movement seemed to cover the earth. Though the whole multitude seemed stationary yet wherever you looked there was a coming and going, a shifting, a movement of little black and white shapes. As we descended, getting under the lee of the hill, a strong ammoniac smell came to us on the veering breeze, and with each eddy or gust there rose and fell the sound of multitudinous chattering. This smell and this noise increased and became continuous as we approached and soon were overpowering, choking and deafening. Whenever I hear people cooing with delight at photographs of penguins I recall the powerful choking stench of their rookeries, the birds' own bodies smeared and their feathers clotted with their own ordure and that of their fellows, shot at random in grey, white and brown streaks.

As we approached the outskirts of this teeming multitude a chatter of indignation arose in our immediate vicinity. Beaks were raised in a chorus of protest around us, but only those immediately concerned took any particular notice of our intrusion. We walked through and among them causing around ourselves a local maelstrom of rage and horrified expostulation. They stabbed with their sharp beaks at our sea-boots. They smacked at our legs with their stiff flippers. Sometimes one some paces off would run at us bristling with fury, the feathers on his head erect and his flippers beating backwards and forwards like flails. After a few thrusts and smacks at our legs, however, he forgot, or could not be bothered, and waddled back to his nest quite unable to imagine what it had all been about. And as we passed through the crowd they all forgot us as soon as we had gone two paces away from them, leaving the business of shrill protest to be taken up by their neighbours. No one worried about us until we had become an immediate and impending crisis and everyone forgot us as soon as the crisis we represented had passed.

In spite of the suffocating stench I sat down among them to watch. My action in so doing caused a momentary uproar but, after I had been seated a second or two, they forgot me and thought about something else. They were Ringed penguins. Each had a black coat and white waistcoat. His eye was islanded in a triangle of white, divided by a black line from the whiteness of his throat so that he seemed to be wearing a mask. The eye gazed back at you, expressionless as a boot-button from out of its triangular field, and blinked without shutting, veiling itself for a split second of time in the disconcerting manner of birds. They made little contented hissing noises to themselves, nuzzled their beaks into their breasts and under their flippers, or, suddenly and for no obvious reason except sheer lightness of heart, lifted their beaks and squawked. Or they would stretch their necks vertically upwards until they looked like bottles and then, with their flippers held out semaphorewise, they made a high ecstatic gurgling noise, shaking their flippers at the same time and expressing thereby unparalleled joie de vivre, as though life in that stony waste were the most infinitely desirable form of existence in the world. And every now and then they raised their tails and shot a creamy iet over the already foul stones they sat on, over each other and over me.

The place where I sat down was near one of the many irregular beaten pathways of the city that wound through the multitude down to the sea. Up and down this the inhabitants passed continually, singly or in groups. Sometimes those going in opposite directions would stop and pass the time of day, bowing and chattering, and then pass on. They moved awkwardly and with a waddling gait, their heads pushed forward as if they were short-sighted and uncertain of the ground, their flippers held out stiffly behind them.

It was the springtime. The spring has its call and its significance even on the stony and barren wastes of Decep-

tion Island so that the fundamental process to which, in the end, all activities boil down was taking place again. The penguins, I could see, were in pairs among their stones. Here and there one member of the pair was occupied in wandering purposefully about, intent on some kind of search. He seemed to be searching the ground, and, presently, after much consideration, peering and bowing, he would pick up a particularly, and to my unenlightened eye, unattractive stone in his beak and carry it back to his consort. He placed it with great pride at her feet--a thing of great price, an offering, a tribute, a bouquet of flowers. There was more rejoicing over it than over the sixpence that was lost and is found. They bowed to each other. They lifted their beaks and stretched their necks upwards until they were two bottles opposite one another. Then they swayed their heads in semicircles from side to side alternately, shaking their flippers and squawking with pleasure. The hen would bend lown and nose the stone with her beak on to the ring with which she was already surrounded, and suddenly they both forgot and just stood gazing with expressionless boot-buttons, or doing vague things with their beaks among their own feathers. Presently, however, the little cock would recollect and waddle off again among the nests, receiving indignant pecks and buffets from his unfriendly neighbours as he went, searching for another treasure fit for his lady. And soon he found one. What difference there was between the stone he chose for her and the countless others with which he was surrounded I could not imagine, but no doubt it had some special property only perceptible by those who knew.

On the way back with his treasure, however, something occurred which almost broke up his home. For he saw, sitting not ten paces from his industrious consort, who was busy with some household duty among her stones, a perfectly enormous penguin. It must have been fifty times the size of all the others and sat in a crouching position, brooding

like a God among the chattering throng. At the feet of this outsize in consorts he dropped his stone and stood awaiting the response. But the giant was evidently an ass and saw in his tribute nothing but a grey angular stone, and anyway, not knowing the procedure on receiving such an invitation to the waltz, made no movement. So he forgot all about it and, after a few adjustments to the breast and underarm, he waddled away to his consort who received him with bows and ecstatic liftings of the head, his momentary faithlessness unnoticed.

In this way homes were being built throughout the city and there were being laid the foundations of a family life which would last until the autumn. In many cases the home was already built and the hen, contented in the consummation of her efforts, was sitting full length upon her white breast in her uncomfortable circle of stones. Under her, warm and alive, dirty but infinitely precious, was her egg. Her whole bearing expressed desire fulfilled and her mate stood by, the proud and satisfied husband. And again there were other hens, prouder still, from under whose recumbent bosoms, now clotted and fouled by reclining in their own ordure, there protruded a tiny, wizened, utterly unbirdlike head. Its small beak gaped to give forth a thin pitiful sound, whereupon the mother settled herself down upon it and it disappeared. So tiny and wan a spark of life would easily be extinguished.

The doctor, Rayner and I met under the overhang of the basalt cliffs and boiled a billie-can with permission in it. I have seldom been so grateful for anything because I was blue with cold from sitting so long among the penguins. It had begun to blow and the wind came whistling down the valley, blowing the snow before it. The black clouds, which had been climbing steadily up from the south, now covered the whole sky with their leaden mass. We were sheltered where we sat by the towering cliffs. Icicles a foot long hung above us like teeth and, framed in their glittering semicircle, a dark

sea rolled and crashed on to the steep beach of black shingle, yielding up penguins from its foam. Their heads dotted the middle distance of the water in hundreds. With each roller dozens were carried on to the beach, flapped on their stomachs up the shingle, legs and flippers working furiously, and then stood erect, shook themselves and waddled away inland. Against the continual stream of penguins coming ashore there ran a counter current of penguins launching out to sea. They stood at the frothy margin, bowing to the waves, and, when the sea reached out an arm to them, flopped on their stomachs and paddled themselves into it, making off with swift darting movements through the water.

But now the whole valley, during our brief but satisfactory luncheon, had become a flying, whirling mass of snow. The mountains and the penguin-covered slopes drew a veil over themselves. We thought it better to begin our homeward journey and turned towards the high neck over which we had first descended into the valley. The penguins hunched themselves up and let the snow rush upon them, piling up around them. One by one they sat down upon their breasts, each like a little boat, and the increasing whiteness began to cover them until each was a mound from which two boot-button eyes gazed out utterly without emotion upon a world of flying nothingness. Through this three dark figures struggled, holding hands and making very slow progress. The force of the wind was such that you could lean forward limply upon it. Often it blew you back a step or two. Everything was blotted out and became a shifting, flying glare of white. There was no way of guessing our direction but we knew that by continuing uphill, away from the sea, we must eventually reach the summit of the mountain ring over which we had passed in sunshine but three hours previously, and, by keeping as nearly as we could in the bottom of the calley, we must reach the summit at a point not very far from the neck we had crossed. On the way down that morning I had noticed that the valley ended abruptly in a precipitous funnel of snow about two hundred feet high, rimmed with a ragged overhang of ice. In such a blinding flurry as this it would have been impossible to climb up the steep sides of that place. Without ropes and axes it would have been impossible even in sunshine, so presently we left the floor of the valley and struck off to the right up a snow slope which climbed indefinitely into the whirling murk. The snow slope seemed to go on everlastingly upwards. The only way you could tell that you were approaching the summit was by the steady increase in the wind. The flying snow congealed under the flaps of our leather helmets. Our noses ran and the mucus froze upon our upper lips. The snow caked itself upon our beards and moustaches, on our eyebrows and presently upon our eyelashes, so that our eyes began to be closed up with heavy lumps of ice, which hung like clamps upon our eyelids. The going was killing because the snow was soft, powdery and new and we often sank into it up to our knees. Several times one of us stumbled and lay full length, unable to get up without help because of the force of the wind. Every few yards we had to stop and rest, heads down, panting through our icicled beards, our hands clasped on bent knees. We held hands tightly to keep contact for we dared not allow ourselves to become separated. Driven snow lashed our faces and made a loud hissing patter upon our legs. It clung to us and congealed so that we became encased from head to foot in a kind of armour. Suddenly, below us on our left, the white whirling fury around us seemed to become darker. The snow, instead of rushing down on to an even whiteness, seemed to go on flying downwards into space. was the funnel. We were only a yard or two from its edge. I saw it first and shouted, "Look out!" and the three of us scrambled up away from the yawning nothingness, and stood panting and saying, "We were nearly down that all right." But, at last, after what seemed hours to me, holding hands

and leaning well down, gasping and almost blind, for our eyes were all but closed, we reached the summit. There the gale, deflected upwards by the windward slope, drove the snow high above our heads in a long continuous wall that was almost opaque. It rushed upwards and, arching over, spun hissing away behind us towards the penguin city, which had long ago been blotted from view. Heads down we plunged forward through the stinging veil, peering once more down towards Deception Harbour. It lay below us darkling and unruffled, ringed with its black and white walls. As we descended the slope we left the wind behind us, rushing in the upper air. Down here there was no wind at all and it was snowing in large heavy flakes. We laughed, remembering how, but twenty minutes ago, I had gasped, through lips almost closed by ice: "Good God! We'll never make it."

And Rayner had replied: "Of course we shall. Keep hold of my hand."

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About mid-summer life begins to become a bit too much for the anxious parents in the penguin colonies. The little wizened grey misery that we saw at Deception grows fast and clamours louder and louder, in its thin piping voice, to be fed. It stretches its beak upwards in ceaseless expectancy and, if not yielded to immediately, it importunes its parents without mercy, yelling up into their faces for food and waving its gaping beak backwards and forwards under their noses. Both husband and wife work overtime, taking it in turns to go away to sea and return with gorged crops, which, after a little feigned refusal, they disgorge for the benefit of their offspring. This is an obscene business. The parent bends downwards with the beak wide open. There is a vomiting movement in the throat and the lucky child pushes its beak, and indeed half its head, into its parent's mouth. Here the disgorged contents of the parental crop are held on a

comb-like tongue and are gobbled, with every manifestation of enjoyment, by the chick, which, directly the meal is over, shrieks for more. The chick, as it grows, turns from a dirty light grey to a dirty dark grey and is an exceedingly unlovely object. It is then that its demands upon its hardworking parents become too much for them, and all the parents in the community take collective action against the persistent aggression of their own children. They band the younger generation together in groups of a dozen or more, each under the supervision of a few grown birds which act as guardians and nurses. All the rest of the parents then go away to sea and return continually with their crops filled with a pulpy vomit of "krill." Somehow they continue for a while to recognize their own offspring and call to them. The chicks come running to the water's edge to meet them, agape and eager, separating themselves from their fellows in the nursery. Sometimes, however, the parents make a mistake and disgorge to the wrong chick. After a while the family bonds loosen and the older birds disgorge to any comer.

It was in this condition, with the chicks grouped together in nurseries, that we found them at the South Orkneys. It was just before my face collapsed. That unfortunate mishap occurred because the root of the facial nerve had become inflamed, so that one morning I looked in my cabin mirror and found that one side of my face had lost all power of movement. The lines in my forehead stopped abruptly above the nose and from the left side of my brow all signs of care had been smoothed away. I dribbled and drooled out of the left side of my mouth like an old man. This quite painless, though disconcerting, condition, known as "Bell's paralysis," lasted for three weeks, during which time I was like something out of Gulliver's Travels. For a fortnight I lay in my bunk, an object of mirth to my shipmates, who used to come and gaze upon me and tell me cheerfully that I should be like that for ever. I began to believe all my nurses had

ever told me long ago about what happened to rude boys when the moon changed.

But before that happened three of us, with a couple of sailors, rowed in the whaler to Frederiksen Island, one of the South Orkneys. It is a long thin strip of mountain jutting out of the sea like a backbone among larger islands. It was the kind of day which is rare in the South Orkneys, calm and blue. Giant white mountains flashed and glittered around us while little golden plumes of cloud sat on their summits. The sea was glassy smooth and hundreds of floating palaces and pyramids of ice rocked gently on the swell. Groups of penguins sat on each one, little silent companies riding upon slow chariots of glass. In the water around us they protruded glistening black heads, squawked and disappeared. The water was so clear that we could see them darting swiftly beneath us with rapid strokes of their flippers. Often they shot out of the water on to ledges and shelves of rock orice as though fired out of a submarine gun, leaping several feet at one surprising bound from under the surface.

But on Frederiksen Island which towered black above us, dotted with penguins and streaked with their droppings, there was a commotion at the water's edge. Penguins bickered and fought along the foreshore noisily, pecking at each other and slapping each other with their flippers. Where the water lapped the rocks they stood chattering and bowing. Close along the rocks there slid, in the underwater gloom, a serpent-like form. A smooth evil head that seemed half snake and half cat rose from the water, looked right and left, opened its mouth and hissed. It was a leopard scal and he was hunting. The leopard, they say, makes a single mouthful of a penguin and, with one violent shake, can evert him completely, turning him, as it were, right out of his skin. So that while he was lurking in the shadows no penguin would go into the water. If you watch penguins at the water's edge anywhere you will see them try to coax or force each other, with true gallantry, to enter the

water first lest a leopard seal should be waiting with snapping jaws around the corner.

They were Adèlie penguins on Frederiksen Island. Each wore the black coat and white waistcoat but had, in addition, a black helmet with two eyeholes of white. The chicks, about a foot high, stood about in querulous, complaining groups under the care of the nurses, who rushed at you from afar as you approached and stood squarely in your path, two feet of bristling fury, making violent attacks upon your seaboots with beak and flippers. Now there are two rules which everyone obeys by instinct in the Antarctic. One is "always throw something at a seal," and the other "always tease a penguin." Why these rules should exist I have no idea but no one ever fails to observe them, at any rate at first. Perhaps the reason is that neither the seal nor the penguin can retaliate effectively, although both show every sign of ineffective rage and baffled fury which makes it all the more fun. Accordingly, in obedience to the rule, when one of the sailors was assaulted by an outraged guardian he picked up the poor little bird by one leg and flung it in a high, wide arc fifty feet down into the sea. I knew it was useless to say much to the young man for he was merely obeying a fundamental and deep-seated instinct. Besides, he was really a good lad, so I protested gently and watched the bird circle through the air, feeling a little apprehensive for it as it neared the water, which it struck with a loud plop. I saw it dart with swift, flashing strokes for the shore and shoot out, neither hurt nor shaken, on to a ledge of rock. Then, with slow waddling gait, head thrust forward and flippers held out behind, it made its way laboriously up the slope towards its giant assailant, who was sitting on a flat stone munching a piece of bread and cheese. He had disposed of his adversary and forgotten the quarrel. Anyway it was a grand day. He was interrupted by a series of violent pecks and buffets about the arms and shoulders. Two feet of fury had returned to the attack. In the sitting

position its assaults were less mirth provoking than when standing up like a colossus in thick leather sca-boots. "Blimey!" said the sailor and, dropping his bread and cheese, leapt to his feet. But before he was properly up the bird, having remembered his quarrel for so long, nearly five minutes, could keep it up no longer and suddenly forgot, gazed into space for a moment or two, and then waddled back to his charges where he remained with his head moroscly sunk upon his shoulders, his round, hard eye expressing nothing and his passion spent.
"That's guts, that is!" said the sailor.

The penguin colonics at the South Orkneys cover the steep faces of the cliffs as well as the flat ice-worn rocks near the water-level. Some of their hard and uncomfortable nests are perched high up in places which, with my nailed boots and my hands to help me, I found almost inaccessible. To these perches the industrious proprietors return every year and hatch out their plaintive young. The young die in thousands. Skua gulls swoop incessantly overhead and rob the nests of eggs and chicks when the parents' backs are turned. Many die of exposure or starvation. They stray away from their nests or get separated from the groups to which they are later allotted. Then they wander about disconsolately piping. Other peoples' parents do not want them and peck and slap them as they pass, or chase them away with squawks of rage. So they die and at mid-summer the colonies are strewn with tiny skeletons while the "paddies," white as driven snow, fluiter pigeon-like about, picking them clean. As the chicks grow quills begin to sprout from their dark grey down so that they look uglier than ever. They are then nearly as large as the, by this time, exceedingly bored nurses that guard them. In fact a certain boredom begins to steal over the elder generation as a whole. They go to sea less often and less industriously. They, too, begin to stand about in groups so that there are groups of grown birds standing aloof and uninterested among the groups of chicks. Querulous appeals for food are increasingly ignored and the adolescents can be seen chasing their elders around among the stony wastes of the colony with vain tears. groups of elders moult and become scraggy and unlovely as their children once were. These now, in brand new coats and white waistcoats, take to the water themselves. With the onset of the Antarctic winter, the shortening grey days and the howling snowstorms, when the pack-ice once more clamps the South Orkneys and Deception Island like a vice, the great penguin cities are deserted. The vast black and white multitude puts to sea. Hundreds of miles out in the Southern Ocean they dart and leap through the water, or lift their heads and squawk. In the spring the sea yields them up again in thousands to ledges of rock or beaches of black sand. They return to their cities when the snow melts off them again, revealing once more the hard and cold but infinitely desirable stones, which, bowing, the gentlemen present as tributes to the ladies.

CHAPTER IX

ICE-TRAP

THE wardroom of the Discovery II is on an upper deck in order that the officers may obtain fresh air, which they do frequently and in large doses. It is a commodious apartment panelled in light brown wood with windows on three sides looking on to a narrow deck from which visitors in Dominion ports were accustomed to peer in at the officers at meal-times. Around the walls between the windows are prints of earlier Discoveries and in one corner stands a piano-one of those brave and immortal pianos which, in places where men forgather on festive occasions, do such long and arduous service for so little reward. It is made to fold up, a feat which it not infrequently performs on its own account at inopportune moments. In another corner are volumes of the Encyclopædia Britannica which have settled, with the authority of a High Court judge, many fierce arguments at dinner-time, and here too are those volumes on polar exploration in which you may learn what the calorie value should be of a man's rations when sledging across the Antarctic Continent and all those other technical details which are of interest only to those who propose to sledge to the South Pole. Against the forward bulkhead of the wardroom is a sideboard full of the wardroom cutlery, cruets, playing cards and bottles of Worcester sauce, and, flanking the sideboard right and left, are windows looking out over the forward well deck and the focs'le head.

At the port window on a day in January 1932 stood the Chief Engineer prophesying doom. He was prophesying that during the course of the day we should meet the packice. And the Captain smiled a gentle whimsical smile and said, "Pack-ice, my foot!"

During the long grey days at sea we brought prognostication to a fine art, practising it daily from the comfortable and convenient coign of vantage presented by the forward wardroom windows. There was little else to think about than our daily progress across the featureless wastes of ocean of which those windows commanded such an exhaustingly uninterrupted view. The main turning points of every cruise assumed an immense importance for us, standing up from the dull expanse of similar days like the city of Ely viewed across the plain. We foretold our arrival at the iceedge from day to day and were exuberant if by chance we happened to foretell it aright. On the rough chart in the wardroom, on which our noon positions were marked daily, we performed miracles of judgment with match sticks, spacing them out over the blue vacuity of sea yet to be covered before we should reach our next port of call. this means we foretold the date, or even the hour, of our arrival days ahead with an assurance unequalled by the navigating officer himself. This was called "wardroom" or "match stick" navigation. It was an innocent amusement and kept our spirits up.

In the southern summer of 1931-32 we had been making an oceanographical survey of the grey wastes of water that lie within the Falkland sector of the Antarctic. Outwardly, one would have said, they bore a remarkable resemblance to the grey wastes of water which lie within any other sector of the Antarctic, but they form the richest whaling grounds in the world and abound in the "krill" upon which the great whales feed and whose life history it was our slow task to unravel. We made a series of cruises north and south across these seas, each one with its southern limit at the edge of the pack-ice and its northern limit in warm water in the South Pacific or Atlantic oceans beyond the confines of the Antarctic zone. We were making our last and most easterly cruise southward into the Weddell Sea, confident that at the end of it we were bound for the Falklands and then for South

Africa. But we hoped to get far south in the Weddell Sea and, perhaps, strike new land. So that to prophesy that we were about to strike ice far north outside the Antarctic circle on this day in early January was blasphemy, and we said, "Ice, my foot!"

The pack-ice lies like a skirt around the margins of the Antarctic Continent, covering the face of the Southern Ocean for hundreds of miles with a fringe of floating ice floes. In the spring much of it melts and as the summer advances its northern boundary retreats gradually southwards. In places it breaks up and disappears leaving the sea clear, so that if you are lucky or clever enough to be there at the right time you may reach the coast of the Continent and plant yet another name upon the chart. During the winter in the far south there are periods of calm and intense cold, between the howling blizzards, when the sea freezes in all the countless bays and inlets around the coast and in the open sea itself. Snow, falling continuously upon the water, does not melt because the temperature of the sea is below freezing, so that an even slushy film covers the face of the water. But the sea is never still for long and soon a swell comes and breaks up the young film that has formed upon the surface. If the swell is heavy the film breaks up and disintegrates, but if it is gentle the film remains and is split up into small circular sections like pancakes whose edges become crumpled and turned upwards as they jostle one another. This is the youngest, the earliest kind of pack-ice, "pancake ice." The bows of the ship cut through it easily with a faint whispering sound, leaving a long clear track astern. The swell becomes damped down and rounded as though oil had been poured upon the water. With continuing swells the pancakes jostle one another further and become jammed together in constellations of two, three or four pancakes, all stuck to each other. Snow falling upon them consolidates them into thick solid floes, so that by constant jostling and jamming the pancake ice becomes pack-ice, the slushy cakes become thick circular islands of ice which grow continually. But however thick the floes become, the process of jostling and the accumulation of more snow never ceases, so that they go on jamming together, consolidating and growing until in a short time they become many feet across and many feet thick. In the far south you may see them a mile or a mile and a half across and thirty or forty feet thick, solid and flat, covering the face of the ocean as far as the eye can see.

Thus, for most of the year, the solitudes are guarded by a field of impenetrable ice, hundreds of miles in extent. It is at the mercy of the winds and currents. Its lesser movements are governed by the wind which may collect the floes into long streams with open spaces between them called "leads." But the main movements of the pack-ice are controlled by the currents. With the general direction of the current in the Southern Ocean the pack-ice tends to drift northward away from the coast and away from the regions where it was formed into the far open sea. By the time the floes reach the open sea they are huge and heavy, and now they are thrust against one another with additional force by the great swells of the Southern Ocean. They ride up on one another and pile upwards into towers and pyramids until they form irregular blocks and aggregations of ice.

This is "hummocky" ice—old ice, lumped and contorted by continual battering in the ocean swell. Heavy ice-floes such as these with their jagged and toothed bases projecting under the water, harder than granite, pounding and charging at one another continually, are death to a steel ship and will tear her heart out. But the pack-ice holds other kinds of death for ships. Sometimes the ice is driven by the currents not out into the open sea but against the land. Where the long peninsula of Graham Land points northwards like a tongue towards Cape Horn it deflects a westward current towards the north. This current jams the pack-ice which it carries up against the eastern side of the peninsula

so that here, in the Weddell Sea, there is a permanent icetrap where the sea is covered almost always by old and heavy floes, the accumulation of years. Here, too, the floes becomes piled and built up on top of one another by the constant pressure of more and more ice pressing from the east. Every summer fragments of this old accumulated ice are released and float away north-castwards, but always more is forced against the broken and jumbled mass already fast stuck there and the giant floes ride up on top of one another, piling higher and higher in bizarre and fantastic shapes. In 1915 Shackleton's ill-fated Endurance came into this tormented region and was caught there as between the upper and the nether millstone, between the ice already there and the ice being forced against it by pressure from the east. The pack-ice rode over that lovely ship and crushed her like an eggshell, reducing her to a smothered heap of timber and rubbish, while her brave crew and their leader escaped on to the ice with two boats and watched their ship done to death before their eyes. Here also Nordenskjold's Antarctic was crushed, and in 1911 the German ship Deutschland narrowly escaped by blasting her way out with dynamite, drifting slowly northward with the moving mass throughout a long Antarctic winter. But Weddell, who came here in the middle of the last century, and to whom belongs the honour of discovering this death-trap, the coldest and most perilous sea in the world, found no pack-ice but icebergs many hundreds of feet high and vast multitudes of whales. He never reached the far southern land that Shackleton was aiming for, so that when the Discovery II turned south in early January 1932 and steamed into the Weddell Sea we were not without hope, and insulted the Chief Engineer as he stood at the wardroom window prophesying that soon we should meet the ice.

We had left the fogs behind. Southward there was a line of light above the horizon and the wind blew icily from the south-west, whipping the sea, from which the swell had disappeared, into little waves. They flew in spray over the weather rail and became a sheet of ice. Brown and white Antarctic petrels flew busily around us—forerunners of the pack. Soon upon the southern horizon, under a broadening streak of clear sky, there stretched a white line.

We felt that perhaps, after all, we had been wrong. We took the wind out of the Chief Engineer's sails by admitting that here, perhaps, in actual fact was the end of our attempt to make, like Weddell, a voyage towards the South Pole. But it was sad that the attempt should have ended so soon. The Captain, however, was not prepared to admit defeat so early as this. He turned a mild blue eye upon the advancing whiteness, drew from his pocket a flat tin of cigarettes which he always carried and, with deliberation, as was his habit, selected one. "Can't help it," he said, "I don't believe it. Slow ahead."

Soon little lumps of ice, worn into fantastic shapes, like tiny boats and like swans, covered the sea in all directions and went bobbing past the ship's side. Among them floated other lumps, the remains of old floes undergoing a lingering disintegration on the very fringe of the pack-ice belt. They stood three or four feet out of the water and were built up into shapeless masses, eaten away where the water lapped around them. They rode up and down upon the swell and the water ran into the crevices it had made in their sides with a swishing sound. We passed among these lumps of ice easily all day and in the evening the wind dropped, leaving a gentle oily swell, on which the jumbled fragments of ice heaved rhythmically up and down. The sun declined in a long flaming twilight against which stood a giant flat-topped iceberg, a hard, dark silhouette. There was utter silence. Brown and white Antarctic petrels and pure white Snowy petrels flew swiftly and noiselessly around the ship. Sometimes you could hear the soft swish of the swell eating away a hollow in some doomed fragment of ice.

We steamed southwards for a week. Streams and lines of

scattered ice lay across our path but we pushed easily through Giant castellated icebergs, white like marble, holding all the blue of sapphires in their caves and crevices, rode past us, skirts of foam about their feet. The sun shone out of a clear sky often stippled with mackerel clouds. The Captain was mildly triumphant upon the bridge and there arose before us visions of that ice-bound southern land and of the new names we would write upon the chart. We might, we thought, even reach the channel which was supposed to lead through from the far south of the Pacific Ocean, called the Bellingshausen Sca, to the Weddell Sea and which, it was said, cut off Graham Land from the Antarctic Continent, making an island of it. Sir Hubert Wilkins, in 1928, had peered at the mountains of Graham Land from an acroplane. He reported that southward they gave way to a white vagueness which he took to be a strait cutting off the peninsula from the rest of the Continent. He called it the Stefannson Strait. Somehow we had the idea of the Stefannson Strait before us as we steamed southward into the Weddell Sea. It stood before us like a mirage and drew us on. The streams of ice across our path increased in thickness and the floes became heavier. Under them the sea seemed to be breathing gigantically as the swell lifted them. But between the streams there were long "leads" of open water glittering in the sunshine.

Despite our triumph, which was moderate in those of us who were wise and grossly immoderate in me, we inwardly, though we would not admit it, feared the final end of all our hopes whenever a stream of floes stood across our bows. When the ship slowed down and passed through them with a gentle bump and a long grating sound as the ice scraped the hull, we began to foresee our disappointment to-morrow, or the next day, or, if not then, on the day following.

It came in 70° south on a lovely still cold morning under a cloudless sky. Across the south there stood, beyond all possibility of doubt, a wall of piled-up, heaped and contorted

ice with bergs like towers and castles islanded among it. It was like some endless white city seen from a distance. It was impenetrable pack-ice and at last and with justice we said, "I told you so."

Among the pack-ice in the far south at mid-summer the scene is often one of dazzling and placid beauty, serene and calm beyond description. The sun strikes back from the whiteness with a brilliance that hurts the eyes. The great floes heave slightly in what swell there may be and, if you listen carefully, you can hear a whispering, a faint clink, as they knock against each other. It is like an indistinctly heard and uncomprehended speech. Here and there lie seals stretched motionless upon the floes, sunning themselves. They spring into life and wriggle to the edge of the floe when They spring into life and wriggle to the edge of the floe when the ship is almost upon them, hissing their indignation with wide open mouths as they slide into the water. Antarctic and Snowy petrels fly busily about but the albatrosses have gone long since. They do not venture farther south than 56°. Groups of penguins stand about on the floes and dive in the open pools. Sometimes, solitary upon a floe, you may see a bottle-shaped Emperor penguin, standing with his beak upraised and his flippers stiffly beside him. As the ship approaches he slides away across the floe upon his breast, committing thereby a sudden and astonishing indignity. He propels himself away across the ice with his indignity. He propels himself away across the ice with his flippers as though he were canoeing. Presently he flops into the water and is gone, leaving only the trail of his progress behind him on the ice. Often you will see the spout of whales burst up suddenly among the floes, each one followed by the long curving back and fin turning slowly like a great wheel. It is strange how the pack-ice imparts a kind of topography to the face of the ocean. It gives to it an inhabited land-like appearance, like a white city, and, all around, the icebergs great and small stand like fortresses guarding the silence. And yet all this serenity and brilliance may be blotted out in a few hours by a leaden

greyness and the world become a mass of flying snow and hideous with the shriek of the hurricane.

Into this still and placid world, like a gigantic frieze sculptured in marble, we came on the day following our meeting with the wall of impenetrable ice in 70° south. No ship could have gone through that. A stout ship with a wooden hull might, perhaps, have made some progress by waiting and pushing where and when an opportunity offered itself, but for us it was out of the question. The Discovery II is a light steel ship with double plating forward below the waterline and baulks of timber thwartships in the bows. She has a stouter stem and her frames are closer together than usual but that is all the protection against ice that she has. Further, there are large spaces within her, her capacious holds and her fine engine-room amidships, which are a standing danger to her among ice and make her fragile as a cardboard box. And then there was the question of fuel to consider. The supplies of fuel in the tanks, ample though they were, were not unlimited and did not allow too large a margin to risk. The tanks carried oil fuel for a cruise of about thirty-five days. When we reached the end of our southward journey and were face to face with impenetrable ice we had been at sea over a fortnight. There was fuel for about a fortnight more. This influenced the Captain's next decision. He must turn north since the way southward was barred. He might turn due north and return the way we had come but we were making an oceanographical survey and, for scientific reasons, it was desirable to make observations in waters other than those we had just passed through. So that it remained to turn north-east along the eastern side of the Weddell Sea and the unexplored coast of Coats Land, or north-westwards towards the South Orkneys and South Georgia where we could refuel. To turn north-east would take us far from our base, perhaps another week's steaming westwards against wind and current in the Southern Ocean. It is easy to be wise afterwards, but at the time it looked also as though our way eastwards was barred, for all across the eastern sky there stood the white glare that denotes ice. But westwards on that lovely cold, bright day the sky was azure and on the clear field there floated little white clouds. So we turned north-westwards towards the South Orkneys, towards the ice-trap, the place of doom for ships where mills of ice grind eternally and in silence.

For four days there lay around us a limitless field of floes, heavy and motionless. No swell lifted them. stood among them, castles and palaces, with caves admitting foam. Between the floes wound narrow leads too small for the ship to turn in. On the bridge the Captain and his officers, in fur helmets and duffel coats, searched the horizon. Sometimes blue sky and white cloud met the white horizon but at other times the sky was a flat and even grey. In the pack-ice you take a darkening of this grey sky above the horizon to indicate a possibility that open water lies that way. And the sky darkened always towards the west. Towards this "water sky" we pushed slowly for four days, nosing our way between ponderous floes whose sheer sides stood three or four feet above the water. Looking over the ship's side you could gaze down into still, dark depths utterly clear where the sides of the floes went down into darkness beyond sight. The hopeful "water sky" drew us on like a "fata morgana" for the floes grew thicker and thicker still with mounds and sastrugi upon them carved by the wind. Daylight was continuous and the long twilight of evening passed slowly into the long twilight of morning. Sometimes the propeller thrashed the water for a long time ineffectively under our stern. Then we would go astern a little so that the ship drew her nose out of the V-shaped place she had made for herself in the great mass of ice under her bows. Gently she would bear down again upon the floe, rise up a little on it and halt while the propeller raced once more and the giant mass moved slowly aside. Thus painfully and slowly we made half a mile every hour or so.

Great icebergs stood around forlorn and indifferent to the struggling microbe that had come among them. These, unlike the pack-ice whose local movements were governed by the wind, were moving with the current. Such wind as there was blew from the north-east and was opposed to the current so that the bergs were driving slowly and relentlessly through the floes. Each berg piled up the pack-ice with irresistible pressure in front of itself and left behind in its wake a clear open patch of water. As far as possible we made courses from the lea of one iceberg to the lea of the next so as to profit by these open pools, but one of our greatest dangers was that we would become jammed in front of an advancing berg, for then the piled-up floes would ride remorselessly over us as the berg pushed them slowly and irresistibly forward. But, in any case, the pack-ice itself carried dangers for us that may well be imagined, for the process of squeezing the ship slowly between floes involved danger from the jagged teeth and crags that stuck out from them under the water, waiting to rip up the fragile steel hull like paper. As the ship pressed slowly forward the giant islands of ice swung together behind her like gates so that from the poop it was impossible, looking astern, to imagine how we made any progress at all for the ice looked as massively interlocked behind us as it did ahead. There was the danger, too, that in going astern the ship would ride backwards with all her weight on to a floe which had swung in behind her and, in so doing, would damage the propeller or the rudder. We gave ourselves the illusion of counteracting this danger by trying to push the stern of the ship off the floes with stout wooden poles. All spare hands were on the poop or the after well deck, three or four men to each pole. When the engine telegraph rang "astern" we planted the ends of our poles on the ice over the poop rail and pushed on them with all our strength. To me this always seemed a somewhat ineffectual procedure for, sweat and strain as we might, the ship rode backwards irresistibly and remorselessly

on to the ice until it seemed that the rudder must strike against it. But in answer to the "ahead" signal she always swung clear again and we strained some more on our poles, grunting and panting. As the space of water between the hull and the jagged edge of the floe widened we had the comfortable feeling that we had pushed the floe away. We did this all day, performing prodigies of physical energy, leaning back on our poles and planting our feet, for leverage, on the poop rail.

On the fourth day, when our clocks told us it was evening (for there was no other indication), the sun veiled itself behind a blank cold greyness which showed the white glare of ice above the horizon whichever way one looked. The periods during which the screw thrashed ineffectively in a pool of water beneath the counter, and during which we strained with our poles over the rail, grew longer and longer. Sometimes for half an hour we made no progress and then moved forwards a few yards, only to begin again lashing the imprisoned water astern of us into a fury. Penguins hopped out of the pools on to the floes around the ship and stood about uncertainly in groups watching. Inevitably they were greeted with a shower of missiles and shouts of laughter as, forsaking dignity, they propelled themselves away on their bellies, only to return in a few minutes, their curiosity unabated.

On our port beam there stood a large tabular iceberg, dark against the glare above the horizon. Hanging over it was its own glare, a streak of white in the grey clouds. Others stood around farther off, each under its canopy of white sky. The second mate took bearings upon them all every quarter of an hour with the range-finder.

The second mate was a stocky little man of terrier-like and aggressive cheerfulness. He had a short red beard of the Captain Cuttle variety and his cheeks were suffused with myriads of tiny red veins which, he cheerfully asserted, were the result of drinking gallons of beer. Above the beard and

the suffused cheeks were two exceptionally bright and intelligent eyes where laughter stood perpetually. Dick had two mottoes which were his guiding stars in a life which sat very easily upon his shoulders. One was "Try everything once," and the other was "Nothing matters. It will all be the same in a hundred years." The former of these spurred him into experiences which I myself would have required fabulous monetary inducements to undergo, such as taking part in a steer riding contest at Port Stanley without ever having been on the back of a horse or, indeed, any other four-footed animal in his life. Or such as diving beneath the hull of the Discovery II at South Georgia in a diving helmet of very doubtful trustworthiness. The second of his two mottoes helped him through every situation imaginable for, no matter what major or minor predicament Dick found himself in, he laughed a Rabelaisian laugh, stuffed a broken pipe full of some astonishing compound, and said it was "all immaterial anyway."

Looking at the iceberg through the range-finder Dick announced that it had moved a mile towards us in the last hour. It hardly mattered really, however, since it would not become of much danger to us for at least another two hours or more, and before then the ice might open and let us get out, though to everyone except Dick nothing seemed more inconceivable. Or we might manage to move on a bit so as to let it pass across our stern. Anyhow it was nothing to worry about really.

But the Captain took a different view. For the last hour we had been pounding the water astern, moving a foot or two forwards, drawing back a foot or two, and then moving a foot or two forwards again a little to the right or left, trying to nose our way gently forward without damaging the hull. In the last two hours we had gone perhaps half a mile and now we seemed to be stuck faster than we had been yet, jammed tightly in a narrow crack. A wilderness, death white under a death white sky, stretched into illimitable

distances, terrible and lonely, on every hand. It was snowing slightly, little hard grains of snow that slanted on to the deck and blew about in eddies. Three miles away to port an irresistible and implacable enemy was slowly bearing down upon us, pushing before it in a jumbled mass a heap of contorted ice. And already the ice was fissured a little along our port side. It had begun to press against the ship. "We must get out of this," the Skipper said.

He made up his mind to charge the ice ahead. It meant risking damage to the hull but to remain where we were meant almost certain destruction. Already the pressure on her port side was causing the ship to list over to starboard.

Dick catted up the anchors, removing them from their haws'les and lifting them by means of tackles on to the foc'sle head so that they would be in no danger of striking against the ice. This was a long business. It snowed heavily as the men worked and we could only dimly, through the murk, see their figures moving to and fro upon the ice around the bows and hear Dick's voice shouting orders. When the job was finished he came into the wardroom laughing and stamping the snow off his boots. The ship had now an aldermanic appearance as if she wore some kind of decoration slung about her, for her anchor cables led out of the haws'les on each side and were looped up on to the deck. She was now listing considerably and along her port side the ice had raised itself into a long fissured ridge, a pressure ridge. A sapphire blue light seemed to burn coldly within the fissure. The berg was driving down upon us without any change in its position becoming apparent to the eye. The telegraph rang, "Half astern," and slowly the ship drew back. Then "Half ahead," and she bore down upon the ice under her Her fine stem rose up, shuddered and sank down. She came to a standstill, listing to starboard, her screw thrashing astern. But out into the floe ahead there ran a dark crack and the ponderous mass of ice moved forwards and round a little. There was now a slightly larger space in which to draw back and a second time the ship bore down upon the ice with an impact that almost threw us off our The floe moved again and smaller fragments whirled round in eddies behind it as it turned. The ship drew back and charged a third time. In the space that she had cleared for herself she gathered greater speed. As, for the third time, she met the ice there was a splitting, rending explosion and a fang of ice beneath the water-line drove clean through her side. In the wardroom we grasped hold of tables, chairs, of anything near us and of each other and looked at each other saying, "That's done it!" Out of the wound in the ship's side, into the pool of water she had cleared for herself, drained her life's blood-her fuel oil. It welled up from beneath the water-line and spread in a many coloured irridescence upon the small clear space between the ship's side and the ice floes. But the floe ahead had moved round slowly and a small alley of water had opened before the bows. Bleeding darkly on to the ice, the Discovery II limped through the narrow gateway she had opened for herself. She was wounded but free for the pressure had been removed from her and she listed no more. It was evident that the berg would pass across her stern. The place of danger she had left lay soon a quarter of a mile behind her, marked by the trail of black oil across the ice that led from it, by the trampled snow upon the floes, by a heap of potato peelings thrown over the rail by the cook and by a packing case marked, "R.R.S. Discovery II, St. Katharine Dock, London." Next day our enemy lay on our starboard quarter, utterly indifferent, remote and forlorn—an iceberg going on its lonely journey to a lingering decay. Dick waved his fur-lined cap to it.

"Sorry, old chap," he said. "Better luck next time."

CHAPTER X

ESCAPE

It was Rudolf's birthday. Rudolf was the Third Mate. He had been carpenter in Scott's Terra Nova and had been responsible for building the winter quarters of the Scott Expedition at Cape Evans, so that on the old uniform coat that he wore on watch there was the soiled remnant of a white ribbon. But he gave his advice seldom and for that reason was perhaps more respectfully listened to than most of us—especially as what he said was almost always right. He had joined the expedition as bo'sun in the Committee's other ship, the William Scoresby, and had risen to the command of her. Thence he had become fourth and eventually third officer in the Discovery II.

On the morning of his forty-seventh birthday Rudolf's luck seemed to be against him. From where he stood on the bridge he could see nothing but an unbroken plain of ice, flat as a billiard table, stretching under a grey sky to the horizon on every side. For the character of the ice as we had moved slowly north-westward during the past fortyeight hours had undergone a remarkable and horrifying change. The vast floes were a mile to a mile and a half in diameter and the narrow spaces between them were covered over by a thick film of new slushy ice, glutinous in consistency, which held the ship as though she were moving through porridge. To steer her through this was a matter of appalling difficulty, for the edges of the hard floes were often invisible and it was impossible to tell which was solid ice floe and which was the slush between the floes. world in which Rudolf found himself on the forty-seventh anniversary of his birth was a flat, white, featureless disc of which the ship was the centre. Black oil fuel still bled out of the wound in the ship's side as she made her cautious, slow

and painful way forwards, but, as the tooth of ice had torn its way through the plates fairly high up, a proportion of the oil in the starboard fuel tank would remain and would not be lost.

In spite of the unpromising outlook, however, Rudolf was not displeased with the progress he had made during the four to eight watch. In the four hours we had gone nearly two miles, by backing astern and pushing ahead, and no further damage had been done. I had been lying in my bunk most of that watch, sleeping only fitfully and listening to the engine telegraph ringing constantly and to the heavy vibration of the screw thrashing now ahead and now astern. Close to my ear was the continual hoarse scrape and rasp of the ice against the side of the ship. I dressed and went out on the poop. The watch was there with ice poles, beating their hands against their heavily-clad bodies to keep them warm, and drinking strong ship's tea, like pitch, out of enamel mugs. There was a small clear space of water round the ship but, some three or four yards from the rudder, there stood the sheer side of an ice floe perhaps six feet high out of the water. It went down into dim depths where you could see the shapes of ugly projecting fangs. This pool of water extended round the sides of the ship and was the only such pool, apparently, for miles. Rudolf had seen it half a mile away and for the last hour had been laboriously making for it so that he might have room to swing the stern of the ship within it and get her nose between the surrounding floes. As we hung over the poop rail looking at this gloomy space of black water, I saw that where it ran into little bays and crannies in the icy walls around its edge it was filming over like a mirror that is breathed upon. Very slowly, barely perceptibly, as I watched, the film was spreading inwards from the edges. The pool was freezing over before our eyes.

In the engine-room, among gleaming brass and steel and silently revolving dynamos, the Second Engineer, who was inevitably a Scot, was about to come off watch. It had been a trying four hours for he had never once been able to leave

the throttle valve or take his eyes from the dial of the engine telegraph. He was looking forward to his breakfast, for, revolting though dry hash and bacon may seem when you face it after all night in your bunk, yet, after four strenuous hours in the engine-room, you cannot imagine anything more delicious. It was five minutes to eight bells. Rudolf rang "slow astern" so as to swing the bows round a bit, gave her some helm and rang "slow ahead." The Second Engineer, hoping it was the last time that watch, took hold of the throttle valve to put his engines ahead. The throttle had jammed. It would not move.

Leaning over the rail of the poop we saw the stern of the ship sit slowly back upon the ice floe. Slowly the stout steel rudder bent round through seventy degrees, twisting the ponderous rudder-stock as though it were made of butter.

The telegraph rang again and the ship stopped. Rudolf and the Second Engineer came into the wardroom together for their bacon and dry hash.

- "What's the matter with your engines?" said Rudolf.
- "The throttle jammed."
- "Well, we've bent the rudder-stock and she won't answer the helm. What's more, this pool's freezing up. What now?"
- "Bacon and dry hash now," said the Second Engineer, and many happy returns."

We were a hundred miles or so east of the place where the *Endurance* was overridden by the ice. The danger of pressuring here was perhaps less than it was for her but we were a steel ship. Further, if we were beset long in this position the drift of the current, which was north-westerly, would carry us into an area where the danger would be much greater. Even in our present position the action of wind and current, driving the floes against our frail sides, might easily be sufficient to crush the steel frames and burst the plates asunder, causing a fatal leak. Also there were other problems for us. For the officers there was the problem

presented by the fact that the little dark pool of ice in which we now lay was rapidly and visibly freezing over. It was snowing, so that before long we should be not in a pool of water but in a bog of glutinous slush, half ice and half snow, stuck like a fly in a jam pot. Further the pool was closing up, for gradually the space of water, covered with black oil fuel that still bled on to it from the wound in the ship's side, was diminishing in size as the wind blew the floes together. Ceaselessly, but almost invisibly, the giant interlocked iceislands were shifting in relation to one another. The evanescent geography of the pack-ice changed minutely every hour. The problem, then, was how we were to get out of this place if, and when, we were once more able to get under way, and how, if ever, we were going to get to the open sea with an improperly steering rudder, or a jury rudder, and with our supply of oil-fuel now becoming seriously diminished. For the engineers, again, there was firstly the problem of the rudder itself. Would it be possible to get it repaired, or would it be necessary to rig a jury? And, secondly, could either job be done before it became impossible to move the ship out of her present unhealthy position. Inspection that morning showed that it could be repaired but that it would be a long job, but as to the second part of the engineers' conundrum, the answer was on the knees of the gods. After breakfast the engineers got to work. The rudder worked upon a toothed quadrant forming an arc of a circle. The rudder, now bent round to port at an angle of seventy degrees, could be brought back to the 'midships position and made to engage part only of the quadrant instead of the whole of it. Although it would not steer properly in this position it would be better and more manageable than a jury, but there would be continual danger that it would become disengaged again from the quadrant. If that happened in rough weather in the open sea, supposing we ever reached the open sea, it would be exceedingly difficult to set right. Further, when the helm

was to port the rudder would be in the 'midships position and it would be impossible to steer more than a few degrees each way.

In order to bring the rudder back amidships the ship must be moved forward since the rudder was at present jammed against the ice. Accordingly that morning Dick and all available hands carried out a kedge anchor and made it fast to the ice on the starboard bow. By heaving on it with the capstan and going ahead with the engines at the same time the ship was moved forward enough to clear the rudder and enable the engineers to get to work. I was delighted to be able to help with the kedge anchor for I felt that my rôle of spectator in all this was an undignified one. I helped with a pick-axe to dig a hole in the ice so that the kedge could get a purchase, and in so doing I earned honourable wounds for I quickly raised large but satisfactory blisters on my hands. Nevertheless the hole that I had helped to dig was not a very good one for, at the first tautening of the wire, the anchor leaped from its grave and slid away across the ice amid shouts, so that we had to begin all over again.

The engineers worked all day in the steering flat beneath the poop, though we could see nothing of what was going on except the "Spanish windlass" rigged upon the poop deck for turning the rudder-stock back into position. While they worked the scientists and the rest of the ship's company had their own peculiar problems to solve. The scientists' problem was not a new one. It confronted us on every occasion of this sort. It was this-" How can we go on with our daily job as though nothing unusual were happening?" It is perhaps the most difficult thing in the world to be a spectator at something which, while it concerns you closely, has yet nothing to do with you. Our present situation could hardly concern us closer, and, later in the day, when the engineers began to doubt whether they could finish their work before the pool closed up, it seemed to concern us closer still. And yet, since the handling of the ship was not our job in any sense, there was nothing whatever that we could do except go on with our work in the laboratory as though nothing unusual had occurred. I found that this hardly fitted my mood so I went below to my cabin. Here there were rows of books, old newspapers and letters, three months old, from home. I read a letter from home telling me that my mother's cocker spaniel bitch had produced a litter of puppies. It was humanizing and made the sinister silent whiteness outside seem less real. Afterwards Rudolf cut my hair in the cabin flat near the hatchway that led down to the fore hold. Snipping away at the back of my neck and mingling cigarette ash with the hair upon my shoulders, he pointed to the dark space of the fore hold, full of packing cases of provisions, and said that if the ice had penetrated two feet farther forward it would have gone into the hold instead of into the fuel tank and we should have sunk like a "From what I can see there seems to be a chance yet," I replied. By noon there seemed to be an even better chance, for the engineers were finding it a harder job than they had expected to get the rudder-stock into contact with the quadrant again. The question of sending an S.O.S. was discussed but we knew that the nearest ship was a Norwegian whaling factory, a steel ship like ourselves, and that she was three hundred and fifty miles away. She had told us by wireless that she was in open water but how much pack lay between her and us there was, of course, no guessing. In any case she would have had no chance of getting to us. "Anyhow," said Dick. "This is nothing. Why worry?"

The majority of the ship's company were not worrying. For the sailor in his focs'le life consists of food at regular hours, work in regular watches and a dry bunk in the watch below. Whether the world outside were a toppling grey sea or a flat, unbroken, horrifying whiteness, an utter stillness, as it was now, made no real difference. So that the problem in the focs'le was not concerned with the rudder or with the prospects of getting the ship out of her predicament

but with what was for to-day's dinner. The only really serious predicament that could be envisaged would be another lot of soup like yesterday's. In the afternoon they played football on the ice and snow-balled each other round the ship, leaping across the treacherous cracks between the floes. I reflected that the apparently insatiable and irresistible desire to kick a football is one of the most astonishing characteristics of our race and a source of justifiable amazement to the foreigner. For here on the Antarctic pack-ice, two hundred miles at least from the nearest land, in sixtynine degrees south and with fifteen hundred fathoms beneath them, they kicked it with as much zest as on the local ground at home. With the same enthusiasm, they say, they kick it on the scorching sands of Aden beneath a blazing sun, or amid Jamaican palms. Thus, too, they kicked it on the stricken fields of France. And everywhere they kick it to the accompaniment of the same guffaws, the same rude jests and cheery blasphemies at the expense of some." Nobby" Clarke, or "Dusty" Miller, some "Little Tich" or "Lofty." If you walked for a few minutes in any direction from where they were kicking it now the ship diminished into a tiny thing amid infinite wastes, their laughter and shouts became little thin noises in the midst of a silence which they only seemed to intensify. Little eddies of driven snow whirled about your feet.

By six o'clock in the evening the space of water on the starboard side of the ship had diminished from ten or fifteen yards to five or six feet. Its surface was filmed over with a thick scum of slushy new ice blackened by fuel oil from the ship's side. The bows were wedged within a V-shaped clamp of ice and the move forward that morning had jammed them still farther in while freeing the stern. Looking at her from a little distance away on the ice I could not imagine how she would ever move again, for she seemed beset beyond hope. The engineers doubted whether they could get the repair done before the morrow. "It looks," we said

to one another, "as though we should have to get out and walk." From the galley came the cheerful noise of the cooks and of the focs'le "peggy," seventeen years old, fetching the crew their tea. The men were going for'ard now, hungry after working on the rudder-stock or after playing football. They laughed and whistled and, in the focs'le, we heard the sound of the harmonica. They were singing the "Lily of Laguna."

It was customary, when one of us had a birthday, to pass the port in his honour at dinner. It was the rule that we drank nothing at sea but when there was a birthday the rule was relaxed somewhat and the drinks were, for the day, "on" the member of the mess whose jubilee it was. That day, January 22nd, 1932, beset in the pack-ice of the Weddell Sea, in sixty-nine degrees south, at least three hundred and fifty miles from the nearest ship and nearly a thousand from the nearest human habitation, the drinks were on Rudolf. The port was passed at dinner though the places of the engineers at the table were empty. The Captain knocked on the table with a napkin ring engraved with the names of his past ships and said, "Rudolf. Many happy returns." Rudolf hoped for happier returns than this and passed the port again. After dinner we played vingt-et-un to pass the time. Every now and then you saw somebody's eye wandering away from his cards to the menacing desolation outside the wardroom windows. When I took the bank I often found that the players' attention was not on the game when I asked how many cards they wanted. Once we felt the ship give a sudden shudder and put down our cards for a moment, saying, "What's that?" The Old Man did not play but leaned against the sideboard that contained the cruets and the Worcester sauce, a glass of beer in his hand, watching us. He saw nothing of the game. Frequently he turned to look out of the windows and every now and again went out on deck to stare down at the narrowing channel of water along the ship's side and the vice-like jaws of ice that were closed upon her bows. As the time drew on towards midnight, without any lessening of the blank daylight outside, our game of cards became more and more desultory. There were long intervals during which it was forgotten altogether while we discussed possibilities, half jocular and half serious. How long could one expect to last on an icefloe before it broke up? Were there any sledges or sledging provisions aboard the ship? If we were to reach Graham Land or Joinville Island what were the chances of our being picked up? To all these questions Dick answered readily enough and made light of the situation until we became impatient and told him not to be such an ass. I wondered how the boys of seventeen and eighteen, now asleep in their bunks for'ard, would get on. The Doctor wondered whether he should send a wireless to his wife. The Old Man said nothing but went again on to the deck to gaze down at the oil-covered strip of water, now quite frozen over with a film of slush, and at the vast field of white that lay around us waiting.

Soon after midnight the Chief Engineer appeared in the wardroom. He wore dungaree overalls and his hands were covered with black oil. There were smears of oil upon his face which glistened with sweat. "It's done," he said. "We can get under way." We jumped up from the table and the cards were scattered upon the deck.

All hands were called out and we worked all the rest of that daylight night. We carried kedge anchors out on to the ice on either side of the stern of the ship and heaved upon them with the main winch. Everyone lent a hand—scientists, stewards, cooks, firemen—heaving on wires, manhauling the heavy anchors across the floes, hacking holes in the ice to give them purchase. As the main winch clanked, pulling taut the trawling wire to the two kedges made fast in the ice, the engines went full astern so that in the narrow space of dark water beneath the counter the screw thrashed up a whirlpool of foam. It was three hours before the ship

moved. Then slowly she drew back and the ice made a rasping sound against her sides while her bows drew out from the jaws of ice that held them. "Half speed ahead!" She bore down again upon the ice floe, moved forwards into it, shuddered and halted, and again we carried the kedge anchors out astern. But by breakfast-time, twenty-four hours after the damage to the rudder, we were on our slow way once more, backing astern, charging ahead, thrashing the water ineffectively for long minutes, and sometimes for half an hour or more, without moving. Yet we made progress. Twice the rudder-stock slipped off its quadrant and we had to wait for two or three hours while the engineers repaired it. But the ice was getting looser. There were patches of black water between the floes and the floes themselves were not so vast. There was no longer a glutinous mass of new ice between them but clear water, and some of them were built up into pinnacles and turrets which showed that at some time they had been under the influence of the ocean swell. We moved forward, still painfully and slowly, among them for two days and two grey daylight nights. We had escaped the fate of the Endurance.

Eight days after our meeting with the wall of pack-ice in seventy degrees south the Chief Engineer stood again at the wardroom window. He was prophesying salvation. There was a swell coming through, he said, and foretold with assurance that within twenty-four hours we should be free of the pack-ice. Sure enough the floes were moving up and down very slightly, hardly perceptibly, a matter of inches, in relation to each other. Waves of sluggish motion bore through the ice towards us out of the north. We could have seen no more welcome sight than this breathing movement of the ocean beneath its clothing of ice. It was like the return of life to a body believed dead.

The Chief Engineer was right. Twenty-four hours later, on a grey sullen morning, a black mass of cloud stood ahead of us on the horizon—a fine "water sky." The floes had



drawn apart from one another and heaved rhythmically up and down upon the swell that rode through them. pitched once more in the familiar manner and at the midday meal the fiddles were on the table again. That evening under a leaden sky the Discovery II slid joyfully from the pack-ice into the open sea. She was listing heavily to port, her rudder-stock was bent, her frames on the starboard side were bent inwards and the plates buckled. Her starboard fuel tank still leaked a thin black smear into the water. was nine days since she had r the pack-ice in seventy degrees south but it had seemed like as many years. She was the first steel ship to penetrate thus far into the Weddell Sea and the sixth of any ship, steel or wooden. Of the five before her, two-the Endurance and the Antarctic-had failed to return, and two-the Scotia and the Deutschland-had but narrowly escaped. The Discovery II could add her name to these. Pitching heavily in the head-on swell she stood to the Brown and white Antarctic petrels fluttered after her. Far off there hung for a second the high thin spout of a whale.

CHAPTER XI

EIGHT BELLS

It is ten minutes to eight bells. In the wardroom dinner is nearly over and we sit at the long table holding our cups of coffee in front of us upon a cloth that bears the stains of previous meals. With the ship rolling so heavily the most intense vigilance cannot prevent tea, coffee and soup from overflowing and making stains which remain for weeks eloquent of past storms. The fiddles on which our elbows are squared are fitted with brackets for holding glasses, for the pepper and salt and for the carafes of water (in which there is a fine brown suspension from the tanks) but there are no brackets for the cutlery, so that knives, forks and spoons clatter about within the confines of the fiddle throughout every meal, making an infuriating rattle as the ship rolls. Now, however, the stewards have cleared them away and we sit with our elbows squared, sipping little cups of black mud. Convention, I suppose, decrees that we must end the evening meal with this concoction which bears no resemblance to coffee for we feel that each little white cup, badly chipped around its blue rim, is a symbol of a more civilized way of living.

It is any evening during the voyage of the *Discovery II* round the Antarctic Continent in the winter of 1932, or, indeed, any evening at sea during one of the innumerable cruises on oceanographic survey which she has made in Antarctic seas during the last seven years.

The voyage round the Antarctic Continent should, I feel, have a chapter to itself were there anything with which to fill a chapter in that apparently interminable procession of short grey days and long uneasy nights. The memory of those weeks at sea has now become somewhat blurred for me and remains only as a colourless monotone, a flat uniform

grey of tossing sea under a low pall of cloud by day and pitch blackness by night, of continual and endlessly repeated routine in every kind of weather hundreds of miles from any land. There was no romance or glamour attached to that circum-polar voyage. We carried no sledges and saw no land. We added to the British Empire no bleak strips of rock and snow. We carried no dogs except a poor little mongrel puppy which wandered aboard in Auckland and was adopted by our soft-hearted Third Engineer. We carried no aeroplanes. So that our voyage found no place in the headlines and remained unsung. There was nothing, after all, to sing about. We left Cape Town in April and steamed south-eastwards to the ice-edge near Enderby Land. When within seventy miles of that inhospitable coast we turned north-east and slowly exchanged the grey skies for the benediction of a gentle but warm sun. We touched at Fremantle where they drove us through mile after mile of grizzled forest, smoking in a dozen directions with forest fires. Thence we made another trip southwards to the iceedge and turned northwards again to Melbourne. During that trip it was mid-winter. In the far south a grey daylight struggled to life about eleven o'clock in the morning, only to give up the struggle again about three in the afternoon. The rest was pitch black night through which we wallowed uneasily amid we knew not what dangers. Sometimes there was a moon but her face seemed different and unfamiliar and even more cold and forlorn above the Southern Ocean than the moon we knew at home. rode more distantly among the snow-filled clouds. Sometimes, again, the night clouds drew apart and there hung above us in splendour the Southern Lights. Draperies and curtains, fold upon fold, of pale light shifted and changed above us while the stars shone through them with diminished brilliance. In Melbourne we stayed six days and lay near the proud Orient and P. & O. liners. The public swarmed aboard the Discovery II on the Sunday evening when we arrived and ordered themselves drinks in the wardroom. They made love in our cabins. Three elderly ladies pulled aside the curtains of my cabin and diverted themselves with the spectacle of a scientist dressing. Melbourne is Anglo-American, full of milk bars and super-cinemas and we left it gratefully for the ice-edge again, returning to Auckland where we refitted. From the sea, Auckland-"loneliest, loveliest and last "-looks like the background of an Italian painting. A hundred little green conical hills are dotted in the middle distance against a background of mountains. great extinct cone like Vesuvius guards the entrance to the harbour whose blue waters are studded with white sails. On one of the highest of the little hills above the town stands a noble building in the Greek style, a modern Parthenon, looking out across the bay. It is the war memorial museum, a thing of beauty, white against the blue sky. We left New Zealand in September and steamed south-eastwards to the ice-edge again, making a W-shaped course across the South Pacific. Early in October, after battling with mountainous seas in that dreaded ocean, we passed into the shelter of the Magellan Straits under the shadow of Mount Sarmiento, lovely and remote, and came to Magellanes, the most southerly city in the world. Here a few English shillings bought Chilean pesetas enough to make us rich for a day beyond the dreams of avarice. And since they were useless elsewhere we spent them at the famous Cosmos Hotel, the scene of so many roysterings when the exiles from the sheep farms out back come roaring into town.

It is ten minutes to eight bells on any evening during any of those months when we ploughed around the Southern Ocean. In ten minutes the ship will be stopped for scientific observations so that I must leave my cup of coffee (cold by now, anyway) and put on sea-boots, thick pilot-cloth coat and red fisherman's cap, an incongruous costume in which I always feel that I am a walking falsehood. It is all the more difficult for me to leave the wardroom and gird on my

armour since Dick has been in particularly good form this evening. He has been telling his oft-repeated and now famous stories which have so often enlivened meals that would otherwise have been passed in stony and depressed silence. It was always a matter of astonishment to me how he managed to retain his bright and lively twinkling eye among so many eyes that were dull and unresponsive, and how it came about that his gusty laughter from behind the short red beard never diminished as grey days grew into weeks and the weeks into months. This evening, amid bursts of his own laughter, he has been telling the story of the King of Nauru who was crazy about drift bottles and pep-pered the sea around his little kingdom with them, offering to anyone who might bring one of his own drift bottles back a selection from his own harem. In the story Dick won this dazzling reward. And the story of the old British tramp whose skipper thought to win a gold watch and chain for being the first to take his ship up the new canal at Galveston, Texas, but was instead put in clink for entering that brand new thoroughfare without a pilot. And how, when burning off paint in Rangoon, Dick inadvertently turned the blow-lamp on the Old Man's behind. And how he fought and laid out five giant negroes in Sourabaya, and much in the same manner which never failed to draw laughter from the most silent and depressed of his audience.

But at ten minutes to eight the scientists reluctantly drag themselves away from this entrancing recital. It is my turn to-night to work the water-sampling instruments from the big davit on the foc'sle head. It would be. There is an angry sea running in the vast blank darkness outside our little world and tongues of spray leap over the weather rail. Water swishes creaming backwards and forwards upon the fore-deck for it is blowing what the Old Man calls a "stinker" from the south-west. He has an apparently unerring eye for "stinkers" and can foretell the onslaught of one two days ahead. With the air of Augurs examining the fateful

entrails he consults a little aneroid barometer that hangs in the wardroom above the sideboard.

On the lower deck amidships there is an oblique steel bulkhead built to protect the galley and stokehold doors and prevent "stinkers" from washing the cook overboard. It has a heavy storm door which is clamped tight in rough weather so as to enclose the galley and stokehold doors in a little triangular space shut off from the elements. This is a place of suffocating heat or grateful warmth according to the latitude since fumes from the galley and the stokehold meet and mingle here and there is no draught to blow them away. A kind of larder has been built here by Chips the carpenter where half-dissected carcasses of meat hang on hooks, though one would hardly think it was the best place to keep them, swaying rhythmically together with the remains of eviscerated fish. Cabbages, beet-roots and onions lie around here too, contributing to the general effect their quota of rotten stench. In the morning the cooks sit in this odorous fug-hole on upturned buckets peeling potatoes into other buckets between their legs. They sing and curse alternately as the rolling of the ship sends their buckets sliding about the deck. Ship's cooks have two peculiarities -a most extraordinary flow of language and an endless capacity for song. They share both of these with firemen. In all weathers at sea there came from this triangular space near the galley a continuous refrain in a curious nasal intonation, also effected only by ship's cooks and firemen. They wondered how long Charmaine would keep them waiting. They promised nasally to see yew again when the Spring broke threw again. They sang endlessly of their heart's delight, their only love. And they interrupted their melodies with bursts of high, cackling, almost maniac laughter. They were persistently, unconquerably cheerful. When the Discovery rolled, as she did always and occasionally so as to throw one out of one's bunk, the galley became a crashing pandemonium of pots and pans. A foot of dirty

water swished backwards and forwards across the galley deck. Before the erection of these protective bulkheads outside the galley door the cook was more than once compelled to climb into the service lift that communicated with the pantry on the deck above in order not to be washed out of the galley by seas breaking into it. Nevertheless, in all weathers, the high maniac laughter of the cooks and their twanging nasal song never ceased. On many a grey morning, with sullen seas toppling and crashing outside, they would grin through the galley door and say, "Great life, sir, this—if yer don't weaken!" And with some suitable reply I would earn another high cackle of undefeated laughter. At midday and at five in the afternoon the little space outside the galley door becomes a kind of focus of the ship's life for the focs'le and the firemen's "peggies" are fetching dinner or tea from the galley and carrying it forward. The air rings with the blasphemies of the Chief Cook and of the "peggies" giving lip. But at eight o'clock in the evening, when the cooks are cleaning out their galley after the day's work and the firemen are changing watches, this little, smelly triangle outside the galley door is a cheery place. It exudes a friendliness which results, no doubt, from the fact that the cooks have finished their day's work. Firemen stand around the galley door exchanging back-chat.

When I come up on deck in my sea-boots, which are so heavy that I feel able to crush all obstruction under foot like a juggernaut, I have to pass through this cheerful rendezvous to reach the workshop where the water-sampling instruments are kept. I must carry these up to the focs'le head and arrange them on a rack ready for attachment to the wire which will carry them into the depths. I join in passing in the firemen's back-chat. The joke of the moment is that one of them lost his trousers in a shanty in Cape Town so that I know my cue well enough. I say, "Got your trousers now, I see," a ponderous and horribly schoolmasterly piece of jocularity which, for some obscure reason,

provokes a cataract of laughter. But the laughter is, I know, more a tribute to my participation in the leg-pulling than to my dazzling wit. But alas! firemen are not what they were. The gor-blimey fireman of the coal-burning days must, I think, be a diminishing species and, in these degenerate times, when ships burn oil, the fireman is rapidly becoming a perfect gentleman, which is a pity. One of them spends hours in the laboratory making charming watercolour sketches of animals captured in the nets, as an alternative to equally charming ones of Argosies in full sail against flaming sunsets and Olde Englysshe Innes with lights in the windows. Yet all was not quite lost in 1932, since one of them, a gaunt creature who was seldom known to speak, finding an altercation with the cook becoming beyond his powers of argument, upheld tradition and "drew him off a Burton." In other words, he knocked him out for the count. And another was to be heard during the night watches chanting in sepulchral tones down below in the stokehold, "John Smith's dead. I know 'e is. I see'd 'im buried, six feet down I see'd 'im. 'E's dead alright-old John Smith." And two others on festive occasions, dressed invariably as brides simpering from out of improvised veils. sang a song that made one feel that firemen, as yet, are not after all in much danger.

When I appear among them in my red fisherman's cap and my sea-boots the firemen's conversation ceases for a moment, whether the subject be the lost trousers or the demise of Mr. Smith. They grin and say, "Another station, sir? It's a good night for it."

"Is it hell!" I reply.

A "station" is any series of scientific observations whatsoever to which a serial number representing the date, the time and position is assigned. But to everybody in the ship except the scientists it means wallowing stationary in the tempestuous darkness for four or five hours nightly while miles of steel wire go rattling out into the depths with water-



sampling instruments or with conical silk nets attached to them, and subsequently come rattling in again.

I open the storm door and the "stinker" comes whistling into the galley meeting place. The firemen dive below into the stokehold and the little party round the galley door melts away. I remove the water-sampling instruments-waterbottles as they are called—two at a time from their rack in the workshop and, with difficulty for they are heavy, stagger for'ard with them through the darkness, along the forward well deck and up the companion ladder to the focs'le head. A life-line has been strung along the well deck and, as the ship rolls, I have to stop and cling to it for a second in order not to be thrown against the port rail. The instruments I carry are fitted with deep-sea thermometers which cost six pounds apiece. It would be a pity to break them. On the fosc'le head I seem to be flying through the darkness with a swooping motion as though borne on the back of some gigantic bird. The bridge and upper-works tower blackly above me. They pursue me, rolling from side to side. A wide skirt of foam breaks away from the ship's side with every roll and on an upper deck the four wardroom windows glow with a comfortable light. Eight bells rings clear above the rush of foam and the ship, heeling over to port, comes up into the wind. The engine telegraph rings "Stop" and the outward surge of the bowwave diminishes. The leading hand comes up the companion ladder. He wears windproof trousers, leather jacket and a woollen sweater of a particularly virulent green. There is a growth of reddish beard on his chin, for we are some weeks out from port. He says, "Good evening, sir. Fear no more the heat o' the sun, nor the furious winter's rages. Shakespeare, that is." But I know he is going to say that before the words are out of his mouth for it is that kind of evening.

CHAPTER XII

SCIENTIFIC

Every "station," or series of scientific observations at sea, was conducted in the same way. The ship was brought round with her head in to the wind and continued to steam slowly into the wind at a speed sufficient to keep the wires to which we attached our instruments hanging vertically in the water. It required skill on the part of the Officer of the Watch to keep her thus for if she steamed too fast, or if her head fell away from the wind, the wires trailed away astern and there was a danger that the wires carrying the watersampling instruments would become entangled with those carrying the biological nets, which were being hauled vertically from the after part of the ship at the same time. There was a further danger that the wires carrying the nets would get around the screw. If, however, she steamed ahead too slowly the wires trailed forward and there was again a danger that they would become foul of one another. All these things happened from time to time, providing a change from the monotony of routine and something to talk about next day. However, we never lost our tempers over these mishaps and sometimes, when the scientists and a group of seamen were struggling to unravel a tangled skein of steel wire brought slowly to the surface after some submarine calamity of this sort, there would be heard Dick's gusty laughter from the bridge. Why worry?

During the circum-polar voyage of the Discovery II there were five scientists aboard. Four were biologists and one, Deacon, was the hydrologist. The former were responsible for the biological side of the ship's work and for working the nets, trawls and dredges. The latter carried out the chemical analysis of the sea water. The biologists arranged a series of watches among themselves so that Marr and I

worked together one night while the other two biologists worked together the next. We took turn and turn about with the water-sampling bottles and with the nets. Thus whenever the ship was stopped on "station" the two biologists on duty divided between them the working of the water bottles from the focs'le head or of the biological nets from the after part of the ship. In the former we were assisted by an able seaman—often the ever cheerful leading hand—and in the latter by George Ayres, the netman. These combined with their duties a running commentary which enlivened the monotony of this nightly routine.

The water-sampling instruments, the water bottles, were extremely simple and ingenious and, since they were made of steel, exceedingly unpleasant to handle in cold weather. Each was really a cylinder set within a rectangular frame. A weight sent down the wire after the bottle had been lowered to the depth from which the sample was to be taken, released a catch so that the cylinder turned over and closed in the cold gloom several thousand feet down, sometimes four or five miles down, entrapping about a pint of water. Each cylinder carried two thermometers with constricted threads which recorded the temperature at that depth in the same way as a clinical thermometer.

Nightly at eight we gave our performance on the focs'le head with these capricious playthings. Sometimes they were so cold that they seemed to burn the fingers and raised little blisters. The operation of running out several miles of wire from a drum and of subsequently hauling them in again with the steam donkey engine occupied anything up to three hours so that there was ample time for meditation or conversation according to your mood. I usually chose meditation but frequently my companion on the focs'le head preferred conversation. In spite of a certain one-sidedness in the conversation which inevitably resulted from this difference in our tastes my cheerful companion was never discouraged. For the leading hand, who so often shared this windswept

perch with me, was a special friend of mine. He had a pleasant, honest and humorous face which, as the days at sea grew into weeks, disappeared gradually into the undergrowth of a sandy beard. He had been with the ship since she was builtin 1929 and we discovered that we had common ground quite early in the days of the Expedition because I admitted inadvertently that I had once spent three weeks at Lee-on-Solent while he lived at Gosport. Had I travelled on the Lee-on-Solent Railway? Did I know they had a new pier now? The town of Lee-on-Solent is responsible for the memories I cherish of many heartening exchanges while the wind smacked round us and driving snow hissed into our eves and trickled icily down our necks. Our conversation roamed over the whole field of the arts and sciences while our miles of steel wire ran off the drum into the dark depths below, but returned ever and anon to the quality of the food served in the fos'cle mess and the probable date of our next arrival in port. I became richer on these boisterous evenings by generous slices of information gleaned from a wide and strangely assorted reading. This curiously earnest young man read avidly. Through the door in the cabinflat bulkhead, which communicated with the focs'le, I often glimpsed him, when on my way to the bathroom, reading calmly amid the screech of a gramophone grinding out stale jazz, the guffaws of a group playing cards and the general babel of those cramped and narrow quarters. Everything he read he kept, like Sarah, in his heart to disgorge into my frequently indifferent ear upon the focs'le head. The weather apparently made no difference at all to his cheerfulness but it did to mine, so that conversation became a monologue on cold and dirty nights and my answers became a little short. On these nights he would say "Fear no more the heat o' the sun, nor the furious winter's rages. Shakespeare. Nothing like education," or, in a lower latitude, with an indigo calm around us and a ghostly albatross glimmering aloft in the twilight, "What I want to know is, why we

can't always work in these latitudes. That's what I want to know." And on all nights he consoled himself with the reflection that "anyhow someone else is spending half a dollar taking my girl to the pictures. That's something."

Meanwhile Deacon, the hydrologist, was busy on the fore deck below us with a slightly different type of watersampling instrument used only for obtaining samples from the upper layers above 300 feet. As he worked he kept a somewhat suspicious eye upon the focs'le head for, with my informative companion beside me, my mind sometimes wandered and, in the midst of receiving some particularly interesting piece of information lately culled by him from an old magazine, I would be brought suddenly to earth by a shout from Deacon below. "Hold on! You've fouled me!" This meant that my wire had become entangled with his, having, through my inattention, trailed too far aft. should have shouted up to the bridge at the first inclination of my wire from the vertical but, being too engrossed with the expectation of life among pearl divers or with the manners and customs of Tibetan Lamas, I had allowed the matter to escape me. Sometimes this meant repeating the water-sampling hauls from the beginning, another two or three hours' work. But nobody seemed to mind.

The leading hand was in the starboard watch. When the port watch was on duty my companion on the focs'le head preferred, like me, meditation to conversation, so that although our association contributed but little to my education, nevertheless science benefited from it.

While we were busy on the focs'le head with our instruments, our miles of drawn steel wire and our conversation, Marr was working the nets from the after part of the ship. The donkey-engine and the drum and the large davit which led the after wire into the water were under cover on the port side near the main winch housing so that I confess, with a blush, that I preferred the evenings when it was Marr's turn to occupy the forefront position on the focs'le head and

mine to work the nets beneath the comfortable shelter of the boat deck. I could retreat thence when I felt so disposed into the small rough laboratory off the port alleyway. I think Marr preferred these evenings too.

The nets we used were designed to catch the minute floating plant and animal life which peoples the ocean in uncountable millions in the summer-time. They were exceedingly simple in arrangement, like the water-sampling bottles, for each was essentially a conical bag of silk or canvas with its wide mouth stiffened by a metal ring. At the narrow end of the cone was a small zinc or copper bucket, which could be unscrewed or unclamped and into which the tiny creatures were collected as the net was hauled slowly upwards to the surface. The nets could be closed at any depth by sliding down the wire a small weight, which released a catch so that the metal ring carrying the mouth of the net fell away from its attachment to the wire, leaving the net held by a rope sling about its middle. We hauled silk nets vertically through the water while the ship was stationary or, while she moved slowly ahead, we towed larger and coarser nets of canvas over the stern. These too we could close at any depth we wished. This was where Jack Cook, the winchman, came in. The nets were towed on the stout trawling warp of tapered steel that ran from the main winch over the poop and out into the water through rollers in the stern rail. And the main winch in its housing on the after deck with its five miles of tapered steel wire came under the loving care of Jack Cook, "Old Cookie," the oldest man in the ship. So did the three smooth running donkey engines we used for hauling up our vertical nets and water-sampling instruments. He bestowed a personality upon them all, especially the big trawling winch, referring to each one as "she" as though he were the guardian of a bevy of capricious and highly-strung females. He hovered around them with oil can, grease gun and cotton waste and if one of them went wrong would explain in his Tyneside accent (he was a

"Geordie") exactly why it was not really the engine at all but, by inference, the man behind it, usually meaning me. He operated the big winch himself when we used it for towing nets, which we did daily, or for trawling, and when that went wrong he let it be understood, with indignation, that it was in this case neither the fault of the winch nor of the man behind it but of God who made things so difficult so often. Once, when we were loading stores in Melbourne, I was daring enough, since "Old Cookie" was busy elsewhere, to operate the main winch myself. After that, strangely enough, all manner of things very nearly went wrong with it for days. It would have been a bad look out for that clanking monster that he loved so much had all these things not been discovered by Jack Cook in the nick of time. Entrenched behind his ponderously revolving and clanking drum he judged its movements with extraordinary accuracy. Whereas I and others could only induce it to make violent and startling movements, with resentful clankings and hissings, in answer to diffident movements of the throttle valve, old Jack Cook could make it yield fractions of an inch, or could make it march with steady willing tread bringing the nets in beautifully on time, or could stop it instantly at a shout from George Ayres on the poop. For this also was where George Ayres came in for he handled the nets.

George Ayres was a sailing ship sailor of the old school. He had been with Mawson in the old Discovery in the British Australian New Zealand Antarctic Expedition and he had the Antarctic medal. Further, he came from east of Aldgate Pump, a sailor from London where many fine sailors come from. He was a huge man with sandy hair, little china-blue eyes and a smile of rare good humour which enlivened his whole countenance. His face, like all the best faces, was good to look at without being good-looking. His manners in all society were always unconsciously perfect and when being addressed by gracious Governors-General in dominion ports his manner was precisely the same as when being

addressed by me. He was the netman on board the Discovery II. Into the care of his enormous hands were given all the nets we used for our work from those of the very finest silk, for collecting the floating plant life of the sea—the basis of all marine life, and those of coarser silk for collecting floating animal life, to those of canvas for catching larger animals and young fish. With these same great hands he performed marvels of stitchery which any housewife might envy. With trawl twine and sail twine he wrought intricate miracles of splicing and bending in a small room aft on the starboard side. This room was a bo'sun's paradise. Here were stacked in enchanting, almost feminine neatness the circular frames of all sizes to which the conical nets were attached, bales of silk of varying finenesses, balls of twine of different grades, zinc buckets for the catching ends of the nets, sail needles, leather palms, marline-spikes, bolts of canvas and a canary in a cage, uttering thin cheeping noises from time to time. And here, too, was George Ayres' tin of tobacco, the cigarette papers that he rolled with his thumbs and the battered old hat that he wore. The place had that rough sailor's smell of Stockholm tar and twine.

Our relationship to this fine sailor was remarkable. He was under the immediate supervision of my colleague Marr, who, having been more or less continuously at sea, either in Antarctic or Arctic waters, since he went south with Shackleton in the "Quest" Expedition at the age of eighteen, knew all that there is to know about trawls and nets and was almost as much of a sailor as Ayres himself. So that the two worked together in a kind of genial partnership. Marr advised rather than ordered and Ayres co-operated as much as did his bidding. But I am no sailor and it looks as though I never shall be. I have not the salt in my blood perhaps, and I lack altogether the patience, resourcefulness and cheerful fatalism of the sailor. The sea has not claimed me for its own and I am not lost on shore as sailors are but rather inclined to be lost aboard ship. Yet, by a paradox, I was

frequently placed in a position of overseer to Ayres, for during work at sea the zoologist on duty was in charge of all that concerned the working of the nets. In this position I always felt morally subordinate to Ayres and if anything went wrong with the working of the nets, as sometimes happened, it was Ayres and not I who decided what to do, and who did it. This reversal of our positions was accepted by both of us with good humour and good grace. Never once did I feel a loss of position or dignity on account of it and somehow always, by means of some special gift, Ayres managed to make me feel that it was really I who was the man on the spot, the man who knew. And for that reason, if for no other, my heart warms towards him.

This science business was a constant source of slightly mystified amusement to Ayres, as it was to all the men. He would peer at the catch in its zinc bucket after the net had been lifted, cold and dripping, over the rail of the poop. "What's the good of catching all them wogs, sir?" and an immense smile spread from ear to ear while a hundred creases ran outwards from his little china-blue eyes.

In his little room off the starboard alleyway Ayres stitched and repaired our nets with swift accurate movement of his big hands. He spliced the wire bridles on to them, laying the strands neatly together between his fingers, humming under his breath. And nightly, bound, stitched and spliced, he shot them over the poop rail into the water under the glare of two huge flood-lamps that blazed down upon the deck from the after samson post.

There is an art in shooting nets. You hold the apical end of the conical silk or canvas bag with its zinc bucket as far out across the stern of the ship as you can. The men pass the open end, the metal ring with its attachment to the trawling wire, out over the poop rail. As the wire passes out carrying the net and its attachment downwards into the water you still hold the bucket end. As the stern rises and falls with the pitching of the ship the dark water below comes

up towards you and falls away again. Sometimes it thumps against the counter with a thud and a great arc of foam breaks away from the ship's stern. Sometimes the water rushes through the hawse-holes and swishes over the poop deck around your feet. Sometimes you get wet and the men laugh. Presently the ring of the net, passing downwards, enters the water. Then, as the sea comes up again, you throw your end of the net away as far as you can clear of the wire and watch it carried down bubbling into the dark water. And the men say "Lovely she goes!" That is if you have shot it properly. If you have not the net winds itself round the wire. This may happen if wind or sea take charge because you have let go too soon. Then they say "Ah, the silly bitch!" and shout to Jack Cook to heave in again, which he does with oaths. You hear his angry voice from the winch house, "What the 'ell are ye playin' at?" as he puts his clanking monster in reverse. And afterwards Jack Cook will tell you how difficult it is when people (meaning you) won't make up their minds but keep on mucking about.

And here, also, James Marr came in, and I too, for we had to see to it that the wire entered the water at the correct angle-about forty-five degrees. Near the main winch, so that Jack Cook could see it, was a revolution counter with a dial. It indicated the amount of wire paid out from the drum of his winch. If the wire were entering the water steadily at an angle of forty-five degrees we knew that a net on the end of the wire would reach a depth equal to about half the amount of wire paid out by Jack Cook from his winch. If the wire passed too steeply into the water the nets sank too low, or if it passed out at too flat an angle they did not go deep enough. While the wire passed outwards over the rollers in the stern rail, carrying the nets downwards into the glimmering darkness, or as it came slowly in again to the creaking of the great winch drum, Marr and I stood on the poop and watched it. At night we stood under the



Photo : Alfred Saunders F.R.P.S.

glare of the flood-lights on the after samson post. They threw a warm light on the semicircle of poop deck and upon the darkly gleaming water below. Marr stood thus watching the slow passage of the wire with faithful and intense concentration in all weathers. Sometimes blinding snow whirled aslant into the circle of light and rushed on into the outer darkness. Or cascades of foam streamed over the poop rail and broke about his feet. Sometimes the ship pitched so much that a life-line had to be rigged for us to cling to. James Marr stood watching the wire with faithful vigilance and let the weather rage around and upon him. On the port side of the ship, near the winch housing, was a small laboratory used only for rough work, for sorting and bottling the catches when the nets came in. When I had to watch the wire I stood in the grateful shelter of this little room and now and again, often with unsteady gait, made my way aft up the poop steps, clinging to life-line and rigging, to take my necessary glances at the slowly moving wire. this laboratory there was a speaking tube through which we could, with some difficulty, communicate with the bridge. If the angle of the wire as it entered the water were too steep we had to ask the Officer of the Watch, by means of this speaking tube, to increase the speed of the ship a little. it was not steep enough we had to ask him to slow her down. But this speaking tube called for a special technique which could only be acquired after long practice. You blew down it first so that the whistle plugged into the other end gave a squeak and summoned an ear to the trumpet-shaped opening in the wheel house. However, if you blew down the tube in the normal way the whistle at the other end remained mute. The correct method was to collect a lungful of air and expel it with explosive violence into the tube. What happened to this explosion on its way up the tube I cannot imagine for it always seemed to become dissipated and your best efforts only succeeded in producing a thin squeak in the wheel house. And when finally your squeak was answered and you asked in ringing tones for another five revolutions per minute of the engines more or less other noises mingled with your voice, the beat of hammers, the moan of pumps, the throb of machinery or the gurgle of water, which masked and contorted the King's English. At first, therefore, only the most simple and terse communications could be made through the tube but in time, as one's technique improved, one could indulge in mild repartee or make simple requests. You could ask, for instance, that a cup of tea, pitch-like and oversweetened and luke warm, should be sent down to you, to be handed to you with a disarming smile and a very dirty thumb nail above the edge of the cup.

When the nets came in we lifted them, dripping and often icy cold, over the poop rail. The buckets which contained the catch were unfastened and carried with aching fingers into the rough laboratory. Here we strained off the water from them with silk and bottled the tiny creatures the nets had caught in screw-topped jars of formalin. The seamen came into the rough laboratory and watched this performance. It was the same performance every time and every time it called forth much the same remarks to which we found much the same answers.

- "Good catch, sir?"
- " Not bad."
- "Anything special?"
- "No, nothing very special."

We always answered in the same way. Anything in the way of an explanation of the tiny phosphorescent creatures in the zinc bucket produced, we learnt, a certain ill-defined embarrassment. They seemed to become immediately conscious of being out of their depth and, like one learning to swim who suddenly realizes that the supporting hand is no longer there, they looked helpless as though about to drown. They put on expressions appropriate to a lecture on some abstruse and incomprehensible subject like relativity or surrealism. So that, to save our faces and theirs, we often

deliberately adopted an attitude of levity towards our own subject, making light of science, realizing that their questions indicated friendliness rather than a desire to learn the secrets of the deep.

"Baby" Prinsloo, however, was interested in science. He was six foot eight inches tall and he walked with a perpetual stoop from working in the gold mines of Kalgoorlie. Australia had not been kind to him and he signed on in Fremantle in order that he might eventually get back to his home in the Transvaal where he had an old mother who, as old mothers often do at a distance of several thousand miles, exuded mother love for her seven-foot blond son. When I was busy in the rough laboratory "Baby" Prinsloo would often come in, stooping to avoid hitting his head in the doorway, and peer down at me with his brows knit in a puzzled frown. And at last, picking up one of the small labelled screw-topped jars, he held it up to the light. Small specks and seed-like transparencies were jerking their last within it. "It seems," he said slowly, with an air of sad bewilderment, "as though the sea were all kind of germy down there." "You're right, Lofty," I said. "It does. It is."

CHAPTER XIII

OCEANIC

THE germiness of the ocean is perhaps one of its least obvious features. The imagination peoples the deep with strange fishes and unheard-of monsters but it was only when we trawled or dredged in shallow water near the coasts, or when we towed very large nets, which was seldom, that we caught creatures whose beauty drew exclamations of surprise and brought cooks and stewards and firemen running aft with ladles and oil cans in their hands to see what the scientists could do. Usually we sadly disappointed the admiring crowds which, for the first few days of a new cruise, collected on the poop to watch the nets come in. For we caught what looked to the uninitiated like jars full of small seeds. uniformly dull and uninteresting did these appear that our audience soon melted away and long before we reached Antarctic waters we brought the nets in unattended by any whose presence on the poop was not their duty. Yet the vast spaces of the ocean, hundreds of miles from any land, teem with multitudinous tiny life which drifts hither and thither at the mercy of the currents—a life as rich and abundant as anywhere on land.

Our finest nets were made of balloon silk. They brought up only green slime from the deep. This green slime, the basis of all life in the sea, is the pasture upon which the myriad floating population feeds. It consists of countless millions of little green cells within skeletons of glass, often fashioned in patterns of bizarre and fantastic beauty. Like the grass of English fields this ocean plant life lives by sunlight—even the pale Antarctic sunlight—which it entraps by means of a green substance identical with that in the leaves of trees and flowers. For this is the grass of the sea and our

own North Sea and English Channel owe to it their own peculiar, and often too familiar, green. And like trees and flowers it multiplies and grows exceedingly in the spring and early summer so that even our coarse nets were often choked with a thick green mass like porridge with which we could fill several enamel basins. But in the winter, like all plants, the slime dies away and the glass skeletons rain down upon the sea floor so that the Southern Ocean around the Antarctic Continent has a bottom of soft ooze made up of their accumulation throughout millions of years. Upon these ocean meadow-lands lives the swarming, teeming, but minute animal life which we caught in our coarser nets. ocean "germiness," the tiny phosphorescent shrimps, the arrow worms, the transparent jellies, the drifting, darting, swarming, pulsating things that live and reproduce and die away in the formless darkness of the sea, feed upon this green slime and upon each other. They, too, spawn into myriad life in the summer and die away in the winter, and in the ocean wastes life is just as much a struggle to the death as it is in the Amazon jungle and each tiny creature is as dependent upon its fellow as the jungle beasts upon their prey.

Along the ice edge our nets, before we put them in the water, were often frozen stiff as boards and had to be thawed by soaking them foot by foot in basins of hot water. The blocks over which ran the wires carrying the vertical nets and the water bottles became jammed with ice and we held up to them torches made of cotton waste dipped in paraffin. Steel instruments and dripping wet canvas nets were an agony to fingers which became paralysed and numb. When the fingers are helpless with cold the mind becomes It is difficult to be interested in biology or in helpless too. anything but the urgent necessity of getting life back into the fingers. When the blood returns it is exquisite but satisfying torture. The imperviousness of James Marr and Ayres, and indeed of the men generally, to this mentally and physically crippling form of discomfort was a source of continual astonishment to me. They would continue with, apparently, perfect equanimity to handle wet canvas and metal in a wind that seemed like a razor edge, blowing straight off the ice. A slight slowing down of their work, perhaps, and a strengthening of language were the only signs that they felt the same strain on the patience, the ebbing of resource due to paralysed mind and hands, that I was feeling. They would blow on their fingers (no remedy at all) and beat them against their bodies, say "Brass-monkeyish, ain't it?" laugh and continue with hands blue to the wrists. I did my best to imitate this granite-like unconcern and often kept a tight hold on a deteriorating temper because I thought that if others could I could. I found that this did not always follow by any means, but one has a sort of priggish conceit about these things. Let me leave in your mind a picture of the occasion when we dredged in shallow water in the Ross Sea in seventy-eight degrees south. It was blowing a wind off the Antarctic Continent that seemed to cut the skin like a razor. The dredge, a conical canvas bag attached to a stout iron frame which was dragged along the sea floor, came up full of yellowish mud. This was emptied out in a heap on the poop deck. We had to look through it in search of rock specimens, preserve samples of it in jars of alcohol, and wash some of it in sieves. The yellow heap of sticky clay was so cold that one immersion of the hands in it paralysed them completely up to the wrists. We went over every inch of this freezing pile of slime, plunging our hands in it over and over again up to the wrists, squeezing the oozey clay between our fingers. We did it with tears. Fire-walking could scarcely be a more painful ordeal. The razor-like wind took the skirts of our coats and blew them about our shoulders. Snow hissed and congealed around us while the men stood impatiently around, beating their hands against their bodies, waiting to wash the silly mess into the scuppers.

"Get stuff like this out of the Thames any day!" they said.

Finally picture me using, surreptitiously, a long enamel spoon.

Yet, disillusioning though the admission may be, extremes of temperature are rare at sea for the great mass of the ocean, far from land, does not either take up or yield heat with ease. On that well remembered occasion, when we dredged in the Ross Sea, the thermometer stood at four degrees Fahrenheit —that is twenty-eight degrees below freezing point. I do not remember that the temperature was ever lower than that even in the depth of winter and usually, along the packice edge, it was between eight degrees and sixteen degrees Fahrenheit. I have frequently suffered a diminution of prestige through this damaging admission, especially with people who recall temperatures of sixty and seventy degrees below freezing point in Canada, in Switzerland, in Russia or in the Himalayas. Or indeed anywhere except in a small ship upon a wintry polar sea. "Why!" they cry in disgust, "Twenty-eight degrees below freezing point is quite common in England in the winter!" This is quite true, but in Canada, Switzerland, Russia or in the Himalayas steel and canvas, wet and caked with ice, are probably just as unpleasant to handle as they are in the Antarctic pack-ice. But in Switzerland the sun often shines so strongly that you may ski in a bathing suit though the temperature may be forty degrees below zero. On the Antarctic Continent, if the air is still, though the temperature may be fifty degrees below freezing, exploring parties can frequently pull sledges in shirt-sleeves during the summer-a fact which makes bad copy and seldom appears in the descriptions of polar expeditions. But at sea there is nearly always a wind, often a gale, blowing. Frequently there is no sun but a heavy grey pall of cloud and often snow so that temperatures only a degree or so below zero were sometimes harder to endure than much greater cold when the sun shone. Nevertheless it is vanity to explain all this and I find that the mention of the cold clamminess of dripping nets, the blistering steel of instruments handled in an icy wind, the inches of ice caked on ropes, rails and stanchions never restores to me the caste I lose when I admit, somewhat grudgingly now, that we did not meet with temperatures lower than twenty-eight degrees below freezing.

It was, as a rule, at the edge of the pack-ice that we saw in the summer time reddish-brown patches chasing each other through the water like cloud-shadows upon fields. put our nets over the side when these shadows were around the ship they would come up filled with hundreds upon hundreds of small transparent red shrimps. For these were swarms of "krill"—the food of whales, the food too of the millions of penguins and sea birds which cover the shores and cliff-faces of Antarctica. To us these swarming reddish, delicate shrimps were of particular significance since an understanding of their difficult life history was the key to the knowledge which we sought of the movements of the great whales themselves. They were the ultimate reason why I and fifty others spent our lives plunging, wallowing and blaspheming round the Southern Ocean in high summer and in the depth of winter. The "krill" is a creature of delicate and feathery beauty, reddish-brown and glassily transparent. It swims with that curiously intent purposefulness peculiar to shrimps, all its feelers alert for a touch, tremulously sensitive, its protruding black eyes set forward like lamps. moves forward slowly, deliberately, with its feathery limbs working in rhythm and, at a touch of its feelers, shoots backwards with stupefying rapidity to begin its cautious forward progress once again. In the winter, when we made our unsung voyage around the Antarctic Continent, the "krill" was young along the edges of the ice, almost thread-like creatures which only a trained eye could pick out from among the other minute entities brought up by the silk nets. But in the summer-time we found them growing larger and larger until at about mid-summer they were perhaps two inches long, with feathery legs and two black knobs for eyes.



Photo: Alfred Saunders, F.R.P.S.

It was then that we often saw them swarming like shifting clouds in the water and, having caught them in our nets, placed them in glass jars and poured formalin on them while the men, crowding round us in the rough laboratory, laughed to see them jerk spasmodically and sink down, growing slowly opaque. It was then that the great whales, diving and snorting through the drifting shoals along the edges of the pack-ice, opened their cavernous mouths and engulfed them in thousands. Closing their mouths they pressed the water out between the whalebone plates with their balloon-like tongues and swept back the entangled "krill" into their gullets. It was then that the lemmers on the "plan" slit open the bulging stomachs and let the half digested "krill" come pouring out like corn. And it was then that "Baby" Prinsloo came to the utterly bewildering conclusion that it seemed as though the sea were "all kind of germy down there."

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It is ten minutes to eight bells-midnight. The glare of the flood-lights on the samson post lights up a semicircle of poop deck and a dark glimmering arc of water below. The dark glimmer rises and falls rhythmically as the stern pitches up and down. The last net of coarse canvas is lifted dripping over the poop rail. It is icy cold. The men hold the lower half of the net while I wash it down with water from a leather bucket. They unclamp the zinc container from the end of the net and I carry it gingerly, with numbed fingers, down the poop steps and along the after deck to the rough laboratory. In it is the precious catch. If I spill it, it may mean another hour's work. Jack Cook is putting up the canvas covers on the winch house, making his charge snug for the night. From the poop George Ayres with a voice of brass shouts to the bridge, "All clear aft, sir!" The floodlamps are extinguished and their light dies out, plunging the poop again in a cold and windy darkness. The engine telegraph rings and we are off again plunging, rolling, wallowing round the Southern Ocean.

In the rough laboratory I strain the water from the zinc container through silk, empty the tiny creatures into a screw-topped glass jar and pour formalin over them. The men are going for ard in their duffel coats, fur caps and seaboots and some of them, in passing, come into the rough laboratory to watch me. They stand rubbing their chilled fingers and joking about the weather.

- "Heaven help the sailors on a night like this!" says one.
- "Good catch, sir?"
- "Not bad."
- "Anything good?"
- "No, nothing special."
- "Well-good-night, sir."
- "Good-night."

Suddenly I seem to be alone in a ship rocking upon the midnight ocean. The sea-booted footsteps die away for'ard and there is no longer any sound of life but only the swish of foam, the moan of wind in the rigging, the whine of pumps and the continual clink and rattle of things as the ship rolls. The galley door is shut and the storm doors in the bulkhead amidships have been clamped to again. In the triangular space outside the galley the half dissected carcasses of meat and eviscerated fish swing to and fro. A few onions roll about the deck. The firemen are changing watches and grin when they see me.

[&]quot;Finished, sir? Good-night."

[&]quot;Yes. Another 'station' nearer home. Good-night."

CHAPTER XIV

IMPERIAL

AROUND the city of Williamstown, Victoria, there lingers still a faint flavour of the past. Something of the sea and of ships still clings to the broad tree-lined avenues and to the one-storied houses with their coloured verandahs. Through brown foliage at the end of each of these dusty boulevards there shines a glimpse of blue water crowned by the square outlines of Melbourne, that youthful city. Life pulses there as through a heart but Williamstown lies dreaming of the days of sail. For once the masts and rigging of tall ships, the wool clippers, fretted the sky above the roofs of the little houses and above the plane trees which drop their leaves wearily in the hot breath blowing from the parched middle of Australia.

The clipper ships have gone. In the bars near the jetty little yellow men from the Japanese cargo ships sit placidly observing the manners and customs of the occident, sipping their occidental beer.

On a hot summer's evening two days before Christmas 1935 the long harbour jetty of Williamstown was thronged with people. They threw streamers and waved handkerchiefs and shouted good wishes. Overhead, silver against blue, a seaplane circled and dipped, droning like a bee in the summer sky. On the roofs of motor vans ciné-men straddled behind their cameras and pressmen ran in and out of the crowd or appealed to the throng to stand out of the way. "Just one moment, please! Just a minute. Thank you!"

To the cheers and shouts of the crowd the Discovery II drew away from the jetty. The coloured streamers lengthened, snapped and fluttered against her sides. "Good-bye! Good luck! Hope you find him. Bring him back safe!"

From the high, black sides of a Japanese cargo ship the little yellow men looked impassively down as though at some unaccustomed, but occidental and so noteworthy, rite. The sun sank behind the oil tanks and ramshackle sheds of that once famous port.

On the after deck of the Discovery II, upon a special platform built on steel girders, sat an aeroplane like a huge insect shorn of its wings, covered with canvas. The after samson post had been removed to make room for it and on the roof of the hospital amidships was another aeroplane, also without wings and canvas-covered. Every available inch of space on the fore and after deck was occupied by drums of extra fuel oil for the ship's engines, with sacks of coal, with crates of aviation spirit. Festoons of meat hung swaying in the rigging. In the alleyways and in the rough laboratory aeroplane wings and tail fins were lashed to the bulkheads. Huge crates containing aeroplane spares were secured to the upper deck. As the ship drew off from the jetty the crowd stood waving and shouting until their voices were a thin little cry upon the evening air.

Three weeks before this we had been stopped on "station" at the edge of the pack-ice in fifty-eight degrees south almost due south of Fremantle. It was snowing heavily but we could see the edge of the ice as a whiteness through the murk. I stood at the donkey engine on the port side near the door of the rough laboratory while Ayres, leaning over the rail, adjusted a silk net for its descent into the water. Deacon came aft and said, "Hold on a minute!" There was a radio telegram in his hand. "We've got to make for Melbourne at once," he said. "Don't tell anyone yet. We're going to look for Ellsworth."

It was two years since I had last sailed in the Discovery II and there had been many changes. The old order had changed, yielding place to new—an inevitable and necessary process to which I have never been able fully to reconcile myself. Like the duck-billed platypus I resent the process

of evolution. Many of the officers I had sailed with previously and knew so well had gone. Dick had gone, taking his gusty laughter with him. At dinner we heard only echoes, at second hand, of the King of Nauru and of what happened one night in Sourabaya. But we had Marr with his zeal and his devotion and Deacon with his triumphantly even temper. But we lived politely now without those frantic rows and quarrels which showed that each of us cared about and was affected by what the other did. Wonderful exhilarating rows followed by beer and handshakes all round. And the luxury of self-confession.

We had left the Cape at the beginning of November intending to make another circum-polar cruise, this time during the southern summer. When the order came to "proceed with the utmost despatch" to Melbourne I, for one, was not displeased. I had done one circum-polar cruise. I knew what it was like.

"It will be summer in Melbourne," we said.

We turned north-eastwards, hoisted a foresail jib and a spanker and, with their somewhat doubtful aid, we left the pack-ice and its hurrying snows behind. In a week the weather was mild and patches of blue showed between the clouds. But we still knew nothing of the reasons for our summons to Melbourne except that it had to do with Lincoln Ellsworth, the American aviator, who, we believed, was to make this summer his third attempt to fly across the Antarctic Continent. One evening I was reading in my cabin, supporting myself against the rolling of the ship. Deacon and Marr came in. "We're to take on two aeroplanes in Melbourne," they said, "and two pilots. We are to take in stores for four months and go down to the Bay of Whales. That's all we know."

"At last," we told each other, "we're going south."

In another week we came alongside the jetty at Williamstown. A few seedy-looking workmen in battered felt hats and black shirts, some boys bathing in the muddy water and

the little yellow men were all who saw us arrive. But a young reporter with a lean face and a clipped moustache came aboard. "We know nothing," we said with truth. "Tell us what it's all about." He was followed by others and before the day was out we found ourselves a vehicle of international goodwill, a gesture of friendship, an example of co-operation among nations. And so on.

Lincoln Ellsworth took off from Dundee Island, a bare desolation of rock and snow at the extreme tip of the peninsula of Graham Land, on November 23rd. He planned to fly tangentially across the unmapped and undiscovered wastes to Byrd's base camp, "Little America," at the southern extremity of the Ross Sea over two thousand miles away on the other side of the Continent. At eight o'clock in the morning he vanished like a great bird into the blue and eight hours later his last radio signal was heard by Sir Hubert Wilkins in Ellsworth's own ship, the Wyatt Earp—"Still clear. No wind." Then silence. That was exactly one month before we sailed heavily laden from Williamstown with the good wishes of Australia ringing in our ears.

When Sir Hubert Wilkins announced that messages from Ellsworth had ceased and that there were fears for his safety Australia remembered Ulm. A year or two ago Ulm, flying from Australia to California, had crashed in the Pacific. The American Pacific fleet turned out, albeit unavailingly, to search for him. Now in the fullness of time an American flier had perhaps crashed in the Antarctic. The Australians are sentimental, loyal, quick to perceive a gesture and to return one. Everyone in Melbourne said, "It's because of Ulm you sec." And it was then that we began to understand the character of the undertaking that lay before us. For beyond the sentimentality with which the newspapers filled their columns we could see there was something else. Something was expected of us. In spite of the fact that we were called the "Good will Ship" and "Australia's Gesture" we found that people quite genuinely meant it when they said to us in clubs, in pubs or in the street, "Good on yer, Discovery! Hope you find him!" And when young men and girls, lean, bronzed, superb, sailed across the harbour in their skiffs to "see the Discovery" and, seeing perhaps only me coming out of a door on the lower deck, shouted "Bring him back safe!" they invested in me, who had nothing to do with anything, the trust, the confidence, of the youth of a young nation. They had caught the sense of the gesture their stripling race was making. But Australia, desiring to make this gesture, pricked into making it by her awakening national consciousness, had no ship with which to make it. And it was because we were known to be cruising within range that we found ourselves thus suddenly endowed with a new imperial significance, the centre of what is commonly known as "enormous public interest."

The interest of the public, however, was by no means a new thing to those of us who, like myself, had made a trip in the ship before. We had been through it all many times already and learnt that fame has its disadvantages and its drawbacks. We had died a hundred deaths from kindness and, in years past, had so often longed for the earth to open and swallow us up. In Melbourne in 1932 the press gratuitiously announced one Saturday that the Discovery II would be open for inspection by the public on the following Sunday. As a result the public took possession of the ship, our home, all day. We ate under the eyes of a delighted audience peering through the wardroom windows. They invaded our cabins and finally drove us off the ship altogether. We lectured endlessly, indefatigably, almost inexorably. In Fremantle I was taken figuratively by the scruff of the neck and made to give an impromptu talk to workmen at a factory during their lunch hour. They were a tough crowd who sat about in singlets munching while they listened. When I ended coyly with, "I think that's all I have to say," a voice at the back shouted "Well, thank God for that!"

And in every port of call we gave doubtless informative and illuminating demonstrations of our work with the scientific apparatus specially rigged for the occasion. I would become conscious that my voice, expounding the same thing for the hundredth time, had reduced itself to a flat and uninspiring monotone. And presently the only reaction it called forth in my listeners was a slightly mystified silence. And then the voice that said, "But tell us what you wear down there." Life and understanding would return to their faces as I showed them my old pilot-cloth trousers with their precarious buttons and my red fisherman's cap. Often our audience on these occasions consisted of hundreds of school children, some of whom scribbled industriously in note-books as we explained. For there would be a homework question. Sinister thought! "Give in your own words an account of your visit to the *Discovery*." "Outline as shortly as possible the principal habits of whales." So those who worried about homework or in whose lives the habits of whales meant anything at all wrote furiously with a kind of desperate urgency to keep up as I droned on. For these we tried to make ourselves as clear as possible with one eye on those who were not worrying about homework and to whom the habits of whales meant nothing. These swarmed into the rigging, rang peals on the engine telegraph or chased each other with shrieks of laughter round the deck, keeping us in a state of dreadful apprehension lest this furious sport should take them into the foc'sle or some other forbidden quarter. these occasions we hung nets and water-sampling bottles from the rigging so that we might demonstrate their working. "And now," said I, ascending into the rigging until the faces of my audience were a cluster of pink upturned discs, "I will show you how a conical net is closed. We attach this little weight to the wire and it slides down-so," and I let the weight run down the wire before their charmed upward-gazing eyes. They were breathless with anticipated delight, radiant with expected pleasure, awaiting a miracle.

But it never came. The net remained obstinately, mockingly open. There was a ripple of laughter. Abashed and blushing the magician climbed down again from his place among the clouds. His magic bubble had been pricked and the virtue was gone out of him. Yet for all that I knew that they would remember, those who worried about homework, the net that failed to close just as to-day I remember little elementary science but the experiments which defiantly refused to come off in front of a ribald audience.

So that all we asked for in Melbourne was a little peace, the blessing of obscurity, but it was denied to us. We made speeches. "... And we hope we shall be successful in this mission of ours. Anyhow I am sure we shall all do our best" (thunderous applause). We spoke over the radio and heard our voices relayed to us from the blattnerphone ribbon
—a humiliating experience. "Awfter this voyage is ovah," said an incredibly Oxford accent which purported to be mine, "we hope to continue our circum-polah cruise round the wahld to South Africah." All day and every day the jetty was thronged with people watching the preparations for our departure. They laid siege to the ship at week-ends and the Chief Officer, with a voice of brass, stormed up and down trying in vain to chase them off. School children came in flocks shepherded with difficulty by their teachers who wished to know if the children might see the ship. Young men and boys stood all day, round-eyed, and ran up to us as we came down the gangway, their eyes alight with eagerness and hope. "Hi, cobber! Could I get a job in that ship? I'd do anything, you know."

But the men took immense pleasure in the limelight. For the benefit of the pressmen when we arrived they disposed themselves tastefully in the rigging and cheered to order, holding out their caps. In the grilling Australian sun they dressed themselves up in sea-boots, fur hats and duffel coats and were snapped in attitudes appropriate to this costume. Next day they bought dozens of copies of the newspapers and read,

under their own blurred photographs, "Sailors in the Discovery II giving three cheers for Australia" or "Men of the Discovery II ready to face the frozen south." For there is always a kind of surprise and delight in seeing oneself in the papers which accounts, no doubt, for the pictures of " Mother of Victim" and "Dead Man's Fiancée" with which the pictorials so frequently regale us. When the day's work was finished and the last drum of oil swung aboard for the day, or the last crate of potatoes or biscuits lowered into the hold, the men leaned over the rail in the evening sun and told tall stories to admiring groups of people, or called over to them the strings of pyjama-clad girls, who, weaving in and out of the crowd all day, had distracted their attention from crates of biscuits and drums of oil throughout a long perspiring afternoon. They came giggling, feigning refusal, egging each other on, and finally stayed, sitting on the edge of the jetty with their pyjama-clad legs dangling until the sun was well down. Often the last sounds I heard from my cabin after I had turned in were high, girls' voices answering, banteringly, the deeper voices of the men.

Workmen were everywhere—the deliberating, debating kind who rub their chins and revolve the matter in their heads before getting down to it. They wore battered felt hats and black shirts. Or the slick kind who work with pomaded hair and a cigarette behind the ear. These said, "Good-oh!" and "Too right you are." They seemed to take a great number of rests while they worked to light the cigarette butts that lived behind their ears, to lean against things and to talk. But the work got done. They pulled out the after samson post with a crane and laid it on a lighter alongside. With acetylene welders, throwing out showers of sparks and making a deafening racket, they spanned the whole of the after deck with steel girders. Marr and I worked for two days, stripped to the waist and sweating, to clear the after hold where scientific stores were kept in order to make room for extra provisions, potatoes, pemmican,

biscuits. This hold occupied almost the entire after part of the ship. It had two decks in the lower of which it was not possible to stand upright. In the upper part were stored nets, metal frames for nets, trawls and boards for trawls and scientific gear generally. Also a disheartening collection of useless and forgotten junk put away long ago "in case it might come in useful." In the lower part of the hold were stowed the boxes lined with felt in which we stored our screw-topped jars of specimens. It was back-breaking work clearing all this. Marr worked like Hercules cleaning out the Augean stables and I kept pace, refusing to admit even to myself that my back felt like breaking and that my blood was pounding like a hammer. But the seaman who worked with us kept pace with humiliating ease. His knotted, tattooed arms made nothing of it. Sometimes we took rests, letting the sweat run down our faces and fall as glittering beads into the dust. We piled everything we brought up to the rude light of day on to a lorry and, when the lorry was full up, drove away standing or sitting on the swaying pile, cheering, through the crowd to a shed where we unloaded and then drove back again for yet another load. There is always surprise and pleasure in unearthing the junk that other people have stowed away thinking it might come in ureful, in rifling old cupboards, in rummaging in old chests, and, I found, in exploring the lost, forgotten corners of a ship's hold. I, who am ruthless in throwing things away and never store up anything thinking it may come in useful, fished up from the depths with whoops of triumph old basins with holes in them, bits of an old wardroom gramophone, old coils of wire rusted through, and an old whisky canteen from which the decanters were missing. It would never grace the wardroom table again. I promised myself an orgy of throwing away such as would satisfy my destructive inward cravings for months. But I was restrained. "You never know," they said. "They may belong to somebody." So I wreaked a merciless vengeance next day among my old clothes and watched many good and faithful servants sink from sight in the yellow waters of Williamstown harbour.

On the fore deck the men were swinging aboard hundreds of drums of fuel oil with a derrick. This was extra oil for the engines in case the supply in the bunkers should be insufficient. They stowed them snugly over the whole of the forward well deck and over the lower deck amidships so that the only communication between the foc'sle and the after part of the ship lay below decks through the officers' cabin flat. Seen from above the circular tops of the drums made a close mosaic of white discs. Into the after hold, when Marr and I had cleared it, they swung the crates of potatoes, cases of biscuits and pemmican which had stood piled upon the jetty.

The little Gipsy Moth scout aeroplane was lifted aboard from a lorry and housed amidships on the roof of the hospital amid a drenching downpour which drove away the admiring crowd, except for a devoted few, and soaked the cameramen and the pressmen to the skin. On its high perch amidships it looked a frail thing, our Gipsy Moth, of aluminium and silvered canvas, delicate and leggy with its floats like huge feet, impotent, wingless, its nose covered with canvas, a crippled insect. This fragile airy creature was for short reconnaissance and observation flights but the main search flights, if any, over Antarctica would be made by the big Westland Wapiti bombing machine (an engine of terror and destruction turned to the uses of peace) which arrived majestically under its own power. It flew from its aerodrome six or seven miles away and alighted with astonishing delicacy upon the water like a silver bird. From where it came to rest, a few hundred yards from the ship, Marr and a crew of seamen towed it to the ship with the whaler. hoisted slowly on to its platform with the derrick. cockpit was a man with a round, tanned face. When the machine had been lowered gently, wings outspread, on to its platform and was at rest, the pilot stepped down from the cockpit.



 $Photo = 4ltred\ Suunders, F.R.P.S$

Flight-Lieutenant Eric Douglas of the Royal Australian Air Force, who was to carry out such search flights over the Antarctic Continent as might be necessary, had flown over Antarctica before. He had piloted the plane which Mawson had carried in the Discovery on the British Australian New Zealand Antarctic Expedition of 1929-31, known for short as the "Banzare" Expedition. Inevitably he was known as "Doug." I did my ineffectual best to discourage this but after a few days found the tide of opinion running too strong against me and I drifted with it until Douglas became as much "Doug" to me as to anyone else. Marr was delighted when he heard that it was Douglas who would come with us to the Bay of Whales for they had sailed together in the Discovery. They greeted each other with warmth as follows:

"Hallo, Doug. How goes it?"

"Oh not so bad, Babe. How's things?"

In the Discovery Marr had been called "Babe" from his supposed resemblance to Babe Ruth, the American baseball player. Actually he bore no resemblance whatever to that famous star, but the name had stuck. After this effusive greeting they fell to reminiscences in which I had no part, but later Marr said, "I'm glad Doug's coming. He's a good chap." He was not one for an indecent display of the emotions.

Neither Douglas nor Murdoch, the second pilot ("in case I have to walk back," Douglas said) seemed to feel any particular apprehension on account of what lay before them. They were not in the least concerned with the possibility of having to walk back or the equally considerable possibility of not getting back at all. They were evidently not given to crossing bridges before they got to them. You don't if you are an aviator. The bridges are too many. They sat unconcernedly at meals talking an extraordinary shop jargon which was almost a language of its own. I can remember but little of it now but it seems that you never come down in an aeroplane. You lose altitude. Instead of climbing you

gain it. They talked of the "prop," meaning the propeller, of "jelly," meaning gelignite, and of "durally," meaning duralumin. The last was hardest to bear. During the days at sea they bestowed on their machines all the tenderness and care of a parent. Under the nose of the Moth they built a stove with a chimney leading up to the engine to keep it warm. They paid ceaseless attention to the stowage of the wings and tail fins, packing them with pads of canvas here, supporting them with chocks of wood there, lest they should chafe with the rolling of the ship. So much so that when, by an unfortunate accident, I tore a small hole in the oiled silk of the tail fin of the Wapiti, I did not dare tell Douglas but told instead, with diffidence, one of his subordinates who gazed at the little wound, scratched his chin and was sure he didn't know what Mr. Douglas would say. On the way south they painted their aeroplanes bright yellow to make them more easily visible against snow. They bound sledges with strips of reindeer hide. They made landing skis for their machines with beaten sheet copper over wood. In all these things they displayed an energy and a skill which made the scientists who, on this trip, had nothing to do at all, feel very much out of it. As a sop to my conscience I helped the Doctor pack raisins in small packets of brown paper and stow them in parachute containers. These were to be dropped should the fliers be found stranded and still surviving far from their objective or from a possible landing. When I had done this for a quarter of an hour every day my conscience was appeased. I had contributed at least a quota.

The two airmen brought with them five subordinates who lived aft in the petty officers' mess. One was a sergeant-pilot, one a wireless operator and the other three were mechanics. They were all Australians except the sergeant-pilot. He was an Englishman and came from Putney but his roots were so deep, from long residence, in the Antipodes that Putney, tired of the unequal battle, had retired leaving

Australia triumphant. These five made an astonishing irruption into our compact little world of fifty Englishmen and Scotsmen, for the intangible barriers which Englishmen erect among themselves mean nothing to Australians. Unwittingly (and unashamedly) they crash through them. They live according to another code and will go on beating down those barriers until they fall. Our Aussies were a fine and vital lot—a bombshell in our midst. The petty officers' mess where they lived rang with their uproarious laughter, for they were indefatigably cheerful. At times they must have felt there was little enough to be cheerful about for we had a very rough passage from Melbourne. One of them boasted that the sea held no terrors for him since he had been so often sailing in Port Melbourne, but for three days after we sailed he and his companions were draped over the rail or prostrate on their bunks, laughing all the time and saying they sure felt crook.

Two days before Christmas our Wapiti aeroplane, its wings removed, lay like a gigantic silver grasshopper upon its platform. Its floats lay on either side of its canvascovered nose—a pair of monstrous silver shoes. The Gipsy Moth stood on the hospital amidships, another insect with spidery legs and huge feet, lashed down and made secure against the rolling of the ship. Our decks were stacked with hundreds of drums of fuel oil, cases of petrol and sacks of coal. Hours before we were due to sail an enormous crowd stood waiting patiently upon the jetty. Pressmen and ciné-men ran hither and thither among them. They snapped us from every conceivable angle. The wardroom was filled with friends and relations of the Australians, vociferous or hushed into silence by the strangeness of their surroundings. Two hours late, amid the cheers and shouts of the crowd, we pulled away from the jetty. The sun in glory went down behind the oil tanks. Across the widening space of water they cried, "Good on yer, Discovery! Bring him back safe!"

On the same day, on the other side of the globe, Ellsworth's stout little wooden ship, the Wyatt Earp, with an aeroplane stowed amidships sailed from Magellanes, the world's most southerly city, and, passing out through the tortuous Cockburn Channel, set her nose southwards for Charcot Island.



 $Photo: Alfred Saunders, \ FRPS$

CHAPTER XV

TO THE BARRIER

THE Antarctic Continent is about the size of Australia lies upon the base of the world lifeless, desolate, terrible, ringed by storms—Terra Australis Incognita, a perpetual challenge to the daring and ingenuity of mankind. On each side of it a huge bight has been scooped out as though the fingers that sculptured it out of rock and ice had pinched it almost into a figure of eight. One of these, the Weddell Sea, faces the Atlantic. The other, the Ross Sea, faces the Into both these great embayments in the contour of the Continent there sweeps a westerly current which runs within each in a clockwise direction and, flowing out from each towards the north-east, carries pack-ice and icebergs far out into the open ocean. In the Weddell Sea the long peninsula of Graham Land forms an ice-trap against which the circular current piles up the pack-ice in an interlocked and jumbled heap, but in the Ross Sea there is no such icetrap, for the mountainous coast of Victoria Land does not project far northward upon its western border. Thus there is no pressure-ice in the Ross Sea and the pack-ice that forms there is, for this reason, far less formidable than that in the It moves slowly with the current north-Weddell Sea. eastwards and out as a long stream across the entrance to the bight but south of it there is, throughout most of the summer, a great stretch of open water—an enclosed sea—hemmed in by pack-ice to the north and to the south bounded by the great Ross Barrier. In late summer this enclosing band of pack-ice disappears and the Ross Sea lies open right up to the barrier face.

The great Ross Barrier is a floating shelf of ice, four hundred miles long from one side to the other and, throughout its length about a hundred feet high. It is flat or gently undulating on top and beneath it are over three hundred fathoms of water. There are many such shelves of ice around the Antarctic Continent but the Ross Barrier is the largest yet discovered and the most astounding. To understand how these barriers are formed imagine a house with a sloping roof upon which a winter's snow has accumulated as a thick mantle of compacted ice. As the mass accumulates it will begin to overhang at the eaves and presently, when a certain weight has been attained, a huge slab of it will slide down the roof and fall with a heavy thud upon the flowerbeds below. But now imagine that the house stands up to its eaves in water. Then, as the mass on the roof accumulates, it will float out upon the water to form a shelf still joined to the roof but supported upon the water. And every now and then, when a certain breaking strain has been reached, slabs of it will break free and float away. The gentler the slope of the roof the larger the floating shelf will become and the longer it will be before a breaking strain is reached which will break off a piece of it. The larger, therefore, will be the pieces which will eventually break free. In many places the Antarctic Continent, under its continuous mantle of compacted ice many hundreds of feet thick, slopes gently down to the sea and there, in just this way, the ice cap pushes outwards upon the water to form a barrier. A barrier is thus really a glacier front, for as more and more compacted ice forms inland the barrier creeps gradually outwards on to the sea. Breaking strains continually set free great slabs of it which float away as those immense tabular flat-topped icebergs which drift northwards until they reach warmer water where they begin to melt, change their centre of gravity in the process and, rolling over, assume bizarre and fantastic shapes. outline of a barrier face is on this account never quite the same two years in succession. The Ross Barrier is the largest of all the known barriers. It is four hundred miles long from side to side. Four hundred miles due south from its seaward face it sweeps upwards to the Polar plateau as the great Beardmore and Thorne glaciers, crevassed and sculptured into nightmare shapes and swept by blizzards that howl there through six months of continuous darkness. Scott, Amundsen and Shackleton ascended by this dreadful road towards the pole. As the glaciers move slowly, inexorably downwards so the Ross Barrier moves slowly forwards but the action of wind and sea wears down its outer edge and breaking strains are continually unloosing huge portions of it. These float away into the Ross Sea, castles of ice a hundred and fifty feet high, streaked with shadow and girdled with foam. At the base of the Weddell Sea is a similar though smaller barrier, the Larsen Barrier, with a face about eighty feet high. The slabs of ice that break free from this are often of a size to shock the mind. In the Discovery II we steamed for three days round one which was forty miles long and twelve miles wide, and the old Discovery sheltered from a storm in the lea of one seventy miles in length. These gigantic ice islands, the size of an English county, sheer-sided and flat as a billiard table on top, drift northwards into the South Atlantic and up towards South Georgia where they break up into smaller fragments which, after years of wandering, disappear in the open ocean far to the north or come aground on the slope of some Antarctic island, there to await disintegration and decay.

In at least one place the sheer cliff of ice with which the Ross Barrier fronts the sea descends suddenly to sea-level and forms a huge open bay. Walls of ice bound the bay at the sides but at the back of it the barrier slopes gently down to the water and ships may tie up alongside as at a harbour jetty. The bay was discovered by Captain Scott and named by him the Bay of Whales. Seven miles south of it upon the barrier face Admiral Byrd built the little township of huts, living quarters, workshops and radio sheds which he called "Little America." It stands there still, deserted,

sinking a little every year beneath the winter's thick accumulation of snow and year by year moving a little nearer to the sea as the barrier creeps forward. The huts are buried now and only spidery wireless masts, some poles and the mast of a wind pump with revolving blades mark the scene of this endeavour and matchless organization. This was the goal for which Lincoln Ellsworth was aiming on his two thousand mile flight across the wastes of blinding whiteness. This was the home which, if he reached the end of it, awaited him.

When the Discovery II went south from Melbourne in January the pack-ice, we knew, would not yet have cleared away but would still form a drifting stream of floes some three or four hundred miles wide across the entrance to the Ross Sea. We must pass through this before we could reach the clear water to the south that washed the barrier face. Knowing the frailty of his steel ship the Old Man, who for all that was only twenty-seven, was in doubt. His Scottish caution and memories of the Weddell Sea exactly four years ago recalled to him continually the thin steel of which his ship was built and the huge hold and engine-room spaces which made her fragile as a tin can.

We met the pack-ice on a calm, still evening when the sky and sea were at peace in a harmony of pale colour. On the gentle swell battalions of small irregular lumps of ice rose and fell as the bows of the ship nosed through them. Large stretches of glassy, smooth, open water, unruffled by any breath of wind, threw back the colours of the sunset and we could see, like the imprint of feathers drawn across the water's face, shoals of "krill" dart away and scatter as we advanced. The huge triangular fin of a Killér whale rose up behind us. The Australians, shouting with amazement, ran up to the foc'sle head and leaned over the rail, watching the little lumps of ice brush past the bows.

"So this is it!" exclaimed one, gazing at the white horizon. "Who would have thought I'd ever see this?"

"And yet," said I sententiously, "it's at the door of Australia—only a fortnight's steaming away."

The familiar white world closed round us and the floes. becoming hourly larger, hemmed us in with their low cliffs and made the world a flat white disc around us. As we did four years ago we pushed with poles over the stern rail to guard the screw and it was in so doing that I committed the crime of tearing a hole in the tail of the Wapiti, the huge body of which, filling the poop deck, made the management of our heavy poles a performance requiring skill and delicacy. You needed eyes at the back of your head. The Australians took a hand at this and thought it enormous fun, running from side to side of the poop, round the tail of the Wapiti, shouting. "Go on, yer silly cow!" they shouted as the space of water widened under their poles and the ship's stern swung away. On each side of the poop overhanging wooden platforms had been built on which to assemble the wings of the aeroplane and if you lay flat on your stomach upon these you could see the propeller turning slowly in the blue water or, when it raced, the sudden angry uprush of foam that hid it. Rows of bodies lay prone upon these platforms on either side of the ship, their heads hanging over the edge watching the screw. The platforms bent perilously downwards under their weight. I permitted myself, as an old hand, to make non-committal prophecies about the ice, indicated "water sky," and went about saying this was nothing to the ice we encountered in the Weddell Sea four years ago. In fact the mantle of an old explorer fell upon me. This was no doubt irritating for everybody except me, but all that I said was fairly true for this ice had none of the terrors of that which had so nearly cost us the ship on the other side of the Continent. There was no pressuring. The floes, though enormous—many of them several hundred yards from side to side—were small in comparison with those in the Weddell Sea and the glutinous ice we had met there was, thank Heaven, absent. And frequently there were

open leads of considerable size. But for those who were new to it, doubtless, it was alarming to see how apparently beset we were, hemmed in by interlocked slabs of ice the size, as Scott described them in this very place, of football fields. One of the seamen said, "Do you think we shall get out of this, sir?" To which I replied with an assurance I should not have possessed four years ago, "Of course we shall."

By the end of the fourth day of slow progress through the field of floes we had come over three hundred miles through the pack-ice and still the endless whiteness stretched around us unbroken to the horizon. From the bridge the Old Man and the Chief Officer looked upon the familiar featureless world with eyes heavy from the lack of sleep. They had been on the bridge continuously, watch and watch, from the evening when we had entered the ice four days ago. They must decide now whether it would be better to push on or turn back. If there were open water to the south it must be only eighty to a hundred miles farther on and yet on all sides, south as well as north, the sky was white with the glare of ice. "Good on yer, Discovery!" they had shouted. "Bring him back safe!"

That evening, still in doubt, we anchored with ice-hooks to a giant floe and waited for the ice to open a little.

It was here that an incident occurred which I can hardly set down without a blush. As we lay thus anchored to our floe in the smooth dark pool of water a whale, prompted by the strange fearless curiosity of animals which have not learnt to dread mankind, arose from under the floes and dived and snorted around the ship. One of the activities of the expedition was the marking of whales, in order to trace their migrations, with lead-nosed darts about a foot long fired from a shortened twelve-bore gun. We carried one of these specially adapted guns in a rack in the laboratory where it remained almost permanently for the *Discovery II* was too big for the pursuit of whales and could not be



Photo F. C Frasci

managed easily enough to get near them. From the William Scoresby many hundreds had been marked with these numbered darts since she was a smaller and more manageable ship. Nevertheless we did our best from the deck of Discovery II whenever a whale was prompted by its curiosity to come near enough. And here in this dark still pool was a chance in a thousand. I loaded a dart into the breech of the gun and stood in a sporting attitude on one of the wooden platforms which the airmen had built out from the poop. I knew that I was a rotten shot but no one else did, so I felt that my attitude was of the highest importance. The whole ship's company, sailors, cooks, stewards, firemen and the Australians, waited with breathless interest. Upon the platform, about eight feet out from the ship's side, I stood perhaps ten feet above the water. Down in the darkness beneath me there glided slowly upward a huge cigar-shaped darker shadow. A great triangular head broke the surface, gleaming not twelve feet from where I stood with my gun cocked—a perfect target. "If I can't hit this," I said with nonchalance, "I'm a Chinaman." I aimed and fired. The dart plopped into the water at least a foot from the gleaming back which, unperturbed, wheeled slowly over and disappeared into the darkness, scarcely troubling the surface. The momentary silence that greeted this effort still rings in my ears louder than the burst of laughter that immediately followed it.

The Captain was asleep but when he awoke I permitted myself a slightly more committal prophecy. I said, "There was a Fin whale around the ship an hour ago. There may be open water not far off." But over the rest of the story I drew a decent veil.

On the other side of the Antarctic Continent the Wyatt Earp found Charcot Island, from which she hoped to make search flights, wrapped in fog. A heavy swell ran into the pack-ice which girdled the island for fifty miles, lifting the flocs and pounding them together so that the aeroplane

could not take off. Heavy and impenetrable ice stood between the open sea and the land and barred all progress. Sir Hubert Wilkins, deciding not to wait, pushed westwards parallel to the coast of Antarctica, making also for the Bay of Whales and hoping to pick up radio signals from Ellsworth on the way. On the day when the Discovery II lay anchored to her floe waiting for the ice to open in the middle of the pack-ice belt, the Wyatt Earp reached the entrance to the Ross Sea but was pushed northwards by the northerly trend of the heavy ice that lay across her path.

The original plan had been that the Wyatt Earp was to have made search flights from Charcot Island and to have laid depots also at two other points on the coast of the Continent between there and the Ross Sea. When we heard that she had abandoned this plan and was heading westwards with all speed, making no further attempts either to make search flights or to lay depots, we hoped, forgivably perhaps, that we should reach the Bay of Whales first. We had the advantage of power but the Wyatt Earp was on the whole far better adapted for pushing through ice since she had a stout wooden hull, as against our shell of steel. In spite of ourselves we were glad that the Wyatt Earp was being pushed northwards on the day when, chafing at the delay, we lay and waited for the ice to open.

The daylight night throughout which we lay anchored to our floe passed into a grey morning and, getting under way early—for the ice had opened slightly, we ran suddenly and thankfully into a large open lead among the floes—a lake of iron grey water about two miles long, walled with whiteness and ruffled by a biting wind.

Oates, the Third Officer, came into the laboratory wearing enormous sea-boots, windproof jacket and Balaclava helmet. He said, "Douglas is going up in the Moth to reconnoitre. Any volunteers for the pram? He wants the pram to tow the machine into open water."

Tired of sitting still Marr and I volunteered. Then,

suddenly remembering about prams, I wished I had not, but it was too late.

"They're lowering the pram over the side now," said Oates. "We'll be ready in a quarter of an hour." On the roof of the hospital the Moth, its silver wings outspread and its canvas nose-bag removed, was being coaxed by one of the mechanics. Douglas in his flying suit and helmet was in the cockpit, coaxing from within. Presently there was a warning splutter and the cold air was rent by the increasing crackle and drone of her engines. Then the noise stopped and with the derrick they lowered her like a great dragonfly on to the water where she straddled on her enormous yellow feet, nose towards the ship's side. We, in the pram, were to tow her tail first away from the ship and out into the middle of the open lead so that she could take off. The motor-boat was to come out from the ship and, in her turn, tow us back. It was not possible for the motor-boat to tow the aeroplane away from the ship herself for the reason, among others, that she was untrustworthy. This had to be done by arms and back muscles—in this case, thought I apprehensively, by the arms and back muscles of Marr and myself.

The motor-boat was a lady. She was a thing of whims and caprices and sudden fancies. She responded to blandishments of the right kind but often, choosing her moment with astonishing care, she would give a warning splutter or two and become suddenly mute as the grave—often miles from help. When this mood took her, the seaman, whose capricious charge she was, would dive into the cubby-hole that housed her engine and remain there tickling, coaxing, priming, cursing while the boat slowly drifted. Meanwhile someone else almost broke his back at the starting handle. Presently the seaman would emerge sweating and red in the face and would say, well! he was damned if he knew. The unfortunates stranded in the boat were damned if they did either. Many times, through field glasses, this creature of

uncertain temper had been seen drifting, filled with forlorn figures, out to sea from King Edward's Cove, South Georgia. But usually, after an interval of fearful despair, she would recover her temper and start again. Whereupon everyone said that she would never be trusted again and that the internal combustion engine was an invention of the devil. But, needless to say, she always was.

Marr and I slid down the falls of the forward derrick by which the pram had been lowered into the water and sat there waiting. It was very cold. The ripples on the surface of the water seemed to be magnified where we sat so near them into giant waves and they sent the pram bobbing up and down like a cork. The grey bulk of the ship's side towered above us like a cliff. The trouble began, of course, when at a signal we set about towing the aeroplane tail first away from the ship, for Marr shipped his oars in order to take hold of one end of the tow-rope passed through a loop under the tail of the Moth. At a word he could cast adrift by letting slip the end he held. Oates had an oar out over the stern of the pram to act as a rudder so that the pulling was left to me. "Give way there!" said Oates. I gave way. One of my oars was shorter than the other and the pram immediately spun round like a saucer. It jerked the steering oar from Oates' hand and we watched it float away beyond recovery—a line among the choppy waves which sent up a tiny splashing upon its weather side. Oates took one of the oars which Marr had shipped and used it with vigour when the next stroke sent the pram spinning top-like round the other way. (Laughter from the audience watching over the ship's rail.) But we got the Moth out into the fairway. By the time we got her there I had already raised blisters on my hands and my muscles ached. I had caught several crabs and, with the rolling and bobbing of our tiny cockle-shell, had frequently failed to get one or the other of my oars into the water at all, knocking the tops off the waves and sending showers of spray over Marr and Oates.

I was glad when Oates, at a signal from Douglas in the cockpit of the Moth, said "Easy there!" and I was able to rest on my oars, though not yet on my laurels. One of the mechanics, standing upon the float of the aeroplane, turned the propeller (or better perhaps, the "prop") and with a stuttering roar the engine started. Marr slipped the towrope and, to my relief, took the other pair of oars. Moth taxied away from us with the mechanic still standing on the float and we pulled like ten men after her. suddenly we heard the engine of the Moth stop and, looking round, saw her for a horrid second lift one of her great feet out of the water and dip the other wing towards the surface. The mechanic staggered and clutched at the struts for a moment and she righted herself. The engine roared again. We pulled up to her and the mechanic jumped into the Then she was off. Plumes of spray shot outwards from her floats as she rushed towards the other side of the lead. When we thought she must surely strike the ice floes on the farther side of the great stretch of water she rose and became a bird, soaring with grace and power round and up towards the hurrying clouds. Soon she was a tiny insect alternately veiled and revealed by the shifting grey wraiths through which she sped.

But now we had to get back to the ship which, unable to remain long stationary for fear of ice floes drifting down upon her, had during the whole of this time been cruising slowly round the lead. She was now a little toy ship nearly two miles away. Of the motor-boat which was to tow us back to her there was no sign. She was apparently in a bad mood. Against the wind we pulled. Marr and I had the only pairs of oars so that Oates and the mechanic, sitting on the stern thwart, could do nothing except offer to take a turn from time to time. And to allow this we were too proud. Before long I wished we did not have to be so proud for the stiff and freshening wind was against us and the rising chop on the water lolloped loudly against the

shallow upturned bows of our silly little boat. At every stroke we drifted with the wind farther back away from the ship and nearer to the long floe which bounded one side of the lead. Now we could see the little capes and indentations on its low, white cliffs and the sapphire blues that lurked in its hollows. Now we could hear the waves flipflapping against it where it overhung. My wrists and forearms, unaccustomed to so much exercise, were now aching so that they were almost useless. Water blisters had burst on my palms and the tips of my fingers were icy cold. But James Marr pulled steadily and evenly as a sailor pulls, or as I have seen Cornish fishermen pull, sitting a little sideways on his thwart. As for me, I caught crabs. I chopped the waves. I sent up glittering showers of spray. And we made no progress at all for every second the floe astern of us drew nearer. Three penguins shot out of the water on to it and stood watching us with fatuous and infuriating unconcern. "Take it slowly," said Marr. "You'll find it much easier." I had been pulling with short strokes largely to get my oars in at the troughs of the waves so as to knock the tops off them as little as possible with the backward sweep of the oar. But even when I altered my stroke we made very little progress for the wind was freshening every minute. Suddenly Oates said, "Keep it up. The motor-boat's coming." I looked over my shoulder and saw her, with relief, as a black speck far off with plumes of white at her bows. It was an encouraging spectacle. My waning spirits revived. "The last lap," I thought and, redoubling our efforts, we kept abreast of the wind or even, perhaps, made a little headway. Soon we could hear the splutter of the motor-boat's engine and could see the figures in her. It was almost over. Very soon she would pick us up. We rested on our oars, panting, seeing stars, warming our icecold fingers, waiting thankfully to be picked up. As we waited and gave thanks we drifted without noticing it back before the wind the whole of the way we had come and farther so that the low cliff of ice enlarged towards us again. But we did not care—it did not matter now. The blood came back into my finger tips with a kind of pleasantly endurable pain. Suddenly we became aware of silence. The motor-boat's engine had stopped and she, too, was drifting on to the floe broadside on to the wind. We could see three dejected figures in her peering down impotently while a fourth bent convulsively over the starting handle. And for us there was nothing for it but to begin all over again. Despair took hold of us. We said wearily, "Now I suppose we'll have to tow the damned motor-boat." And the ship was farther away than ever, seemingly miles away, a speck without motion. Luckily, however, one of the Australian mechanics was in the motor-boat. He knew the language and spoke it as a lady likes to hear it, but even he afterwards confessed himself nearly baffled by this beauty. "The old cow sure nearly had me beat," he said. Just as the motorboat was almost on to the floe the engine, yielding to Australian blandishments, stuttered into life. Advance Australia! Made fast to her stern we thankfully but wearily rode home, our saucer-like bows high out of the water, flapping against the waves and throwing aside showers of spray.

The Moth came roaring down out of the clouds. She raced low over the ship and, banking round a mile away, came gently to rest with her nose to the ship's side—an exhibition of skill which drew a murmur of admiration from the crowd watching from the decks. From two thousand feet up among the grey veils above us Douglas had seen a close mosaic of irregular white patches upon a matrix of inky black. It stretched in every direction as far as the eye could see. Here and there were broader streaks of black. Far below him the ship, tiny and alone, was a speck in this gigantic white crazy pavement. "No open water but good leads," said Douglas, coming down from the cockpit. "And my word! You didn't half look lost and lonely down there!"

We got under way again. Next day Douglas went up once more in the Moth but when Oates came into the laboratory asking for volunteers I, for one, said that I would go like a shot were I not suddenly and unaccountably busy that morning. He found an ordinary seaman who did excellently.

The same day the Wyatt Earp turned south again and, with the wind behind her, pushed on in hot pursuit through long leads of open water. She gained on us that day and we began to think that all our labour and the Captain's anxiety had been in vain. But that evening, white against a dark sky, there shot up suddenly in the distance a plume among the ice floes. It hung and vanished. Then another and another. I permitted myself to prophesy again. "Those are Blue whales. There must be open water ahead."

Very early next morning the floes thinned out and, in a little over seventy-three degrees south, we left them and came into another world. A gigantic iceberg nearly two hundred feet high stood like a bastion guarding the way. We had won.

CHAPTER XVI

INTERNATIONAL

"IF that's Little America," said the ginger-headed sailor for the tenth time, "they can keep it," and he handed me back the field glasses through which he had been gazing from the bridge into an indistinct white distance. Far away the Moth, only just visible, was describing slow circles, a tiny dot in the white glare of the sky.

We were in the Bay of Whales, in seventy-eight degrees south—the farthest south that it is possible for a ship to reach, and beyond that vague blank distance the way lay clear to the South Pole across hundreds of miles of ice, snow, silence and utter loneliness. We peered into it with field-glasses and telescopes perched in the rigging, clustered upon the bridge or upon the roof of the hospital, the highest points we could find from which to obtain the widest view possible of the white expanse that lay before us. There was an air of excitement and expectancy.

We were cruising slowly round and round the bay, sometimes approaching the great jutting headlands of ice that flanked it, sometimes standing out in the wide centre of the gulf and sometimes again moving slowly along the edges of the ice floes that lined its inner shores. It was evening but an unenthusiastic daylight, pastel grey, shone coldly upon a scene of complete stillness and brooding quiet in which all life seemed to be in suspense. The evening indeed was only a slow decline of the sun from a lowly zenith without the promise of rest, marking no end. It passed without intervening night or hint of sleep into a morning unheralded and without mystery.

It was in truth another world into which we had come where the ears and eyes played strange tricks. After we had left the pack-ice early on the previous morning the sky about noon glowed with a livid glare to the southward as though we were steaming towards a brighter day. The horizon on all sides shimmered and danced as though in the heat of high summer and there stood up from it, floating in mid-air, palaces and citadels, topped with towers and blue with distance. Yet when the ship came up to them (apparently with unnatural speed) behold! they suddenly and most surprisingly diminished, dwindling down to little lumps of ice no bigger than doll's houses, bobbing past her sides. For the cold air, warmed at its contact with the water's face, produced a mirage effect which magnified to monstrous dimensions all distant objects, lifting them off the sky-line. Against the white glare in the south there appeared what seemed to be a pencil line of cloud low over the horizon. It thickened in the centre and its ends crept steadily outwards, tendril-like, towards the east and west. In the afternoon the centre of the line welded itself to the sea, turning from shadow to a dazzling whiteness, and there stood before us the great Ross Barrier, an even cliff of solid ice a hundred feet high whose dead level top smoked into the glaring sky with updriven snow that writhed and curled about its edges. East and west it lifted itself from the sea and seemed to become a line suspended in mid-air. At its remotest ends it vanished as a tiny pencilling etched upon the sky and a row of uncertain dots dancing and shimmering in its own reflected light.

Since we were south of the Magnetic Pole the compass, as we steamed south-eastwards along the barrier face, cheerfully insisted that we were travelling in the opposite direction and its south needle pointed north-west. Over the blue, wind-ruffled sea, there spread and shifted and fled before the wind wraiths and serpent-coils of vapour as though the water were steaming hot, for the slightly warmed layer of atmosphere above the water's face caused evaporation which instantly condensed on contact with the colder air into a vapour—"frost smoke"—and in the wake of the ship,

where the outflow of her condensers warmed the water a very little more, the coils of vapour thickened so that we left behind us a living trail of steam. The sky above the barrier shone with a fierce reflection that hurt the eyes and above the sound of the ship's bow wave you could hear a great puffing sigh coming from that white wall, a sound of melancholy and sorrow. It was the gentle swell complaining beneath the overhang of the steep cliffs of ice. Schools of Killer whales, with their high triangular fins like sails and their jazz-patterned black and white bodies, leapt snorting through the water near the barrier face.

The Bay of Whales opened wide arms to us. Two high flanking headlands of ice, jutting out into the sea, fell back and sloped down irregularly to a field of ice-floes which lined the inner shores of the wide bay, the calm grey surface of which was dotted also with floating islands of ice carved into terraces and strange shapes. Beyond the locked expanse of floes we could see the surface of the barrier rising southwards with gentle undulations smooth or crevassed—a featureless land of utter desolation, dazzling white, frightening in its barrenness of life and silent hostility. It blended into the whiteness of the sky so that you could not tell which was the world beneath and which the heavens above. There was no sky-line, only an upward arching of sheet white to the zenith where little grey cirrhus clouds hung motionless. But, peering at the blank face of that dreadful land through glasses, we could see some tiny black dots far away beyond the field of floes and beyond the white undulations that rose up from it.

"If that's Little America," said the ginger-headed sailor for the eleventh time, "they can keep it."

The Bay of Whales is well named. As we steamed slowly up and down the calm extent of it, schools of great whales threw up into the still air their slender plumes of spray. Sometimes twenty or thirty dark backs wheeled slowly over, far off or near, their high sickle-shaped fins cutting the

water, leaving behind them a smooth oiliness—a "slik" where they dived again. They cruised spouting along the edges of the ice floes or turned and headed out to sea where against the sky we saw their plumes rise up. Again they rose and blew near the floating ice-islands in the middle of the bay or, in curiosity to see what this strange visitor might be, they came singly or in groups to wheel and spout around and under the ship. We could see their huge bodies glide beneath us, flippers outspread, like submarines in the dark translucent water. When their flat heads, gleaming, broke the water their expanded nostrils blew out a fine cloud of spray which hung in the air and left behind a warm, rotten stench. They were Minke whales which live in cold waters among pack-ice. These are smaller than the Blue and Fin whales hunted by the whalers, but those in that most southerly of all the world's harbours were giants of their kind and the sound of their blowing broke the silence of the place as a series of sharp distinct puffs. Sometimes the high fins of Killer whales rose up in the bay and then, strangely, the others disappeared until those sinister black shapes had gone

We crowded on to the bridge, on to the roof of the hospital, into the rigging, peering in eager excitement southwards to Little America. The Chief Officer fitted a rocket to a stand and let it off. It shot up into the pale sky and exploded with a crack into a shower of gold. The barrier answered with echoing explosions all around us. The sound of them wandered away among the white capes and headlands and was lost. There was silence, all the deeper for this disturbance, except for the sighing of the sea beneath the barrier face and the puffing spout of whales.

On the barrier face, high above the sea, there was a little triangular object, dark against white—a tent perhaps. Near it something fluttered from a pole, a dark thing, a flag, the only movement on that marble stillness, flapping and beckoning in the gentle wind.

"That's Ellsworth's camp," said someone knowingly. But nothing moved near it.

"There they are!" shouted another. "Look! High up on the barrier!" Breathless we turned our glasses in the direction in which he was pointing. On the ice-headland a hundred feet above the bay stood four tiny black figures, human figures, motionless, watching us. Then we knew. A horrid thought began to take shape within us. Wyatt Earp had after all beaten us and come here first. The fliers had been found and they and their rescuers stood now watching us from this vantage point. At present they were too far off, of course, to make any signal, but when we drew nearer they would wave. We shouted and hallooed, but still they made no movement except to change their positions slightly. Perhaps they were still too far off. We steamed slowly towards the ice-cliff where they stood and shouted and waved again. But the four penguins high above us only threw out their white chests, shook their flippers and graciously bowed their heads from their exalted perch. After all, what business was it of theirs?

There was no sign of life in the little camp high up on the ice-cliff and no movement save the silly meaningless fluttering of the flag, or whatever it was, beckoning from its pole. Two more rockets shivered the silence and fell in showers of gold, but they called nothing to life except echoes. Douglas and Murdoch took off in the Moth and the drone of their engines was soon lost to us. They became a tiny circling dot where the sky and the white world merged. The mechanics began to assemble the Wapiti and already she had her wings outspread where she crouched upon her platform. The rest of us watched the Moth wheeling slowly far away over Little America. In that all-pervading universal nothingness, Douglas said, it was almost impossible for him to know which way up he was flying or, indeed, to have any idea of direction at all without looking at his instruments, for above and below and all around was the same sheet white, without form and void. Nothing fell away beneath him when he rose or rushed upwards when he came down. There was nothing by which to judge height or speed or direction except the slender, scarcely visible, needle-like masts and poles of Little America. "My word!" said Douglas when he had returned. "It's like flying in a bowl of cream." They flew low over Little America. Watching through glasses from the ship we saw the dot in the whiteness of the sky ride downwards. They dropped a parachute with a metal cylinder containing biscuits, pemmican, meat extract, cigarettes and matches (and the raisins in their little brown paper packets—my quota!). Swaying it floated down and landed some twenty or thirty yards from the poles and masts that marked the buried township. Suddenly from a hole like a rat's burrow in the snow a figure ran out. It stood gazing upwards at the circling aeroplane for a second or two, waved an arm and walked to the dropped parachute. Douglas waved in reply and sped back to the ship. We watched his return with clamorous excitement. "What luck? Any sign of life?"

"One of them is alive at any rate," he said. "We'd better bring him aboard."

"If that's Little America," said the ginger-headed sailor completing the dozen, and I feared the worst. But he said, "All I can say is he must be bloody glad to get out of it."

Herbert Hollick Kenyon was Ellsworth's pilot. He flew the *Polar Star* and was an Englishman, but had lived for many years in Canada. He climbed aboard from the motor-boat, having come with athletic speed and sureness of foot on snow-shoes from Little America directly he had sighted the Moth circling above the buried camp. It was he who had run out and waved. The motor-boat met him at the edge of the ice field and as he climbed aboard up the rope ladder we lined the rail and cheered him. He was shaved, washed and spruce and exuded an air of well-being which, we had to confess, was something of a disappointment to us. We had conjured up in our imaginations thin features, covered by a matted growth of beard and wasted by weeks of starvation diet in a twilight cell buried beneath the snow. But his cheeks shone from a recent shave and his stalwart frame in a check shirt showed no signs of anything but abundant health and vitality. He sat down, slowly filled and lighted a pipe, and said:

"Well, well! The Discovery, eh? This is an affair. But, I say, it's awfully decent of you fellows to drop in on us like this. Thanks, I'll have a whisky and soda."

A silence fell upon us—the kind of silence that falls at an amateur dramatic performance when by accident the curtain comes down in the middle.

Presently someone said, "Where's your aeroplane?" much as he might have said, "Where's your horse?" to someone who had just come aboard in riding breeches.

"The aeroplane? Oh, that's twenty miles away on the barrier. You see, we ran out of gas."

"Did you crash?"

"Good Lord! No. We landed perfectly safely and walked in. The aeroplane's all right. We'll have to go and get it presently. . . . Food? Oh, rather. Any amount at Little America. So much we hardly knew what to do with it. Byrd told us where to find it. . . . No, we weren't worrying. We knew the Wyatt Earp would come along sooner or later. . . . Pity about the radio. The transmitter switch went wrong. . . . Yes, we landed all over the countryside during the flight. Whenever the weather got a bit thick you know. . . . Ellsworth? Oh, he's all right. He's got a bad foot but he'll be along to-morrow."

"So you had no hitches at all?"

"No. None at all. Oh, yes! One slight hitch. Ellsworth left his spectacles in the aeroplane twenty miles away so he can't read, poor old chap!"

But when Kenyon had gone out from the hut buried

fifteen feet beneath the snow saying he would be back soon, his bulk darkening for a few seconds the rat's burrow that led down to it, and when the crunching of his snow-shoes had died away, Lincoln Ellsworth was left alone, lying on a wooden bunk amid a silence that could be felt. A kind of luminosity rather than a light filtered down from the skylight above him from which the even covering of snow had been shovelled away. It was a double apartment lined with wood in which he lay. The outer one was almost dark, but at the far end of it there shone another patch of pale light where the outer day crept down the nearly vertical tunnel of snow, just wide enough to admit a man, which he and Kenyon had dug down to the entrance of this desirable residence. Near the bunk was a coal stove with a chimney that led up through the roof, but it was not lit. They used it no more than they could help since the coal, in a little cubbyhole on the left of the entrance, was beginning to run short. Already they had been obliged to chop down some of the woodwork to help it out. There was therefore a kind of chill stuffiness in the room, a shivering airlessness denying all comfort and laying clammy fingers upon the spirit. On a rickety table near the bunk the contents of the parachute container lay spread out as Kenyon had left them, with a note from the Captain of the Discovery II announcing his arrival. They had touched none of it. They were not hungry. In one or two places high cones of snow stood piled up where the woodwork that lined the room was beginning to gape and near the stove it had dissolved into a slushy mess. A door leading off the room was jammed with infiltering snow and would neither open nor shut. It was utterly dreary and comfortless. Nothing is more desolate than the relics of human habitation left behind by people long since gone away taking with them their personalities, their hopes and fears. In the outer room, which must have been a radio room, were old batteries, plugs and switches and much disordered electrical paraphernalia. In both

rooms there were movie stars pasted up on the walls, radiating S.A. into the chill silence and unresponsive gloom, and old calendars counting up dead days. There were books lying about affectionately inscribed. "Wishing you the best of luck." "Good luck and a safe return." But those wishes were for some one else, unknown, who had read them long ago and gone away, gone home and returned safely from these solitudes and left each one lying there with its message. There were copies of old American magazines, The New Yorker, The Saturday Evening Post. All that was amusing and chic and of importance in 1933 lay between their torn and faded covers. Several years old though these were they would have been better than nothing for Ellsworth, but he could not read because his spectacles were twenty miles away in the Polar Star, which lay out there upon the barrier face, tamped down and secured against storms. So he just lay on his bunk and the pain in his poisoned frostbitten foot throbbed, amid utter silence and loneliness—the most southerly human being in the world, in a wooden hut buried fifteen feet beneath the snow and ice of the great Ross Barrier, a very brave man but no longer a very young one. For him the Antarctic was not so funny. But near him, on a nail, hung his most treasured possession, and during the four slow weeks, through so much of which he had lain thus, he could look at it and take courage, remembering all that it stood for. It was a leather ammunition belt with no ammunition in it.

If you have been sharing a chilly twilight cell for four weeks with even the Archangel Gabriel himself, you are not too sorry when at last he removes his angelic presence and leaves you alone. It is personal idiosyncrasies, the little mannerisms and habits that people have, the nervous tics they develop, which, as we ourselves knew, drive you almost to insanity. It is not so much hardship or lack of comfort, or a pain in the foot, or a soul deadening chill in the air, or hope deferred making the heart sick, or the American

calendars for 1933 staring stupidly down at you from the walls. It is lying in a bunk all of a twilight night and most of a twilight day—lying there pretending to sleep in order not to burn the precious fuel in the stove—listening to the other man (or even the Archangel Gabriel) puffing at his pipe, or hearing him sniff, or rattle the pages of an old newspaper, or move restlessly about the tiny room. And there is something maddening about the way other people go to bed. Nothing is so individual or expressive as the nightly routine with which a man prepares himself for rest. The way he folds his clothes or walks about with his braces dangling, or his fixed habit of stripping to the waist and washing before he takes off his trousers carry within them the seeds of some horrid crime. It is a wonder that no one has ever been shot for the way he cleans his teeth. After four weeks of close companionship the fountain of conversation dries up. There is nothing more to talk about, but the silences are filled with irritating and antagonistic sounds, the little trivial sounds of someone else doing something for the hundredth time.

Yet the monotony of these days was broken by certain chores which made welcome islands of action in a sea of inactivity. They took it in turns daily to walk the seven miles on snow-shoes to the little triangular tent on the barrier face overlooking the sea. The trail to it was marked by a line of infrequent flags, faded and tattered, left by the Byrd Expedition. On a pole near the observation tent they strung a wind sleeve to make the place more conspicuous and every day this thing nodded and beckoned into nothingness with silly meaningless movements. But no ship, no hopegiving speck, appeared on the hard or shimmering horizon. Daily the whales threw up their spouts and wheeled over in the bay, and that sad sighing of the sea under the barrier cliff was the only sound that broke the silence. Every day also, they had to clear away the snow from the burrow that led down to their door for snow, falling softly or whirling down,

repeatedly filled it up as though something were trying its utmost to block them in. But apart from these tasks and the cooking of their frugal meals of corned beef, pemmican and tinned foods nothing marked the days which passed into one another without so much as a change in the grey twilight that shone dimly through the window in the roof or through the tunnel at the end of the outer room. The Wyatt Earp would come in time, of course. Of course she would—they supposed. Anyhow they had plenty of food, enough to last, with care, over the winter, the six months of night. And fuel to last, if they remained in their bunks nearly all day and stripped down some wood to help it out, for perhaps another six weeks. For another six weeks of going to bed, folding clothes over the end of the bunk, of lying on the bunk gazing at the calendars on the wooden walls, of plodding out to the observation post and of shovelling away from the entrance the snow which constantly piled up anew. For another six weeks the sails of the wind pump on the mast outside the burrow revolving drearily and in useless futility, squeaking and clacking as they turned, the moan of the wind and the little eddies of snow that blew down the burrow with a soft hiss and whisper. And when you put your head out of the burrow a distanceless world without horizons, unrelieved, white, pitiless, cold.

Lincoln Ellsworth had become familiar with that white world on his ten days' trek, pulling his home-made sledge, from the *Polar Star* twenty miles away. He knew its tricks—how it makes far objects appear close and near objects strangely far off. How you trudge doggedly on towards something that seems within shouting distance only to find, as you plod on, that it steadily recedes. He had learnt how valleys and hills and plains, whose presence you do not in the least suspect, suddenly reveal themselves out of what had seemed to be an unbroken expanse or a gentle slope. You plough along sweating, hot and breathless and then, when you stop for a moment to rest, you become almost immediately

cold. He had found out how easy it is to lose your sense of direction in that void and how, even on snow shoes, you tread unevenly, parts of the surface giving way softly beneath you and parts of it hard like a pavement. As they trudged their twenty miles from the aeroplane to Little America there suddenly rose up before them one day, like a high wall, the sea. The solid, flat horizon strung out before them replaced suddenly the blend of white world and white sky which for several days had served for distance so that they had become used to it. For they had two charts each of which showed Little America in a different position and the Providence which guides the feet of travellers had guided theirs to the wrong one. They stood at the sheer edge of the barrier cliff. Wearily they turned about and plodded back into the whiteness pulling behind them the sledge with their gear piled upon it. At night they pitched a tent and camped—a dot in that whiteness. And when at last they saw the masts and poles of Little America, pricking up through the great white winding sheet that was the world, it seemed like home. They had to set to work at once and dig their way down to the hut. It was chill and comfortless inside but it was a habitation. It was a roof over their heads anyhow. Yet after four weeks it seemed to Ellsworth, lying on his bunk listening to the throbbing pulse-beat of pain in his foot, like hell.

After Kenyon had gone Ellsworth lay for hours through a lonely daylight night. Suddenly, when it was morning, there was a sound of someone returning. Snow crunched outside the burrow, there were voices, and six men slid down the burrow one after the other, feet first into his home from home. They fell instantly and ravenously upon the contents of the parachute container which lay on the rickety table by the side of the bunk for, setting out early across the ice, they had eaten no breakfast. Outside the hut they had a sledge ready and on to it they piled the kit-bags that contained Ellsworth's belongings and Kenyon's. But the leather



Photo Mfred Saunders, F.R.P.S.

Lincoln Ellsworth and Hollick Kenyon

ammunition belt with no ammunition in it, Ellsworth took himself. For the last time, with no regrets, he climbed out of the burrow from the chilly tomb which had been his home for four weeks. Before they left, Richard Walker, Chief Officer of the Discovery II, took a board and wrote on it in pencil:

"Last visited by party from R.R.S. Discovery II after relief of Ellsworth Trans-Antarctic Expedition, January 16th, 1936."

They signed their names beneath it and left it there.

In spite of the pain in his foot Ellsworth took a hand at pulling the sledge on this the last journey he had to make over the barrier. When they begged him to sit on the sledge and be pulled along himself he stoutly refused and said he was doing fine. They made slow progress and the going was hard. The sledge was heavy and stuck frequently and Ellsworth's foot, for all that he might say and however much he stuck it, pained him.

Between the barrier where it sloped down to the sea and the field of sea-ice that covered the whole of the inner part of the bay, was a large crack caused by the rise and fall of the tide. On the outward journey Kenyon had guided the relief party to a point where they might cross it with planks and, having seen them safely across, had gone back to the ship. On their return to this crack with the loaded sledge they found it had widened and the planks which they had left bridging it had floated away. Within the narrow limits of this slit of water several great whales plunged about and thrust up their grinning, triangular heads, thrashing the water as though imprisoned. And the planks were floating on the farther side. Two of the seamen with the party jumped the crack to retrieve them. The first leapt safely on to the floe on the other side, but the second missed his footing and, staggering for a moment, all but fell into the pool. But his companion caught him and the planks were retrieved. Across this low and precarious bridge, under and around which the great whales lashed the water and blew out their foetid clouds, the sledge crossed over, the planks bending under its weight. Lincoln Ellsworth followed carrying his ammunition belt. Thence it was an easier pull to the motor-boat waiting at the edge of the ice to take him off to the ship.

In the wireless-room on the upper deck the operator was bent over his instrument. He was making the still air of the Bay of Whales pulse and vibrate unknown to us with yet another sensation, streaming out across some eleven thousand miles to replace for a day sensations nearer home. For us the tensely exciting drama took a less sensational form than it did for those who read their headlines far away on the other side of the earth, for in the wardroom there stood an elderly man with a brown, wrinkled face, very blue eyes and close-cropped hair. He wore a windproof jacket and long canvas snow-boots bound round his calves. He smiled broadly with beautiful white teeth and said to each of us in turn, "Pleased to meet you." In his hand he carried an empty ammunition belt.

CHAPTER XVII

LITTLE AMERICA

WYATT EARP was a Texas border marshal who lived during the time of the Civil War—or so we understood. He could shoot straight from the hip with two guns at once and was quicker on the draw than anyone else in the county. He could knock the necks off bottles shooting from the hip at forty yards and he never killed a man except in self-defence. But I rather think they got him in the end. He was Ellsworth's hero, plain, straightforward and full of guts like Ellsworth himself. It was his ammunition belt that hung now from a hook in Deacon's cabin which Ellsworth occupied. It had made the flight with him in the Polar Star across Antarctica. He had carried it on the long trek across the barrier and it had hung in the hut at Little Amerca during those four long weeks, instilling courage and hope into the elderly man who lay on the bunk, drawing from it spiritual fire.

The little ship now forging southward through the ice after us bore the illustrious name of this legendary figure. We met her after a short scientific cruise in the Ross Sea. It was a cold, grey, foggy day and we could see through glasses, when she was still a long way off, the words "Ellsworth Expedition" blazoned in huge white letters on her black sides. She was a sealer and had a stout wooden hull, a fine, sturdy little ship. Her diesel engine shot upwards little sharp puffs of smoke from her funnel and amidships she carried the *Texaco* 20, a Northrop monoplane, which also wore its name in huge letters on its fuselage. The *Texaco* 20 was to have made the search flights from Charcot Island.

The Wyatt Earp tied up alongside the barrier, for during our three days' absence a southerly wind had loosened much

of the sea-ice so that large chunks of it had floated away. The bay had altered its contour and in some places where the barrier sloped gently down to sea-level there was now no longer a mass of interlocked floes but open water. In the place where Byrd's City of New York and Eleanor Bollen had come alongside, the Wyatt Earp made fast to the barrier with ice-anchors and lay there as at a quay. Near her was a large gaping crevasse whose depths held a limpid blue gloom. It was opening slowly so that the ship had to change her place after a few days. We, however, continued to cruise very slowly around the bay among the spouting whales which continually dived around and under us with apparently insatiable curiosity.

The morning after our meeting with the Wyatt Earp the sun shone from a pale, clear sky streaked with clouds, which seemed to have been drawn across it with a painter's brush. The bay was blue within the white arms that embraced it and the floating islands of ice glittered like cut glass. Marr, Deacon and I decided that we must see Little America of die. I nearly did both. Some of us thought we would make the expedition on skis, others voted for snow-shoes. I, arriving late on the scene, found only one pair of snow-shoes left. They were an old pair and had no straps, but I made some out of cord and felt that I had been very clever. Extraordinary how resourceful one becomes! thought I, and looked at them with pride. As a result of innumerable expeditions of this sort in South Georgia, the South Orkneys and the South Shetlands we had, in the light of experience, reduced picnicking to a fine art, or so we thought. No expedition was considered properly fitted out that did not involve carrying voluminous paraphernalia consisting of a stove and several billie-cans, pans, mugs, a change of clothing for each man and enough food for an army. Or so it seemed when you were carrying it on your back. No man was considered properly equipped who did not carry on his back an immense ruck-sack bulging and shapeless with everything that one might possibly be imagined to want during the trip. So much thought always went to these preparations that not infrequently it was found impossible, when the time came, to light the stove because we had thought of everything except "primus" prickers or methylated spirit for starting Or some other small but significant detail would, by its absence, reduce all our forethought to vanity dust and ashes. On this occasion each of us had a ruck-sack which felt like a ton weight but we had a sledge on which we could load our burdens and pull them along so that they seemed less formidable at the start of this expedition than was usually the case. We rowed in the whaler across to the Wyatt Earp where she lay at the barrier edge and made the boat fast under her counter where she bore her legendary name "Wyatt Earp. Aalesund." Fair-haired Norwegians with immense golden beards (her crew were all Norwegians) stared at us stolidly over her rail as we unloaded our skis, our snow-shoes, our ruck-sacks and our sledge on to the ice. From the foremast of the Wyatt Earp the Red Ensign fluttered, from her mainmast the Stars and Stripes and from her stern the flag of Norway. The Australian mechanic who came with us was irreverent about this display.

"Looks like she's got her washin' hangin' out!" he said. Everything went amiss with me from the start of this expedition. It was the crevasse in the first place that was my undoing. But if you think that I fell into it and have already begun to picture me imprisoned in that icy chasm while my companions desperately tried to reach me with ropes, your fears are groundless. But it was a disaster scarcely less embarrassing that befell me. For on leaping from one side of the crevasse to the other to put on my snowshoes my braces gave way with a crack. I had that dreadful feeling of waning confidence and ebbing hope that this familiar predicament produces. There was something malign about this, I felt, for these braces were of stout canvas, bought from the ship's canteen four years ago. I had worn

them continuously since then and they had shown no signs whatever of being beyond their job. I had every faith in them, believing them to be tried and true. They chose this moment in which to let me down and it was like being let down by a friend. But even if your trousers are not coming down it is not easy to walk on snow-shoes for the first time. You must plant your feet wide apart as you walk and lift them, otherwise they foul one another and you constantly trip over yourself. We had to ascend a steep slope to begin with, on the crest of which stood the first of the flags placed there by the Byrd Expedition to mark the trail to Little America. From the top of the slope mile after mile of unbroken gently undulating whiteness unrolled itself before us, and below lay the great calm expanse of water in its embrasure of ice. The Discovery II moved slowly and minutely across its surface and the spout of whales, followed by their black fins, appeared singly or together now close in shore and now far out in the bay. Far off across the field of sea-ice several motionless black shapes lay like corpses huddled together, a colony of Weddell seals.

When I had gained the summit of the ridge I was sweating, hot and had tripped several times over my snow-shoes. The binding, on which I had looked with such pride when I started out, had come adrift and after one or two attempts to restore it I cursed and took the snow-shoe off. I carried it. useless and futile under my arm, not quite so convinced of my own resourcefulness, and went the rest of the way dotand-carry-one with one snow-shoe on and one off. After making perhaps three miles the discomfort of feeling that my trousers were hanging round my knees became unbearable and, stopping, I took off my coat and woollen jersey while Marr did a sailor's job behind, restoring my self-confidence. If I had until now been sweating hot the few minutes' halt soon made me shivering cold, for the temperature was below freezing. The air was very still and while Marr made good, working miracles felt but unseen behind my back, I noticed four whales blow at the margin of the sea-ice where open water began far away behind and below us. They were five miles away at least from where we stood, so far away that I could not see the black fins rise up behind the spouts. Yet long after the tiny plumes had faded I heard four sharp, distinct puffs come to me upon the stillness, so tranquil was the air and so emptied of all sound under the high painted vault of the sky. I remembered then that Herbert Ponting, Scott's photographer, had said that he could hear whales blowing five miles away in the still air of this very place. And I had always found this difficult to believe, like many of the stories Antarctic explorers tell, but as I stood there, having my braces repaired on the great Ross Barrier in seventy-eight degrees south, I gave posthumous acknowledgment to Ponting that this explorer's tale at least was true and, indeed, I could better it for I heard distantly the sighing of the sea under the barrier cliff six or seven miles away.

These running repairs put me far behind the others and the rest of the party pulling the sledge topped the crest of the long white slope ahead long before I gained it. There they seemed to remain for an immense time motionless, black dots against white. It was not until I had plodded on, dot-andcarry-one with one snow-shoe on and one under my arm, for what seemed to be hours, though actually it was only twenty minutes, that the black dots revealed themselves to be not human figures at all but the tiny masts and poles of Little America far off across a shallow dip in the barrier surface the presence of which I had not suspected a mile back. And there was the rest of the party pulling their sledge some way ahead certainly, but within shouting distance, descending the slope into this shallow trough. For the barrier plays strange tricks upon the sight as it does upon the ears. The outlines of its undulations, its shallow valleys and low hills without shadow, uncontrasted with the sky, appear only as a flat even whiteness without contours so that the geography of the world around you alters as you plod on.

When you think you have still far to go you suddenly find you have arrived and when you believe yourself almost at your goal a great depression opens up before you and you find you have still a mile or so to cover.

At Little America we slid down feet first on our behinds into the cell where Ellsworth and Kenyon had lived. was as they had left it. It was a dark and gloomy place filled with the ghosts of people long ago departed. It was as though someone had died there. We scrambled out again into the cold sunshine and made a perfectly disgusting hooch, which we boiled successfully over the "primus." The taste of it was indescribable, but it was hot and made a glow inside us. It was not possible to remain standing long without getting cold. The beauty of the day had gone and half the sky now glowered inkily, shading from a grey zenith to a black horizon seaward. A few large flakes of snow began to fall. We said good-bye to Little America and wondered who next would go there. Those poles are standing there still as I write, no doubt, and the sails of the wind pump are still revolving, slowly in a gentle breeze from the east or in a howling blizzard, click-clacking drearily in the silence. Below in the hut, whose almost vertical entrance has by this time been obliterated by the snows of two winters, there still rests a board bearing, among others, my distinguished signature. The remains of the parachute container are still there with the little packet of raisins packed by me during a burst of energy heading southwards through the Ross Sea.

We left that sad and lonely place, the most southerly traces—and what frail fast vanishing ones!—of the lord of all the earth. Douglas and Murdoch, before we left, went on their skis to the forlorn remains of the Blue Blade, the wrecked Fokker monoplane left by Byrd. One wing of it pointed dejectedly skyward through the snow about a quarter of a mile away. We turned about and headed for home. And then the string on the other snow-shoe broke and the last trace of my resourcefulness vanished. I took



Photo Alfred Saunders, FRTS

the second snow-shoe off and, plodding along on foot, began the journey that was the most exacting I can ever remember and, though it was only seven miles, the longest.

At every step I sank above my ankles and even sometimes half way up my calves, or rather at almost every step for now and again my foot, which I had to lift almost knee high from one step to the next, would come down with a jarring shock on a hard patch. For a few paces it would be heaven, like walking on a pavement—and after a mile of this a hard London pavement seemed the most heavenly thing on Then suddenly my foot would sink in again up to the calf often so violently that I was thrown forward on to my knees. Returning up the long gentle slope from Little America the others on their skis and snow-shoes left me far behind again, but I was not alone in my ignominious position, for the Australian mechanic, a tall, lean, grizzled man of about forty, was also making heavy going on a pair of snowshoes that kept slipping round at right angles to the direction in which he was heading -which is one of the habits of snowshoes. They are like horses. They know when they are carrying a novice and do as they please, choosing their own direction. We began the journey with laughter, my mechanic and I, at being left so far behind, but gradually the laughter was silenced in both of us and we saved our breath for the straining effort of getting ourselves forward. When the masts of the Wyatt Earp came in sight again above the shoulder that hid her hull we were gasping and stopped frequently, panting for breath. For me the whole journey became a frog-march with lumps of lead on my feet. My thighs and calves ached by now so much that I could scarcely stand and sometimes, when a sudden plunge downward into soft snow sent me sprawling on all fours, it was as much as I could do to pick myself up again. The world spun round me like a white wheel. It was snowing and the sky looked black above the bay. The tiny distant masts of the Wyatt Earp seemed to retreat as I struggled towards them.

Every step seemed to bring more and more rounded sky-lines into view before us. When Oates, who had made the outward journey on skis far behind us, overtook me on his return and, pausing in his easy flight, made bright conversation, I could make no answer. My whole energy was concentrated desperately on this ridiculously difficult business of getting along. But at last, resting every few paces, tottering, scarcely able to lift one foot after the other, the Australian and I reached the Wyatt Earp. We climbed over her rail under the indifferent gaze of her crew regarding us with faint amusement over their golden beards. A splendid smell of cooking came from her galley, something with carrots. In the saloon, so small that we sat with knees touching on opposite sides of the table between the benches that lined the bulkheads, I was brought slowly back to life with whisky. "Well," they said, laughing at my distress, "if you will try and do it on foot what can you expect?" I had no answer. I said something about snow-shoes. We returned to our own ship in the motor-boat, into the bottom of which I threw the snow-shoes, so useless and futile, with an equally useless and futile malediction.

On the Wyatt Earp the flags of three nations stood at half mast. As we bounded across the bay under the inky sky, from which large soft flakes now and again floated down, we saw a figure go aft in the Discovery II and lower the flag of the Falkland Islands at her stern.

- "Hullo! What's that for?" said someone.
- "He's dead, poor old chap."
- "Dead? Who?"
- "The King, you idiot. . . . The King of England."

We were silent. The snow flakes, falling gently everywhere, whirled into eddies astern of us and disappeared upon the iron-grey water of the Bay of Whales.

CHAPTER XVIII

LAURELS

Delighted as we were that success, as the newspapers were saying in two continents, had crowned our efforts we could not suppress a certain feeling of flatness, for the effort had been such a small one. We felt we had scarcely won our laurels. The Wapiti had never left its perch upon the afterdeck and, after having its wings fitted once in anxious expectation, it was immediately shorn of them again, remaining throughout the return voyage to Melbourne a mere symbol of our high intentions. It stood for reservoirs of courage untapped and strength untried. And all the little paper packets of raisins had to be undone again and the raisins themselves gradually absorbed into various kinds of shiny suct puddings, islanded in lakes of yellow custard. For a long time, too, after this, unfamiliar foods—pots of marmite and so on-made their appearance at meals. We were eating the sledging rations and they stuck a little in our throats. The spirit of adventure died back into its Aladdin's lamp, where it burns always—a small but steady flame.

When we left the Bay of Whales two days after meeting the Wyatt Earp, it was decided that Kenyon should remain behind to superintend the recovery of the Polar Star and should then return with the Wyatt Earp to Valparaiso. Ellsworth, as the crown of our endeavour, was to accompany us to Melbourne to convey his thanks personally to Australia for his relief. Deacon gave up his spacious cabin to our distinguished passenger, who was laid up for some days with his foot. On a hook, where he could see it, hung his leather ammunition belt, his guiding star.

Americans mingle a sophisticated charm with a certain ingenuousness in about equal proportions, but they have a vitality, a love of life, which is immensely refreshing to us who are, perhaps, a little jaded with history. Her vitality is America's contribution to the laborious business of making the world go round.

Ellsworth had this vitality and this ingenuousness. And there was also a strange driving restlessness. As soon as his foot would allow he was up and about again and spent the day making unending tours of the ship, from the cabins to the wardroom, from the wardroom to the hospital, from the hospital to the bridge and from the bridge to the cabins again, as though the ship were too small a space for him. He never sat still for long and if he settled himself with a newspaper or a book he would be up again in a minute or two to begin his wanderings anew. It was perhaps this restlessness that urged him forth across the Poles and sent him up in aeroplanes over waste and lonely places.

One felt that he would not be in civilization long before he was at it again. For the present, however, he was not unnaturally impatient to get back to civilization. On the way northwards to Melbourne we cleared the obstructions away from the fore and after deck and made a full line of oceanographical observations from the Barrier northwards. This meant a daily stop of three or four hours on "station." Ellsworth bore these delays with the impatience which his fellow-countrymen display nearer home when the Paris express is checked by signals. For him the pleasantest part of the days at sea was the half-hour when he drank sherry with us in the wardroom before dinner, turning upon us his charming youthful American smile. "Well, I'll certainly remember these evenings in the *Discovery* all right!" And the Antarctic with its frightening wastes, the anxiety of waiting, the hiss of the wind at Little America began to become like the memories of a dream. The sweets of victory lay ahead.

A foretaste of the sweets of victory met us when we passed Port Phillip Heads, the narrow entrance to Port Melbourne. A pleasure steamer, packed to the rails with holiday-makers, came up with us and kept us company. Her decks were

black with people and the dense mass of them fluttered with the waving of hundreds of handkerchiefs. They shouted, "Good on yer!" and kept up a shrill, continuous cheering while, for two hours, their panting paddle steamer ploughed along beside us. Our Australians cheered back to them and yelled greetings at the tops of their voices. These were their own people. They had come home.

We lay off Williamstown that night. In the morning a hot sun shone upon the oily waters of the harbour. shaved off my six weeks' beard and wore a suit again. My neck seemed to have swollen unaccountably so that my collar almost choked me. In the garments of civilization which I had not worn for two months I felt clothes-conscious, like a tailor's dummy. Imaginary rays issued from me as they do, apparently, from those who wear certain kinds of abdominal belts, do certain kinds of exercises or take certain kinds of pills. Dressed up like this, waiting in the wardroom for the situation to develop, I felt that all the abdominal belts, exercises and pills in the world would probably be insufficient to get me through the day. "My!" said Ellsworth, similarly clothes-conscious in a loose-fitting grey suit, "I certainly feel dressed up. Do you think there'll be speeches?" Aeroplanes in formation zoomed and dipped overhead. Two or three motor-launches chugged continually round the ship filled with reporters, cameras levelled. "Hi! Can you get Mr. Ellsworth to come to the rail? We want a photograph." Through glasses the hinterland of Williamstown could be seen rippling with a shifting mass of colour like a herbaceous border in mid-summer. Packed thousands awaited us. "Yes," I said. "I really am rather afraid there will be speeches."

How right I was! As we neared the jetty we could see that its long perspective had been railed off so that only a select few stood upon it, a little distant knot of people with their faces turned expectantly towards the ship as she edged along-side. They stood within a pen of hurdles which kept the

camera men at a respectful distance. For this was the reception committee. Beyond and behind them a sea of people lapped around the feet of the oil tanks. The shining roofs of hundreds of motor-cars were islanded in this sea like smooth boulders. Rippling waves of excitement ran through the crowd which kept up a continuous thin scream. The newspapers next day said that we came alongside the quay to the accompaniment of thunderous cheers but this was not true for, as I have always noticed, the cheers of a crowd are seldom thunderous but shrill and high pitched, a symphony of screaming female voices. For it is the women who do the cheering. The men in a crowd are usually silent. Six policemen kept guard over the railings that held the crowd at bay. Only the power of the human eye, so far as you could see, prevented them from being trampled underfoot. As we edged up to the jetty the dense crowd was suddenly augmented by the arrival of droves of school children each of whom carried a Union Jack. They formed up in the middle distance and added to the shrill tumult their thin, birds' voices so that the waterfront looked and sounded like the nesting place of myriads of gulls but for the fluttering of the children's flags and coloured dresses of the women.

The ship came to rest by design or accident opposite the reception committee. There was an ineffectual moment or two while a gangway was lowered. The crowd screamed and the six policemen, joining hands, made themselves into a cordon. Among the reception committee were Sir Douglas Mawson, tall, grey headed and thick-set, R. E. Priestley of the Scott Expedition, now Chancellor of the University of Melbourne, and someone who was about to make a speech. In one hand he held a manuscript while the other grasped a microphone. No word would be lost. A battery of cameras was turned in his direction, for he was about to read an address of welcome to the famous and intrepid explorer and, whether they liked it or not, his gallant rescuers. "Got your reply ready?" I said to the object of all this aldermanic

pomp. "Oh my!" he replied and stepped down the gangway smiling his brilliant smile. He shook hands with the committee and the crowd screamed themselves hoarse. In this moment of crisis the power of the human eye suddenly proved itself unavailing and the sea of people broke through the cordon of six policemen and swept them aside. Like a tidal wave it bore down upon the hurdles that formed the reception committee's second line of defence, swamping the cameramen and surrounding the little square in which the committee stood with a jostling mass of heads. Soon, one thought, they would break down the hurdles and stamp the reception committee flat. People were streaming on to the jetty from the waterfront. The six policemen had given it up.

- "Come on! We've got to go and shake hands now."
- "Oh, hell! No. Must I?"
- "Yes, of course. We've all got to."
- "All right then. You go first."
- "No, you go first. You're senior to me, damn you!"

We trooped down the gangway. I shot my cuffs, straightened my tie and, leaving a suitable distance behind the man in front, stepped on to the jetty for what was to have been my entrance—my moment. So it would have been had not Ellsworth chosen it for a charming if, from my point of view, untimely gesture. He broke away from the committee and, stepping through them to the crowd, shook hands over the hurdles at random among the people. They yelled with delight and reached out to him a forest of hands among which his own fluttered like birds. It was a charming gesture, spontaneous and American, and the people loved it, but the committee, caught aback by this unexpected behaviour of their distinguished guest, lost grip of the situation for a moment. The particular bit of it which they lost belonged to me—they let my moment slip. When I came down the gangway I found no hand to grasp mine. No one, I am bound reluctantly to admit, noticed me at all. I stood for a moment, blushing and unobserved but feeling the most conspicuous object for miles around, and then moved sheep-ishly to one side. To cover my embarrassment I engaged in earnest conversation a weedy young man in the crowd. "I'd 've given something," he said, "to have been on that ship, wouldn't you, cobber?"

But now the address of welcome began to compel attention. Aeroplanes droning overhead were soon the only sounds competing with it. While I listened flies buzzed about my ears and settled upon the nape of my neck. When it was over Ellsworth replied, saying he was certainly glad to be there. There was tumultuous applause. The last line of defence went down before the tide and the crowd surged all over the ship. I fought my way on board again. The wardroom was filled to suffocation. We were grasped by the hand and patted on the back and told what a jolly fine show it had all been. With becoming modesty and perfect truth we said that there was really nothing in it. Voices raised in greeting filled the hot, tobacco-laden air with a babel of indistinguishable sound. I began to become conscious that my face was fixing itself in a mask-like grin while my eyes wandered over the sea of heads, desperately measuring the distance to the door. I edged towards it repeating, "How do you do?" and "Thank you very much," and "Oh, there was really nothing in it."

I fled. In the laboratory Sir Douglas Mawson, sitting with his long legs outstretched before him, was talking about the Antarctic and about its problems. He was a tall, heavily-built man with grey hair and, when he stood up, a slight stoop. He had the look of a leader, at once wise and human. He spoke with learning and enthusiasm and with great breadth of knowledge. As we listened to him the tumult and the shouting outside seemed to fade away. The great questions which the Antarctic addresses eternally to mankind raised their majestic heads again and one knew that when the sea of oratory had receded they would remain

like mountain peaks, magnificently unsolved and unassailed. "When you leave here and go south again," said Mawson, "it would not surprise me if you were able to get right up to the coast of the Continent. Here"—and he laid his finger on a map—"in the Aurora we passed immense numbers of icebergs and came into open water right up to the coast. Good luck to you. One day," he added almost to himself, "I hope to see it all again."

In the wardroom Ellsworth was surrounded by reporters. He turned upon them his charming American smile. His blue eyes were alight with pleasure. "When you've been walking on stardust," he told them, "the sidewalks of a city seem kinda dull." They wrote it down. "The wild west wind," he said, "is the besom of God that sweeps the sea floor white. I've a hunch I'd like to cross one of your Australian deserts on a camel." And they wrote that down too for the edification of a million suburban homes.

It was long past noon. The crowds were beginning to thin out on the jetty, and many of those people turning homewards had caught a sense of high adventure from a brief handshake with a famous explorer which for a long time to come would light with a reflected glow their unexciting days. The school children trooped away with their flags tired but happy. They had seen him. And the reporters and the camera men hurried away to get their stories into the evening editions. Talking to Mawson we had forgotten them.

CHAPTER XIX

THE CROUCHING BEAST

THE whaling station motor-boat was a homely and familiar thing. We got to know it well. During my time at the Marine Biological Station on King Edward's Point it became one of the commonest objects of everyday life. Early in the morning it could be seen chugging across the harbour, towing the whale carcasses from the place where the incoming catcher had dropped them up to the edge of the flensing "plan," where they lay like huge balloons until hauled up and torn asunder. Later in the day, perhaps, we would see the motor-boat panting out into Cumberland Bay in all weathers, towing a lighter full of rubbish to be dumped. Or it would come snorting up to the government jetty on some errand to the Magistrate and lie there, coughing stertorously, until the Manager came down the pathway through the tussock grass and boarded the boat again. Then it coughed its way back to the whaling station leaving widening lines in its wake across the smooth water of the harbour or, if there were a wind, throwing up a troubled bow-wave.

She was certainly a fine sturdy craft, completely decked in, with a tapered bow and stern. There was a small cabin below decks forward covered by a square hatch and, amidships, there was a low raised housing over the engine compartment. A stout rope fender ran along her counter from stem to stern. She seemed a faithful patient hack, tirelessly carrying out her monotonous duties day after day, year after year, and becoming ever blacker and grimier in the process but never going wrong. She gave unending, reliable service. A gaunt saturnine giant drove her, his head only visible above the 'midships housing. One presumed that he had a lower half for the rest of him was hardly

ever seen and, for all we knew, he might have been a satyr with the shanks of a goat. A grimy fair-haired boy accompanied the motor-boat on all her errands, leapt ashore with the painter and made it fast, pushed her off with the boat hook, grinned and refused to answer any questions. "Kann ikke snakke Engelsk," he said. There was also a shaggy mongrel dog at one time that ran ceaselessly from bow to stern and back again up and down the deck yelping at the top of his shrill voice. But at Christmas 1936 the dog had been dead some years.

"That," we had often said enviously to one another, "is just the kind of boat we ought to have. A good sea boat, absolutely trustworthy." We said it still more at this Christmas-time for there lay ahead of us two months of survey work around the uncharted coasts of the South Shetlands. Around those ice-clad islands there stand an uncountable multitude of needle-pointed rocks upon which the sea boils in fury. At high tide many of these are hidden and betray their presence only by a turbulence of the sea above them. They stick up like the spires of a submerged city fringing every headland. There are channels where no ship can go and few anchorages where a ship can lie in safety without dragging her anchor in some sudden gale sweeping down from the glaciers. Much of the coast can only be approached with caution. All-obliterating fog will descend at any moment and drifting icebergs haunt uncertainly about the bays, pushed hither and thither by wind and tide. Others, temporarily aground, pivot and swing upon their bases, move out to sea with one tide and settle down uneasily with the next. No two days are alike around the South Shetlands whose shores are strewn with the driftwood of wrecks a hundred years old. Such a coast, we thought, could only be surveyed with a safe reliable motorboat, capable of making long journeys with ease and speed, journeys of a day or two at a time from a base camp on land, taking all the necessary gear and supplies. We had no such motor-boat. Ours could, often with difficulty and breath-taking hesitation, make the voyage from the ship to the jetty and back again when we lay at anchor in Port Stanley harbour. To use this capricious creature for long trips in unknown bays and channels, far from the ship or from a base camp, was not to be thought of. "That's the kind of boat we want," we said, and watched the whaling station motor-boat panting patiently across Grytviken harbour.

If you go about among the Norwegian whaling community long enough saying wistfully how much you wish you had such-and-such, or if only you had so-and-so, you find that sooner or later your wish is miraculously granted. Some kindly genie with steely blue eyes and a thick neck, wearing a windproof coat and rubber sea-boots, conjures up from somewhere, sooner or later, the very thing you want. At this Christmas-time we wished we had a motor-boat like the Manager's boat, a reliable and patient hack which would give us faithful service so that, from base camps on the South Shetlands, we could cruise around those rock-fringed coasts close inshore. We wished in the right place and at the right time, during the conjunction of the right planets perhaps, for suddenly and miraculously we had one. She was called the *Rapid*.

The Rapid had belonged to one of the whaling stations which had been closed and all but deserted for six years. For six years she had been lying hauled up on the beach inactive and lifeless. However, there was no doubt she was a fine boat and after a little kindly attention she would explode cheerfully into life once more. She fed on crude oil. George, the Third Engineer, explained to me how she worked.

George, the Third Engineer, came from Devon and had a soft Devon burr in his voice. He was something of a magician to me. He could make anything work that went by machinery. I, who am always baffled by the unreasoning obstinacy of wheels within wheels and who apparently arouse the worst feelings in any mechanism, looked upon his

peculiar gifts with astonishment not unmixed with suspicion. If your camera or typewriter, grossly overworked and undercared-for, suddenly and at last struck and refused to give any further service for nothing, you handed it over to George's nimble fingers which worked on it during the middle watch in the shop adjoining the engine-room. And in a day or two your camera or your typewriter came back rejoicing like a giant to run its course. During the many days of his life which George had spent at sea the nimble fingers hovered above other people's cameras or typewriters or watches, making to move that which was stationary before, causing obstinately motionless wheels to revolve again. But sometimes the fingers made things. Sometimes they created. After the relief of Ellsworth they made a model aeroplane to scale with slivers of wood and small lengths of fine wire. When completed it was a thing of beauty, a masterpiece. In Cape Town George went shopping. We walked from street to street, from half-crown store to sixpenny bazaar. Almost at the point of exhaustion I said at last:

- "George, what the hell are you looking for?"
- "You'll laugh, I suppose, if I tell you."
- "Of course not. Why?"
- "A little pot of yellow paint for my aeroplane."

And when the aeroplane was finished, magnificent with its yellow body and silver wings, George looked at it with justifiable pride. "It makes the time pass, you know," he said. Then my typewriter went wrong and he worked on it for five days. The aeroplane was forgotten.

George showed me, with a possessive air, for it was to be his special charge—how the Rapid worked, crouching over the grotesque and to me rather frightening-looking contraption that lived under the 'midships housing. It was an affair of huge green cylinders. Into their tops two blow lamps directed their blunt, blackened and purposeful noses like small pieces of artillery. As George began to explain my mind prepared itself not to understand.

"This is your compressed air," he said (why do engineers always use the second person singular when explaining their mysterious charges?), "in this bottle here." He pointed to a long green iron cylinder with a gauge beside the engine. I was to know it well before long, that bottle filled with my compressed air. "You heat up the bulbs with the blowlamps and when you've got the right amount of heat your compressed air blows the oil fuel into your cylinders through these little sprays called 'atomisers'." And so on. The longer the explanation of these intricacies went on the more astonished I became at the faith of man, not in God but in himself and his own inventions. For we were to trust ourselves, so it seemed, upon a perilous and reef-fringed coast to what was nothing more than a mass of interlocking and dependent contrivances. Each one might at any moment go wrong. If one went wrong they would all automatically go wrong also and the whole thing would become in that instant a mere meaningless jumble of metal shapes. "Good God!" I said, when the explanation was finished. before me a crouching beast, silent, inert, asleep but full of menace and the potentialities of disaster under its wooden housing amidships.

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The observation camp at Esther Harbour, King George Island, was deserted. It was only too obvious from its derelict appearance that no one had been there for some days and there was about it the forlorn desolation of an abandoned dwelling. The place which the missing party had chosen for their camp was not a very good one. For one thing there was no fresh water anywhere near it. The two tents had been pitched on a sand and shingle beach, littered with old drift-wood, not very far from the high-tide mark. A dingy line of rotting seaweed wound past them along the foreshore and the surf continually reached out inquisitive arms towards them. From the beach a snow slope climbed steeply up to the summit of a low cliff along the crest of which

a multitude of penguins kept up an incessant clamorous chatter day and night and filled the air with an ammoniacal stench. In the morning they came waddling down the worn, stained trackways on the snow slope or hopping down the screes from the teeming host above and bowing, hesitating, flapping their silly wings, they flopped into the surf and shot away out to sea like bullets from a gun. But many failed to get as far as that in one day's journey and instead stood about upon the snow slope or on the beach for days wrapt in mindless contemplation, forgetful of their errand which was the capture of food for the family on the cliff top above. For time means nothing to these people. And later in the day the traffic went the other way and they flapped on their bellies out of the sea on to the beach, trooped in companies wearily up the slope to their homes, stood about in contemplation upon the snow slope poised between heaven and earth, or played idle truant upon the beach. Meanwhile a persistent unending clamour of defiance and vain appeal arose from the throng upon the cliff top. But the snow slope, which was both the way up and the way down and the half-way house as well, where the time of day was passed in chattering, bowing, bickering or in restful slumber, was trampled by myriads of feet into a hard slippery incline and soiled beyond the semblance of snow by blandly indiscriminate excreting. Now, at high summer, it was melting so that the shingle beach thinly covered a river of noisome, greyish water, fresh certainly, but stinking. It flowed only two or three feet beneath the tents that the campers had pitched. Near the tents they had dug a round shallow basin in the shingle, perhaps for washing if such a thing could be imagined, and lined it with large stones. A grey scum floated upon the surface of the pool. The penguins had overcome their first astonishment and now no longer stood around the camp in silent white-breasted companies or advanced with curiosity when they dared to peck at the skirts of a tent or at the gear piled on the beach. They walked past with airy nonchalance as though the derelict and deserted gear had been there on the stones from eternity. As, of course, in their memory it had been.

Not only was there no fresh water at the place they had chosen for their camp, there was no shelter from any of the icy winds that swept the beach. One of the tents had been blown down. The other was torn and wet and the loose ends of it flapped in the wind. There was clothing folded up inside the one that still stood, wringing wet with dew, and a camera in a leather case buckled almost beyond recognition. A fireplace nearby, built with large stones, held damp and blackened ashes. It was long since a fire had burned there. Over everything was a powdering of old snow piled up into drifts and whirling in little eddies.

Yet it was obvious that the party had not intended to be away for long since their surveying instruments were there in their wooden boxes, the theodolite, the artificial horizon, the forty-eight-hour chronometer. The latter had stopped. Some of their six days' supply of food had been left behind also—biscuits, corned beef, some butter. Of their four sleeping bags two, soaked with dew, had been left folded in the tents. There were sodden notes and sketch books lying about, but the entries in them were a week old.

Everywhere sea elephants lay a leep. They had dragged their ponderous bodies, covered with ordure, over the skirts of the tents and over the gear scattered around them. They had trampled the sand into broad stained pathways. On the tent which had collapsed two or three lay in an obscene heap, one on top of another, with sleeping bags and clothing flattened into the sand beneath them. And of the Rapid there was no sign at all. Penguins darted and leapt through the anchorage where it was expected she would be lying when, after nine days' absence, the Discovery II returned from the south side of King George Island. A leopard seal lifted its head above the water, snorted and vanished. When Oates landed to inspect the camp, elephant seals

slumbering upon its tattered ruins, lifted their heads wearily and belched a slothful defiance, warning him off.

The air of desolation and tragedy that brooded over the remains of that camp brought crowding into the minds of all on board Discovery II visions of a hundred possible disasters that might well have overtaken the party. Six men, with the Rapid, had been left ashore to make a survey of Esther Harbour, a huge ice-encompassed gulf, while the ship went round to the south side of the island. They went ashore amid laughter. "What'll you leave me in your will, sir?"

"You can have any of the corned beef you find lying around!"

"Hi! What's all this? Pepper? Blimey! We've got enough bleedin' pepper to last over the winter!"

At the first derisive snorts which the Rapid, after persuasion, was coaxed into giving, everyone cheered, leaning over the ship's rail. Inside the engine cubby-hole of the Rapid the two blow lamps ("your blow lamps") roared like blast furnaces. Thick clouds of acrid smoke rolled up from the hatchway whence from time to time George's bird-like countenance rose up agape for fresh air, grimy and sweating. She was an evil thing, the Rapid. The crouching beast, roaring and awake, glared in its kennel with two glowing eyes. At last, after an apparently endless quantity of gear had been lowered piecemeal on to the deck or thrown down anyhow to be sorted out later, everything was ready. The Rapid was coughing rhythmically, spitting out through her exhaust pipe behind her clouds of pungent smoke.

"Let go there!" and she drew stertorously away from the ship. The little party aboard her waved as she moved off and diminished towards the distant shore and the flashing snow fields that crowned its cliffs.

- "Cheeroh! Remember me in your will!"
- "Gosh! What a lovely day!"

The ship was to survey the south side of the island and return in four or five days—seven at most—to pick up the

party landed at Esther Harbour. But you cannot always time your movements in the South Shetlands. On the seventh and eighth days it blew a gale from the west. The ship had to stand off the island into a blackened sea slashed with plumes of white and draped with veils of fog. It was nine days before she came back to Esther Harbour to find the camp derelict and the party missing.

Gloom descended upon the ship's company. Upon every man from the Captain to the foc'sle peggy there settled a sense of dread calamity. Six men had gone from their midst and none knew whether their familiar faces would be seen again or their laughter heard. All round the margins of Esther Harbour the upper snow fields that clothe the whole island in an eternal armour come down to the sea as glaciers. They present to it ice cliffs a hundred feet high pinnacled, crevassed and tortured, from which huge fragments fall incessantly with a report like the roar of artillery. You keep clear of these if you can. Had the Rapid taken a fit in the middle of the bay and been blown against one of these ice cliffs? Or had she similarly taken a fit and been blown utterly helpless out to sea in the last westerly gale? Or had she struck one of the reefs over which the surf boiled all round the coast and gone to pieces? Or had she sprung a leak and foundered? In any case there seemed to everyone in the ship to be little hope for the party of men aboard the Rapid. They might be able to take to the pram of course. But who would give a halfpenny for the chances of six men in a pram with only a single pair of oars, without much food, perhaps, or water, in such weather and off such a coast?

It was Saturday night. When the wine had gone round the wardroom table the Captain raised his glass.

[&]quot;Gentlemen," he said. "Our mess-mates."



Photo: Alfred Saund is, LRPS

CHAPTER XX

INTERNAL COMBUSTION

The second point west of the observation camp raised two thousand feet into the sky a triple crown of grey rock veined by a complicated anatomy of quartz. From its massive brow the screes and snow slopes swept downwards on either side to ice field and glacier face which presented pinnacled ice cliffs to the sea. These, booming continually with their own disintegration, curved away in crevassed terraces to other and more distant buttresses of rock two or three miles away on either hand. But the scaward skirts of the mountain descended to a steep shingle beach where the surf crashed, sucked back and crashed again, grinding the pebbles into speckled treasures like petrified birds' eggs, into spheres of rose and milk white, into a multitude of swiftly fading gems.

An evil spirit dwelt at the second point west of the observation camp but we could hardly be expected to know that when we dropped anchor there in the Rapid to get fresh water. Unless, indeed, we might have guessed it from the sinister and hostile look of the place. Old Jock Matheson and the boy took the water breaker ashore in the pram. I went with them from a sense of duty and not at all because I felt attracted towards that desolate and forbidding beach. But I had joined the party as a collector and accordingly I felt that I must fill the bill. I must collect. business to make notes and collect rock specimens from as many landings as possible and this, uninviting as it might appear, was a landing. And the Doctor came with us because, high up on a rocky slope above the snow, little grey black-capped terns fluttered like wind-borne feathers over their nesting place. He was an ornithologist and his blood was up. He must be after them. When in due course he came down from the mountain he was clutching in his Balaclava helmet four little brown freckled eggs and high above the snow four parents screeched over their loss. But Walker, the Chief Officer, who was in charge of the party, and George remained in the motor-boat bobbing at anchor upon the outer edge of the surf.

It was after we had returned to the *Rapid* and weighed anchor that she stammered, stuttered and finally expired with a sigh. Instead of the slightly uncertain yet confidence-giving rhythm of her engines there closed in upon us a horrible silence which the little noise of water lapping against her sides and the creak of her timbers increased.

Down in the forward cabin the Doctor, the boy and I waited. We heard the anchor chain rattle out again. There was no companion-way down into our dark and narrow cell. The hatchway was a square hole in the deck, covered by a lid. You took a sitting jump into the space below or, with less despatch but as little dignity, you straddled with your legs apart on the two benches that flanked the cabin and then gently lowered yourself down. Either way it was a button-bursting performance and dragged your coat away from your trousers. This was funny the first time, boring the second time and maddening at all times thereafter. When you stood upright in the cabin your head and shoulders projected from the hatchway like a jackin-a-box, and when the hatch was closed you could not stand upright at all. We sat now facing one another on the benches that flanked the cabin each with his feet braced against the bench opposite so that he should not be pitched forward for the Rapid, as she lay once more at anchor, was rocking with a motion which resembled those chairs at a fun fair which whirl you round for sixpence to the accompaniment of shrieks of hysteria. It was a kind of wallowing, whirling, jerking movement which made the head spin and the senses reel. The hatch was half open admitting a rectangle of grey daylight and a slanting flurry of snow.

We made desultory conversation across the darkness of the

tiny cubby-hole. The Doctor was describing his adventures on the mountain side in search of terns' eggs. "... Right in up to my elbows," he was saying, "and when I put my hands out the sides gave way. When I looked down I couldn't see anything at all. Of course, if I'd gone right down I'd never have got out. Not a chance!"

But I was not listening to this exciting story. I was straining my ears to catch the sounds coming through the bulkhead from the engine compartment, sounds indistinctly heard because of the noise of water lapping against the sides of the boat and the creaking of timbers. I heard George's voice, uncertain and perplexed in tone at first and later becoming angrier.

"Well. I don't know," I heard him say. "I'm sure I don't know. The old brute."

The polite sympathy which I had felt when first I heard the engine stop began to give way to a certain anxiety. I thought reminiscently of the early days of motoring when I was much younger before the war. The same polite sympathy when the engine stopped, the same desultory and rather embarrassed conversation in the back seats, flagging by degrees as the realization dawned that the engine had no intention of starting again despite the purple-faced efforts of all the male members of the party, that it was getting late and that it was "miles from anywhere." And we were certainly miles from anywhere here. Our base camp which we had left that morning lay seven miles away upon the headland which could be faintly seen on the horizon as a long line in the diminishing twilight. Our present anchorage, a few hundred yards from a rocky surf-girdled beach, was no place in which to spend a night. The wind and swell were increasing rapidly and with them the danger that we might drag our anchor. With no engine we were obviously quite helpless. As the tide rose a vast concourse of ice fragments great and small, forming a continuous sheet upon the water, were being borne outwards from the glacier upon our left and would soon surround us, an army with battering rams.

"Of course," continued the Doctor, "no one would have heard me if I'd shouted. Absolutely no one. It just shows how careful you have to be. Nearest shave I've ever had. You simply can't be too careful."

The rectangle of grey daylight above us suddenly enlarged and Walker's legs appeared followed by his body, clad in an old uniform coat much too small for it and, finally, by his head in a woollen helmet. He was sweating and he wiped his forehead, already streaked with oil, on his sleeve.

- "Well," he said. "It looks as though we're here for the night so we may as well make the best of it."
 - "Won't she start?" I asked unnecessarily.
- "I'm afraid not. George doesn't seem to know quite what's wrong. However, we'll have another go at it after we've had something hot."

Luckily in the little locker in the fore peak old Jock Matheson had stowed part of our six days' allowance of food—some mutton, some oatmeal, ship's biscuits and tea. Over a primus stove, secured upon the swaying pirouetting deck of the little cabin, he made a stew of mutton, biscuits and oatmeal, stirred together in a handsome black saucepan and charged with pepper to an explosive violence. We remembered that we had eaten nothing for over twelve hours. As Matheson bent over the saucepan, perched on the primusstove between his legs, a heartening and satisfying steam rose up and curled around his patriarchal beard, illumined by the ruddy glow of the stove. As you looked at him it seemed to matter less that you were wallowing helpless in a dangerous and exposed anchorage.

Jock Matheson, the bo'sun's mate, came from the west highlands of Scotland. In speech and action he was as slow as time itself and as certain. He spoke very little, indeed on board the ship he seemed to pass days in silence—a silence, one felt, filled with meditation as profound and contemplation as serene as that of a Buddha. He kept himself to

himself. In the evenings, during his watch below, he would be seen pacing silently up and down the port or starboard alleyway. When you passed him he flattened himself against the bulkhead and then continued his walk with steady measured tread. He was what is known as a "good steady hand" but to me he seemed to be a miracle of resource and sagacity, as difficult to shake as the rock of Gibraltar. He was the kind of sailor who is never far from his needle and his palm, from a marline-spike or a clasp-knife. When you saw him sitting on the forward well deck, surrounded by billowing canvas, making a sail, you felt that if the world came to an end at that moment his short, hard, capable fingers would not cease and that until eight bells had struck and the watch was over the world catastrophe must wait. Since he had been old enough to pull an oar, as he said himself, he had been used to small boats. He had worked with and owned small fishing vessels, herring drifters, off the coast of Scotland all his life. What was the second point west of the observation camp to him? He had served with the Hudson Bay Company in the Arctic and with Mawson in the Antarctic before joining the Discovery II six years ago. Perhaps it was natural that this wise and experienced old sailor should have automatically already taken moral and spiritual charge of our party. There was no one of us, except perhaps Walker, who was not a child compared with him. I, at any rate, felt that I should be horribly unequal to any of the emergencies which, with a sinking feeling, I began to foresee in our present situation.

I foresaw them less, however, after Matheson's hash. George had come down into the cabin feet first, letting in a further whirl of snow. He looked worried and distraught. He wiped the back of his hand across his forehead and said, "Aye! The old brute!" several times. But after a plateful of hash the old brute seemed to lose some of her evil personality and appeared after all only as a collection of interlocked metal parts. She was made to work and work she should.

"If anyone can make her go, she shall go," he said and, putting down his empty plate, George threw his shoulders back and rubbed his hands together, his confidence renewed. We supplied a round of applause and told ourselves we should be away from here in an hour or two.

But in two, three, four hours we were still there, bucketing. dancing, whirling sickeningly up and down on a steadily increasing swell. We began to feel very sea-sick. At first we made unnaturally bright fatiguing conversation across the darkness of the tiny cabin, defiantly demonstrating to each other that we were not feeling that way at all. But presently our chatter began to flag and became sporadic. Long silences fell upon us filled only with the creak of timbers and the ceaseless flip-flop of water against the sides of the boat. Soon we were quite speechless, sunk in a coma of nausea. We slipped down upon the benches until we were three shapeless heaps dimly seen in the gloom. When the boat lurched and threw us into a different position we remained stuck in the new posture, leaning awkwardly sideways or slipped forwards on the benches like dummies. Could we have seen them, our faces, we would have discovered, were green as the moss where the Doctor found his terns' eggs.

I must have slept. When I (presumably) awoke it was pitch dark in the cabin. The shapes of the Doctor and the boy were just visible crumpled up on their benches at the side and at the end of the cabin. Overhead a dim rectangle of twilight still showed. The boat was lurching wildly and a horrifying cannonade was crashing against her sides. Her timbers creaked under the assault. Pushing aside the hatch with my head I levered myself up on to the deck with my arms. Under the heavy lowering sky, half night and half day, a high, swift swell was running. Line upon line of foamless oily barriers bore down at us from the open sea. They lifted us and swept on rejoicing to crash in white upon the beach. Up their slopes, over their crests and down into

their troughs again rode a clonking clattering army of icefragments of every size and shape. The tide had brought them to us from the glacier face. Those immediately around us battered and crashed against the sides of the Rapid. With glassy spears and wave-worn prongs as hard as flint they drove at her timbers. Dazedly the boy came out on to the deck and we took an oar each from the pram. We tried to push away some of the besieging army but it was no use for we could scarcely keep our balance on the lurching deck. We clutched at the rail on the housing to avoid being thrown overboard. Sometimes we were flung on top of each other in a heap or gripped each other wildly for safety. But there was no safety at all in this, for more than once we were both almost over the side locked in a sudden unpremeditated embrace.

In an atmosphere thick and suffocating with bitter fumes George, Walker and Matheson were working on the engine like maniacs—their faces smeared with oil and soot, streaming with sweat. They worked now with a kind of frantic but directionless energy. They had been at it for over twelve hours and were all but senseless from fatigue, half doped by the foul suffocating fumes which the crouching beast exhaled. The lurching of the boat threw them continually against each other, against the sides of the compartment or against the hot metal of the engine itself. From time to time one of them came up through the hatchway gasping for fresh air and hung there with his elbows on the coaming for a few minutes, drinking in the cold night wind before disappearing into the thick stench and heat of the engine compartment. But to all their ministrations, though they pumped compressed air (my compressed air!) into it with desperate strength and tireless patience, the crouching beast gave only the same reply of negative flatulence.

I was overcome with shame. I had been sleeping while they sweated.

"Hi!" I shouted into the engine-room hatchway. "Can I give a hand?" But the dim figures moving in the smoke which streamed upwards out of the hatchway made no reply. They did not hear me. They bent and straightened themselves over the crouching beast with its two glowing eyes, roaring at blast furnace heat or flaring into flame and smoke. They lurched sideways and put out hands blindly for support. They turned towards one another with vague gestures of despair. When it was morning and the grey pall of cloud, overspreading the sky, lightened from the east, they were still working, dazed and purposeless now with fatigue, hunger and foul air.

But the army with battering rams had passed on beyond us, out to sea and the ocean heaved gently, carrying on its smooth swell a company of giant icebergs. They seemed to watch us.

CHAPTER XXI

ENCOUNTER

"Well, thank Heaven for that!" we said and turned to each other with thankfulness and relief. Each saw his own joy mirrored in the other's face. For the Rapid had woken suddenly into life. It was the morning of the third day. Throughout two days and three nights we had sweated, choked and toiled without ceasing in the stifling atmosphere of the engine compartment refusing to be defeated. We forgot to feed and forgot to sleep. Each in turn pumped compressed air into the long, green cylinder until his temples felt like bursting. We did this with a foot pump hour after hour in a nightmare frog-march. Between turns we kept watch on deck, chilled and wet, against the ever-changing, ever new dangers that arose continually in that anchorage. They were sudden dangers of wind and sea and ice devised seemingly for our especial benefit with merciless ingenuity by the evil spirit that dwelt there. We shivered on the benches in the little cabin below, our feet braced against the lurching of the boat, in the pitch dark and in silence. We were smeared with sweat, oil and soot. We had not washed for four days nor changed our clothes. But now at last the victory was ours. We were a little hysterical. the surf-lined beach receded and the mountain side that towered aloft with its head in the clouds fell away, taking on a less dreadfully familiar shape, we broke forth into a spate of shrill talk. We cheered. We laughed. We cackled.

"I know what we'll do when we get back to the camp," we said, our voices shrill with excitement. "We'll have a damned good wash and then we'll get into our sleeping-bags and make up for some of the sleep we've lost. I'resh meat, too! We'll kill a seal and make a damned fine stew!"

Old Jock Matheson, coiling down the anchor chain, was

moved to unwonted heights of eloquence. "Aye, maybe she'll go alright now," he said. "Well, I'm just not too sorry to be away from there. I'm thinking it's not a very healthy place to stay in."

The boy grinned. His face, smeared with grime, was cheerful for the first time for days. "One thing this'll cure me of and that's motor-boats," he said.

The *Rapid* bounded ahead, dancing over the swell. Walker was silent, his hand on the tiller wheel and his head and shoulders above the coaming of the engine-room hatchway.

An iceberg like a white castle drew towards us. It grew larger until it filled the seaward view. A blue translucence tinted the water swirling about its feet. Foam rushed up its polished surfaces and fell hissing back upon itself, but in the middle was a narrow waist which almost cut the white mass of it into two parts. Here, from the farther side, torrents of spray poured over to shoot with purposeless violence into the water upon the near side of it. From the sheer walls the swell came back to us as a counter-swell, making the *Rapid* smack the water more violently with her bows. She stammered, hesitated and recovered strength.

In the engine cubby-hole George bent his oil-smeared face with anxious intensity over the crouching beast, fighting to maintain the life he had coaxed back into it, now gently touching the blow lamps to keep them glowing in a hot fury of blue and crimson and now slightly moving the throttle valve. "She's going all right so far. It's a bit early to say but she seems all right yet."

She stammered again. The huge white phalanx was less than fifty yards away from us on our port beam. "Keep her going, George," said Walker. "Whatever you do keep her going just here!" The foam creamed hissing around it. The narrow waist in the middle was carved into runnels, down which water trickled long after each main cataract had passed. A little grey tern with a black cap alighted with moth-like delicacy upon the topmost pinnacle.

The Rapid faltered and, with a sigh of utter exhaustion, failed. Everywhere once more was the multitudinous sound of water, the labial sound of it lapping against the sides of the boat, lapping against the pram astern, hissing against the white walls of ice towards which we now drifted quite helpless.

I discovered that the seat of the emotions is neither the brain nor the heart, but the stomach. I had in that moment the same heavy sensation in the pit of the stomach as that produced by rage (a sensation becoming rarer as I grow older, thank Heaven), or by disappointment (now becoming a little dulled through usage) or by the dentist's waiting-room. The sounds produced by massed strings and certain words strung together in certain combinations call up the same unaccountable malaise.

Icebergs such as this are often undercut and it is in this that their danger lies. A boat drifting against the undercut side may, with the fall of the swell, catch her side beneath the overhang and, at the succeeding rise, be overturned or swamped or even dashed to pieces. Further, they are often in a state of decay, carrying pinnacles and monstrous fragments poised for a fall, ready at a slight shock to crash down, hundreds of tons in weight, with a roar like artillery and a rushing cataclysm of foam. But the white citadel on to which we were drifting had none of these, neither caverns beneath nor loose masonry above. Yet I felt slightly sick and gaped helplessly at the white walls that drew slowly closer to us.

"Get a sounding," said Walker. The boy ran the sounding line out.

"No bottom, sir."

Beyond, down wind, in the direction of our drift there waited for us the glacier face with all its poised fragments and toppling pinnacles that fell away every now and then with a dull and distant boom. The sluggish sound of each explosion came to us across the water long after the catastrophe that caused it had passed. We drew so close to the

iceberg now that we could see the minutest details of its roughly chiselled surface. Each tiny roughness carried a powdering of yesterday's snow.

"Get your sea anchor out!"

A sea anchor is a conical canvas bag, a drogue, weighted so that it will sink down deep enough to act like an under-water kite. Thus, trailing its drogue several fathoms beneath it, the boat would drift with the current or with the tide and not with the wind. But our sea anchor would not sink. It floated ineffectually upon the surface. The iceberg was almost above us.

"Get out in the pram, Matheson. Try and pull her clear. See what you can do. The rest of you stand by with boat hooks to fend her off."

Matheson got out into the pram. He pulled with long, steady strokes, sitting a little sideways on the thwart, one leg straight and one bent under him. His chin was thrown back as he leaned upon his oars so that his beard stuck outwards and upwards in a reassuring and indomitable point. We stood ready on the deck with boat hooks poised for action as the high white cliffs drew within our reach. Very slowly, with the strong pull of Matheson's oars, we moved clear. The iceberg began to draw astern of us. Other aspects of its rude architecture became visible by almost imperceptible degrees. A hidden slope revealed itself, a shoulder appeared. A whirling blue eddy played in and out of a new hollow. And presently the way lay open between us and the glacier face down wind. We drifted now steadily on towards it watching, helplessly and in silence, its fantastic details enlarge. But in twenty fathoms, a mile from the same hated beach and its white lines of foam, we found bottom and the anchor held. We were clear of the berg and we drifted no longer. I came out of my gaping trance, a little ashamed of having been in it, but we looked at each other with blank faces and for a time were quite silent, speechless with disappointment and dismay.

But presently in the cabin below speech returned to us.

"Well, it beats me. Aye, it beats me. . . . I'm sorry. There it is. I'm beat." George held his head down between his blackened hands. Sweat dripped from his nose on to the deck. Three bright glittering beads fell one after the other. I counted them and watched them where they fell. They dulled slowly into the wood. And then another fell. His eyes were red and his grimed face was drawn with the last extremity of fatigue.

"We're comfortable enough here," said Walker, "if the weather holds. There's no need to worry so long as it keeps like this. We're not dragging. We'll just have to stick it out and wait till the ship comes back. We've plenty of food, haven't we?"

"Och aye!" said Matheson. "We can last a good while yet. We've all that oatmeal and a goodish bit of meat and plenty biscuits. Maybe we'll be all right if the weather holds. I'd rather be elsewhere but maybe we'll be all right. We'll have to go easy on the fresh water. There's not so very much left in the breaker."

"Just have a look in the locker and see if those eggs of mine are safe," said the Doctor.

"We'll be eating those before long I expect," I said.

"Perhaps the ship will be here to-morrow," Walker said.

"That is, if it keeps fine. She must be on her way round here by now. I wouldn't be a bit surprised if she was on her way. The Old Man will do the east coast on the way round I expect. I wouldn't be a bit su prised to see her to-morrow. They'll send a whaler for us as soon as they see us, I expect."

"I couldn't half go some of the cook's duff now," said the boy sorrowfully.

"What about those bergs?" I asked with apprehension.

"They'll probably go clear of us."

"What if they don't?"

"We can see them coming, you know, and kedge out of their way. We're not quite so helpless as all that."

- "What about that glacier face?" I said presently.
- "I don't think we'll drift on to that."
- "Well, the wind's that way."
- "We've a good holding ground. We shan't drag as long as the weather keeps like this."
- "Supposing it doesn't. Supposing it blows a gale from the west?"
 - "We must just hope it won't that's all."
 - " If it blows the other way we go on to those bergs."
 - "Oh, shut up!"

That night it was bitterly cold. An icy chill struck up from the floor boards and through the bulkheads of the cabin. The hatch was tightly closed. It was pitch dark. There was a kind of freezing fug, a chilled airlessness.

- "I say. . . . Are you awake?"
- "Yes."
- "Have you ever shivered like this before?"
- "No. Never felt anything like it. I can't stop."
- "I've an idea. Suppose we lie end for end on the bench and keep each other warm."

I placed myself with my head against the forward bulkhead of the cabin using my sea-boots as a pillow. I pushed my stockinged feet under the Doctor's body on either side of him. He, with his head against the after bulkhead, lay with his feet in their thick socks under my armpits beneath my heavy coat on either side of me. The boy, in an awkward and grotesque curve, lay half on the bench on the other side of the cabin and half thwartships on the end bench. He placed his feet beneath my shoulders. Lying thus in a string, like a tableau vivant of a Bacchanalian orgy, it was fantastically uncomfortable, odorous but warm. Yet still, though no longer so cold, we shivered as with an ague and our teeth chattered, rattling a tattoo in our heads. Matheson and Walker kept watch on deck all night, one relieving the other every two hours. Sometimes one of the rest of us kept watch with them to make more room on the benches.

We all needed sleep. When we had slept we would attack the engine again. But now we must sleep. At each change of watches the human pattern had to be arranged over again. Grunts and muttered protests accompanied this difficult process for we were of such varying sizes and shapes that the pattern we made seldom failed, after a few minutes, to produce a deadening cramp of the limbs. From time to time one of the tangled heap of bodies would sit up with a groan to straighten a cramped leg or revive an arm gone dead. Walker, during his brief spells below, fitted himself into the jigsaw puzzle we had made of ourselves and lay still but awake, listening to the sounds of the weather and to the movements of the boat tugging at her anchor chain. I could hear him clearing his throat in the darkness and knew that he was not sleeping. Somewhere George fitted himself in also and slept a sleep of exhaustion without movement except when the boat lurched and rolled him sideways a little. But old Jock Matheson, when he came below, lay down on the floor boards. "I'll sleep on the deck. I'll be plenty warm enough. Och aye! I'll be fine," and he disappeared beneath a mound of damp, dirty duffel coats and lay motionless, a dark heap below us until his turn came to go on deck.

Thus we slept fitfully. As the night grew colder yet towards morning we slid down closer to each other and clung together for warmth. Each could feel through his thick clothes the trembling of the other's body. I dreamt that I was at home and awakening was a cold horror of realization.

As the boat rolled a gurgling swish of water washed from side to side under the floor boards. Matheson's body lay like a dark mountain above a subterranean river. Every

[&]quot;I say. . . . Are you awake?"

[&]quot; Yes."

[&]quot;There seems to be a hell of a lot of water in the bilges. Listen!"

now and then from this black oily Styx a tongue lapped up alongside our heads between the bulkhead and the bench on which we lay. It left a dirtier mark upon the dirty paint.

"Better tell Walker. She's leaking."

I heaved myself out from among the bodies and opened the hatch. Walker, in the engine-room hatchway with his head and shoulders above the coaming, was watching the grey coming of the day from under eyelids drooping from lack of sleep.

- "I say. I think she's taking in water."
- "What's that?"
- "There's a hell of a lot of water in the bilges. I think she's leaking pretty badly."
- "Oh, well," said Walker. "Oh, well. We must keep the pumps going, that's all. She always did leak a bit, you know." And he turned his eyes once more towards the seaward sky which, full of menace, darkened up to the zenith.

After that we worked the bilge pumps hour after hour, for the battering the *Rapid* had received from the ice two nights ago had opened her timbers. She took water steadily.

- "Couldn't we rig a sail with the sleeping-bag covers? We could get on to that point with this wind."
- "Couldn't we leave the boat and pull back to the camp in the pram? Five or six hours on a calm day."
- "Couldn't we walk back if the worst came to the worst? About two days, going carefully and roped together."
- "Anything rather than sit here waiting for what's coming to us."
- "I thought the ship would be here to-day but she isn't—so there it is. She'll be here to-morrow I expect. I wouldn't be a bit surprised to see her to-morrow. He said five or six days—seven at the most."
- "Is that berg adrift? It seems to be nearer than it was an hour ago."

- "It's clouding up. I think it's going to blow."
- "I've a feeling I'll get her going this time."
- "What does the gauge read now?... I said, what does the gauge read now?... Oh Lord! Is that all?... Right. Are you ready? Go!... Up, down.... Up, down.... Take your foot right up each time. Up! Up!... Keep it going!... Up.... Down.... Up.... Down.... That's enough for you.... Next!"
 - "I'm so hungry. What about a biscuit all round?"
- "Is there a dry duffel coat anywhere? Mine's soaking wet."
 - "Are these your socks in the bilge?"
- "Get into the after peak and use a bucket with some seawater in it. For God's sake don't upset it and empty it afterwards. . . . Yes. You'll find some in the fore peak locker. Don't take too much."
 - "Well. That's one pleasure left in life anyway."
 - "I can't stop shivering."
 - " Is that your teeth chattering?"
- "The oars for a mast.... Take it in turns to pull.... Roped together.... I don't like the look of it.... So long as the weather holds."
- "Well, well. I did think she'd go that time. I honestly did."

CHAPTER XXII

THE OLD MAN OF THE SEA

"Do you know, sir?" said the boy confidentially, "I've a kind of feeling. Sort of presentiment, you might say. That is, we'll be aboard the ship by to-morrow evening. We'll wake up in the morning and see 'er over there at the anchorage. There won't half be some glasses trained on our camp. Then they'll spot us in the afternoon and send a whaler. Let's see, the boat's crew'll be Mr. Marr and George Ayres and the Bo'sun and Osgood and who else——.?"

I said, "That's a fine comforting feeling to have, son. I hope you're right." But the feeling was wrong as such feelings often are. Instead it blew a full gale from the west.

It was the fourth day. We had fought to start the engine again for another day and night. On the fourth day it burst once more into an uncertain, hesitating life, but it had no ring of truth about it and we dared not trust it. We dared not attempt the journey back to the camp and instead we moved inshore again to an anchorage less exposed to drifting bergs and fragments from the glaciers. Or so we thought. I was thankful to be in shallow water once more near the beach. The grim bank of shingle with its roaring white lines of surf seemed friendly after the heaving open sea where, a tiny helpless speck, we had wallowed for the last two days. But now it blew a full gale upon us from the west and the world was blotted out, becoming a hideous grey whirl of flying snow through which the near icebergs gleamed whitely. The sea crashed with unspeakable fury upon the beach and boiled like a cauldron around the reefs that fringed it. It lifted the Rapid on high and flung her sideways down again. The six men in her, hungry and worn out, clutched and staggered and lurched on top of one another or lay in clinging heaps, helpless and speechless, upon the benches in the forward cabin. Our senses reeled with the frightful insane motion of the boat. We wondered dully what would happen to us and whether our tiny craft could possibly ride it out. The grey tormented sea was covered with lumps of ice of every size which hurled themselves at her sides so that her timbers creaked under the strain, or they rumbled along her hull with the noise of chariot wheels. Hour by hour we pumped the bilges for the oily water collected there without ceasing, slopping beneath the floor boards and darting up black tongues beside us as we lay on the benches. But later it gained on us and we baled as well in the after peak. We scooped up the foul water with the tin baler and poured it into a bucket. When the bucket was full we emptied it over the side and went to work again. Melting snow leaked and dripped from the deck on to the bodies prostrate on the cabin benches. It lay around them in pools and splashed from the benches on to the floor boards.

Suddenly the hatch over the forward cabin was flung aside. From the rectangle of light that abruptly opened up above us a whirl of snow and spray rushed in. The four bodies clinging together on the benches stirred and sat up. Matheson was in the hatchway framed against the grey daylight. He was excited and perturbed and the spectacle of him thus was so unwonted that we did not at first realize the significance of what he said.

He said, "We'll have to beach her. It's our only chance. She won't ride it out and the ship'll not be coming in this."

And he dropped into the cabin and began to collect together our gear. The thunder of ice crashing along the sides of the boat seemed at first the only sounds that filled the tiny cabin. Then presently, through the cannonade, I heard the engine running. I heaved myself up on deck, but half-way up I halted and remained seated on the coaming with my legs dangling in the darkness below. I forgot that spray and snow were whirling down on to the others beneath

me on the benches, for I was aghast at what I saw. I said, "Good God! Look at that!"

The grey sea seemed to stand above us like a wall balancing upon its top great blocks of glass, some white and some green. And when it all seemed about to crash down upon us to our utter annihilation suddenly, with a convulsive rush, all the tumult of the sea was beneath us. There below were the beach, the rocks, the whirling dervish-dancing lumps of ice and all the spouting fury of the sea. And then in the next instant there was a giddy plunge downwards and all was hidden again behind moving, hissing walls of grey.

Walker was in the engine-room hatchway, looking out tight-lipped at this frightful shattering uproar.

- " I'm going to beach her," he said.
- "Beach her? What does that mean?"
- "It means I'm going to open the throttle and run her full tilt on to the beach. It's our only hope. She won't ride this out much longer. She'll snap her anchor chain or drag and then we'll go where the sea puts us. On to those rocks probably. It's our only hope."

Yet this dreadful crisis, like most anticipated crises, never arose. The sea abated sufficiently for us to leave our inshore anchorage and stand once more out to sea where we were out of danger from the pounding surf and the rocks like teeth that waited for us. It was almost as though some voice said "Peace, be still." But since this is the twentieth century perhaps it was only that the tide turned. Is that an ungrateful thing to say? If the tide had not turned then but half an hour later this chapter would end here.

Once more we wallowed in the open sea, a minute cavorting particle, above twenty fathoms in a mountainous ocean swell. The shore was a dark loom now faintly marked by a white line through the mist. The distant roar of the surf on shingle came to us from it.

And here, above twenty fathoms, again and for the last time life went out of the crouching beast.

On the fifth day we had given it up. The boy's presentiment had been all wrong. Alas for presentiments! They usually are. On that morning the world was still a thick blanket of grey and we could not see the ship's anchorage. But we knew that no ship was there. The sea was still enormous and the giant swells, heaving themselves out of the fog and racing on towards the dim shore, flung us about like a cork. We had given it up. None of us had slept for thirty-six hours. Several had not slept for twice that time. We sat weak, silent, hopeless, our heads down, our hands idle between our knees. In the last twenty-four hours we had eaten one biscuit each, spread with meat extract, for the supplies of food in the fore peak locker were running out. We had drunk one cup of tea, pitch black, without milk. Our faces and hands were caked with dirt ingrained now into the skin like a pigment so that we looked like Arabs. Yet all desire to wash, to eat or even to sleep had gone with the wish to talk. We could not be bothered. We still pumped the bilges hour after hour in watches and still baled into the bucket in the after peak. The water gained on us steadily. But for the rest we just sat hopeless and defeated. The crouching beast had won.

I and one of the others (I cannot remember which) sat in the engine compartment gripping the benches and the bulkheads for support. We kept one of the blow-lamps of the engine still going to make a warmth of sorts. But for that single glowing eye the crouching beast was now cold and silent. From the deck above water dripped down steadily on to us. We were soaked to the skin and made feeble attempts to dry socks, woollen caps and gloves upon the rapidly cooling metal of the engine. They constantly fell into the bilge and we swore a little as we groped for them in the oily stew beneath the deck. By turns we sat on the bench beneath the compartment hatchway in an oily puddle, mechanically working backwards and forwards the handle of the bilge pump. It was an occupation like knitting, requir-

ing no thought and soothing to the nerves. Snow blew thinly into the hatchway and segments of grey sea flashed repeatedly into view there, slantwise, to vanish instantly.

A metal plate on the engine said, "It is important to... the lubricating pumps." The intervening words were obliterated by a smear of oil, but as I sat there listlessly working the wooden handle of the bilge pump back and forth, back and forth, my eyes fastened on this legend. What was it that it was so important to do to the lubricating pumps? Perhaps George hadn't done it. Perhaps that was why the thing wouldn't go. But I could not decipher it. I should never know what it was that one should do to the lubricating pumps that was so necessary or perhaps even vital. It didn't matter anyway. Who cared? "It is important to... the lubricating pumps."

Walker appeared in the hatchway obscuring the daylight but blocking out the whirling snow and that flashing and occulting segment of sea.

"I say, you chaps. I've been thinking about this. I think we ought to get out of it."

"Get out of it?"

"Yes. Get right out of it. Get on to the beach. We can make some sort of shelter with the pram and have a sleep on dry land—fairly dry land, anyway. We can kill seals and penguins for food. We can make a fire of sorts, when this blasted snow stops, and dry our clothes. If we stay here—well! She won't stand much more of this sea. She'll snap her anchor chain or drag and go on the beach, or on to that glacier. She's leaking pretty badly now and we're not keeping pace with it. We've run out of fresh water and there's precious little food left. We're all soaking wet and worn out. That's the position, boys. I think we ought to clear out. We'll have to leave her sooner or later, anyhow. So what about it?"

I looked out from the hatchway. The seas charged at us out of the fog and swept on. They drew behind them

mottled trains of foam which those pursuing hard on their heels caught up. On the beach a mile away, half obscured by mist and flying spume, they exploded into a seething holocaust. All along the dim shore line clattering blocks of ice swung and crashed against one another, grinding upon the shingle with a roar.

"But we can't get ashore in this surf."

"No. We'll wait till it moderates a bit. There's a place over there between those reefs where a landing might be possible I think. We'll go in two parties and don't take more gear than is absolutely necessary."

"All right. As you say."

We went aft. In the tiny dark cabin the others were lying or sitting crumpled up in attitudes of exhaustion and misery. There was water everywhere, seeping through the bulkheads, dripping through the deck. It dripped on to the benches and on to the tired bodies that lay on them. It trickled ceaselessly from the benches on to the floor boards. The place reeked with the smell of breath and wet clothes and unhappy humanity. In the midst of it all George lay in a heavy sleep, half on a side bench and half on the thwartships one. Water splashed on to his face.

I said, "We're going ashore. We've got to get our gear ready."

- " What?"
- "We're going ashore. Get your gear ready."
- "Going ashore?"
- "Yes, getting to hell out of it. We've got to get our gear ready." And then I sat down on the wet bench and did nothing much. I think Matheson did it.

"Not too much the first trip," he said, "in case we don't make the beach. Two sleeping-bags. Don't get them wet. Keep the waterproof covers on them. Primus stove. Tin of paraffin. Yes, heave them up on deck. Biscuits, yes. Put them all in here, crumbs and all." He picked up my sodden ruck-sack and threw out of it my rock specimens,

collected and carefully labelled five days ago—glittering teeth of rose and amber quartz, chunks of sandstone cool and rough to the touch. I picked them up tentatively, loath to leave these colourful treasures behind. "No, no," commanded old Matheson. "We've no room for the like of that," and he filled the ruck-sack, which still contained a pair of climbing boots and a great quantity of damp, loose earth, with crumbled fragments of ship's biscuits. The crumbs ran into the boots and mingled with the earth, but later on we ate them as though they were a rare delicacy. George still lay sleeping as we dragged things out from under him.

It moderated slightly a little later in the day and the fog lifted, but still the ice-laden surf boiled round the rocks, crashing in white lines upon the beach.

"We might have a try at it now," said Matheson.

I sat down on the 'midships housing and looked at what we were about to attempt. I thought, "This is ridiculous. These things don't happen to me. It's something I've read about." Indeed, throughout the whole of this experience, during the past five days and during those also which were yet to come, I had an obscure feeling that this adventure really belonged to someone else. The fact that it was indeed myself and none other who was going through this improbable performance in a tempest upon a desolate Antarctic shore seemed somehow incredible and slightly ludicrous. The familiar sensation in the stomach was there again and I wondered confusedly whether, if the pram were smashed to pieces or overturned as I expected it would be, one would have any chance in that surf wearing a heavy duffel coat and sea-boots. Or would one immediately get cramp in that icy water and sink like a stone? Perhaps I should carry out some gallant but fantastic rescue in that seething cauldron. Perhaps not, however. What did one look like when drowned? Bright blue with bulging eyes, I had once been told.

[&]quot;Come on. Chuck in the gear!" said Walker.

Matheson stowed as much of the gear as he thought it wise to take on the first journey in the stern of the pram so as to keep her bows out of the water. He was to take the Doctor and myself first and, if successful, to return for Walker, George and the boy. He sat ready at the oars, a steady old seaman about to do something which only he knew how to do. Sure of himself, ready for a battle knowing that the victory would be his. It was a difficult business to get into the pram for the enormous swell continually drove the two boats together and flung them apart again, one up on the swell and the other down. I leapt into the boat and fell on all fours, sprawling over the thwarts. The Doctor, trying to step in, missed his moment and straddled for an instant perilously between the two boats. Then he flung himself sideways down into the pram.

"Right! Cheeroh, and good luck!" said Walker.

Old Jock Matheson began to pull for the shore with swift and powerful strokes. From a little distance away we saw the Rapid rise aloft and sink from our sight in the troughs of the great seas, the three diminished figures motionless on her deck watching us. Sitting on the stern thwart of the pram I looked back and upward at the huge toppling barriers of grey which pursued us, crested with white. We rose up on them with a soaring motion as though in flight and then slid giddily down again into valleys of flecked water roofed by the sullen sky. Little black petrels skimmed upon the surface like insects.

Matheson had been used to small boats since he could pull an oar. He pulled in silence, looking over his shoulder and sitting a little sideways on the thwart, judging his distance and his moment. Every dip of his oars in the water had the effect he meant it to have. He pulled up wind far to the right of the gap in the reefs which he was aiming at. There the water boiled a little less violently and the waves, charging in, did not always break but dissolved into swirling eddies. There, too, the surf was fairly free from spinning lumps of ice. But all around this place the foam rushed up

and over the toothed rocks and streamed off them again in hissing torrents. Chunks of ice of fantastic shapes rocked and swung together in close-packed companies and threw up plumes of spray. Matheson let the pram fall back now upon the wind. He brought her opposite the gap in the turmoil along the beach. With swift strokes he pulled her away from the eddies that sucked at her and the foaming cataracts that flung her back. The rocks were all around us with their roaring water. I sat in the stern gripping the thwart and thinking "This one'll do for us," and "Now we're for it!" A huge sea with a toothed crest that danced against the sky rushed down upon us. It foamed along its top as it came. Masses of ice whirled upwards with it, dark upon its translucence. Matheson turned the pram swiftly bows on to the foe. We rose up and in an instant saw all the surf and the rocks with their streaming foam beneath us. On the back of this charging monster we went hurtling forward into the surf which boiled around the pram. She grounded upon the shingle. As the surf sucked back we leapt out up to our knees and pulled the boat up before the next wave raced in. We flung out the gear and carried it up the shingle bank where the sea could not reach it. Then we pushed the boat off again and, standing upon that sullen lonely beach, watched Matheson pull out once more through the holocaust to the Rapid where she rose aloft and vanished with her three watching figures a mile away.

To stand safe again on dry land seemed to us an overwhelming joy. It was the main thing, perhaps the only thing, life offered in that moment. Our troubles were over, we thought. Let the raging sea do what it liked. I bent down and touched the cold stones. I picked up a handful of them and let them run through my fingers, glistening, speckled, friendly fragments of the mother earth. The cold, shelterless, forbidding beach seemed to be the most desirable and hospitable place in the world, a refuge, an oasis. And it was steady beneath our feet.

But we were not yet all ashore. Matheson reached the Rapid and presently we could see him pulling back towards us, the heavy laden pram with its four occupants appearing and disappearing as we watched it. When at last she grounded we ran forward into the surf to help pull the boat up.

"Well done, Matheson!" we said.

"It's a bit tricky," replied the old man of the sea. "Aye, it's a bit tricky."

And for some time we stood in a row upon the beach, our gear flung down behind us, gazing in silence at the dreadful tumult we had come through.

We left the Rapid to fight the battle out alone, a tiny speck wallowing deserted a mile out to sea. Next day the sun shone from a clear sky and she was still there but rolling with a heavy sluggish motion. The sea was blue and calm on that day. Walker and George rowed out to her in the pram and pumped her dry. The deck of the engine compartment and of the forward cabin were awash with black, oily water. They left a red flag on a long pole flying from her housing so that the ship, when she arrived, as of course she would at any moment now, would see it through glasses.

But two days later it blew a gale more violent than before and the Rapid vanished for ever. We did not see her go.

Somewhere under twenty fathoms off that Antarctic shore the crouching beast lies cold and silent. Brittle stars and sea cucumbers crawl about the green cylinders, full of my compressed air, and twine around the blow-lamps which once roared at blast furnace heat. In the forward cabin there are lumps of rose and amber quartz, labelled and dated, whose jagged outlines have become softened by hydroids and encrusting polyzoa. Polychaete worms have begun to build on my rock specimens their long coiled tubes. And there are four terns' eggs safe for ever in the fore peak locker. No longer, alas, is it of any importance to . . . the lubricating pumps.

CHAPTER XXIII

IGLOO

THE first night we made an igloo. Old Matheson had been with the Hudson Bay Company in the Arctic and knew how the Eskimo does it. The igloo that we made was not quite as the Eskimo would have made it but when it was finished we looked at it with pride and told ourselves that we should sleep sound and comfortable under its shelter.

"Anyhow," we said, "the Eskimos keep up a temperature of eighty degrees Fahrenheit in their snow huts and they're not much different from ours. Not really. We ought to sleep pretty snug to-night." And we crept in on our bellies through its narrow mouth and made ourselves snug.

The tide, as it receded, had left upon the steep shingle bank a long irregular line of smoothed blocks of ice, some long and thin, some triangular and some round. formed a continuous low rampart at the very edge of the surf. Some were stuck together with their own iciness but others lay loose upon the stones. We used them as bricks for our ice house. At the top of the shingle bank, where the snow swept upwards from it to the mountain side, we tilted the pram up upon her gunwale. We argued for a long time which way this shelter ought to face. As the days went on we found that these arguments, which preceded every step we took, became longer and longer and more and more acrimonious. Everyone knew just what it was right to do and the decision between so many obvious rights became more and more difficult to arrive at. We were intolerant of other people's theories. Intervals of wordy inaction became the inevitable preludes to every venture, intervals filled with debate, acidly polite, carrying a thin crust of sweet reason which too heavy a hand might very easily break through. And later on did so.

1GLOO 263

- "I think it should face this way so that its back is to the prevailing wind."
- "Oh, do you really think so? I don't myself believe the prevailing wind is that way at all as a matter of fact."
 - "Oh, yes. I think you'll find it is at this time of year."
- "Well, I'm afraid I can't agree. We're actually much more likely to get a wind off the sea during the night."

We began like that.

We tilted the pram up with its back to the sea, supporting it with giant boulders so that it leaned over towards the snow slope. The sheer joy of being once more on dry land, able to do something again and forget our situation in violent action, made us work like Trojans. I was astonished at the feats of strength which I found myself able to perform in spite of my fatigue, rolling huge rocks along the shingle to build up our new house, a grimy and dishevelled Sisyphus. While we worked the sun shone faintly again through a luminous haze and from the low ice-cliff that overhung most of the beach the drops fell everywhere like jewels. Across the open side of the boat we built a high wall with stranded blocks of ice and cemented them with snow. Or rather Matheson built it, for since he had been in the Arctic and knew how the Eskimo does it we worked under his direction. We carried the blocks of ice, whose weight for their size was amazing and disconcerting, up from the margin of the sea and dropped them at Matheson's feet. They dripped down us as we carried them and soaked our legs, taking a last but unsatisfying revenge upon us for our escape. We competed for Matheson's approval with these icy smooth trophies, for the approbation of the master builder. "Get me long thin bricks," he said, selecting some and rejecting others. don't like your round ones. They're no use." As the wall grew higher and began to enclose the tiny space that was to be our house Matheson, with admirable skill, set back the ice bricks one above the other so that the wall arched over like a dome to meet the over-arching of the boat. "Tumble them home," he said. "You want to get a tumble-home." A tumble-home is the slope upward and inward of a ship's side from the water-line to the rail. The tumble-home of our house was the opalescent curve over of its roof to the gunwale of the pram. We packed the crevices between the ice blocks with snow and tamped it down. On the other side, the side formed by the underneath of the boat, we banked up stones and then lesser stones and then very small stones carried from some distance away in the tin baler, or between two boards held like a gardener's clappers or in our cupped hands. We rained them down around the foundations of our house so that they trickled into every crevice. They would keep out draughts. At one end, the bow end, of the boat we left a little hole through which we could just wriggle on our stomachs one at a time.

We looked at it with pride. There it stood, our stately pleasure dome, gleaming in the faint sunshine, tiny and alone upon that grey inhospitable strand. We had made ourselves a home as the Eskimo does it. It was a place of refuge, a haven. "We ought to be pretty snug," we said. "And, anyhow, the ship will be here to-morrow."

We crawled in one at a time on our stomachs and arranged the two sleeping-bags and the waterproof ground sheets. Inside the house was an opalescent light, a cold whiteness. The air within seemed to strike chill like the inside of a cold storage room. But we told ourselves we should get warm soon enough. There were only two sleeping-bags among the six of us. We decided that two should sleep in each bag and the other two as close together as possible between the couples in the bags, covered with as many duffel coats as we had. The duffel coats, however, were all soaking wet. Dispiriting thought. We drew lots with small pebbles. The Doctor and George made a pair, Matheson and the boy another and Walker and myself another. The pair that drew a black pebble got a sleeping-bag and the pair that drew a white one got the other. The pair that drew no

1GL00 265

pebble at all was to sleep between the other luckier ones under the wringing wet duffel coats. Walker and I drew no pebble at all.

The house was not wide enough for us to lie full length across it so we lay down diagonally almost on top of one another in a heap. We kept all our clothes on and Walker and I piled the wet duffel coats upon ourselves and, with our arms around each other, lay for some time with our eyes closed, challenging sleep to come to us. Old Matheson lay down next to me and almost on top of me in his sleeping-bag, a motionless dark overshadowing mountain that nearly crushed me. His massive behind pressed heavier and heavier upon my stomach until it became a struggle to breathe. The boy lay with him in the sleeping-bag next to the ice wall.

But the white wall that we had built with such care and skill dripped steadily all night. The water ran like sweat over the glistening faces of the ice bricks and trickled away under the stones. It fell in ceaseless thin streams upon our legs and, from the overhanging gunwale of the pram, on to our bodies. Walker and I lay trembling and quaking together in the icy cold. It seemed to reach out fingers and grip our limbs. We clung to each other in a clutching embrace each fighting for the warmth of the other's body, trembling together like two strung wires. How long we lay thus I cannot remember.

"God! What a game! I can't stand this," said Walker at last. And he got up, groping on all fours over the bodies of the others, and crawled out through the narrow entrance. I heard him stamping up and down upon the shingle outside. His footsteps diminished away down the beach and then returned, running, to fade away in the opposite direction. He passed many times, running, his heavy boots crunching upon the stones. I lay deserted like a chick upon a nest when the parent bird leaves it. I was shaking in every limb with cold. An uncontrollable ague passed in spasms through my body.

"Oh God!" I said in my turn. The others stirred uneasily and asked what was the matter. I lay for a while wondering how many nights of this were yet to come and praying that there would not be many. Then I got up, too, and stamped up and down the beach. And presently the others, one by one, crawled out with heavy sleepless eyes and limbs trembling with cold. We ran up and down upon the shingle and beat our hands upon our thighs.

The air temperature outside was too high for our igloo. It was scarcely below freezing. Only a very thin film of ice had formed upon the fresh water in the bucket which we had left outside the entrance. Throughout the night our house had been melting very slowly round us. We had put ourselves in a refrigerating chamber for the night. Evidently it was not quite as the Eskimo does it.

The ship was not there next day, the sixth since we had left our camp. But the weather relented and, as though for our especial benefit, our beach and its mountain became a little oasis of sunshine. A blue flat sea lapped gently upon the shingle and played with a kind of surprised innocence around the rampart of ice blocks which yesterday its fury had thrown up. The evil spirit was taking a day off. Yet out at sea and over the glaciers thick fog writhed and coiled, lifted a little and closed down. It almost hid the icebergs whose white shapes were faintly seen through its shifting veils.

We took new life. We slept upon the shingle in the warm sun. We washed in snow water heated over a brazier which George had brought ashore from the Rapid. We dried our clothes, spreading them out thankfully like an offering upon the stones. We felt certain, now that the blood pumped through our arteries with something of its old vigour, that the ship would come to-morrow. And even if she did not life was not so bad upon our beach. When at last the sun sank and the fog began to roll in from the sea, laying cold hands upon us again, we tilted up the pram somewhere else and built a better house.

1GL00 267

Matheson sat upon the shingle all day in the gentle sunshine and performed a miracle with his needle and his palm. Luckily for us he could never be separated from these emblems of his calling. The miracle that he performed consisted in making the two sleeping-bags into one large enough to hold four of us. Late in the evening when the sun had gone he had finished and spread his creation out for us to see. He had wound a gigantic quadruple shroud for us, stitched neatly along the bottom.

We chose another site for our house the second night a little lower down the steep bank of stones. We turned the boat completely upside down and banked it up all round with shingle. The house we made this time was almost wide enough for us to lie thwartships and, in our quadruple sleeping-bag, packed close together like sardines, we slept. We took turns to keep watch in pairs. When we put our ears down to the stones that formed the floor of our new house we could hear the minute bell-like sound of running water. It talked into our ears all night through our sleep for, like Alph the Sacred River, the melting snow ran beneath us through the shingle to the sea.

I slept. And constantly waking from dreams in which I moved among familiar scenes and faces, saw above me the dark arch of the boat, the thwarts close to my face and the round hole at one end like an eye. "No," I said. "I don't believe it. It doesn't happen to me."

We sat up in the early morning and looked at one another. Faintly yet distinctly we heard the long, low call of the ship's siren. She called three times from, as it seemed, a long way out at sea. A lonely and forlorn ghost call. "O-o-o-o-o. O-o-o-o. O-o-op" cut off sharp at the end. The boy who was keeping watch outside put his head in at the entrance agog with excitement. "I can't see nothing, sir, but I'm sure I heard the ship's whistle. Three times I heard it."

[&]quot;At last!" we said.

We crept out into the cold morning one by one. Thick fog hid the world and we saw nothing. But presently it lifted and we saw her, tiny and far off, hull down upon the horizon where the long headland, on which was our deserted camp, ran out into the sea. That little familiar shape was help and home and friends. There were people just over there, and yet so far away, whose every movement and turn of speech was as intimately known to us as our own and almost part of ourselves. Over there were the scenes that were part of our lives. There was the window where the Chief Engineer would be standing, almost certainly, at this moment, looking perhaps at these very mountain slopes behind our beach. The unmelodious maniac chorus of the cooks was probably now filling the air from the galley, if we could only hear it. Just there was my cabin exactly as I had left it with all my books, my boots and shoes in a row, my clothes hanging on their pegs. But I myself, the lord of that diminutive fuggy domain, here helpless and lost on this beach.

Distance gave to the little shape on the horizon the appearance of frozen and sluggish inaction. Nothing seemed to be happening. Through glasses we could see no figures moving on deck. We supposed they would be searching our camp. An hour or two would pass, no doubt, before they realized we were missing. Then they would begin to search for us, we thought. But after an hour, two, three, four hours, nothing had happened. She lay tiny and remote and lifeless, a little grey familiar far-off shape, the shape of hope.

"Well. We must just wait till they spot us," we told each other presently. "It can't be long now." And on the shingle we sat down and watched in silence, a row of anxious eyes trained on that distant but unattainable goal.

[&]quot;Anything happening?"

[&]quot;I can't see."

[&]quot;Light a flare. They might spot it."

1GLOO 269

- "That's no good. They'll never see that. Never!"
- "What a hell of a way out she's lying."
- "A full ten miles I should say."
- "They'll never see us."
- "It's no use."

But as we sat thus, wishing her towards us with all our strength, the great castles of ice that stood about the bay moved slowly like a fleet of battleships and stood in line directly between the ship and our beach. They hid her from us completely and us from her. To see her now we had to climb three or four hundred feet up the mountain side.

"Didn't I tell you?" I said. "An evil spirit lives here!"
And in the evening the fog came down again in whirling wraiths and shapes like drifting ghosts. The world once more was blotted out and became a grey sheet on which were etched the faint outlines of rocks and icebergs near at hand.

CHAPTER XXIV

SACRIFICIAL

UPON a shelf of snow facing the sea the Weddell seals lay sleeping motionless all day and all night. The tempests that raged around their bed meant nothing to them. The winds howled round them and the snow piled up against their bodies. The trails they made, smeared with their excrement, curved through the snow from the beach up to their resting place. We seldom saw them arrive at or leave this windy shelf but always about half a dozen lay there, dark inert shapes upon the whiteness. But sometimes, in the edges of the surf, a sleek head appeared, poised and alert, with round shining eyes. Then the long shape of the beast would draw itself out of the water on to the stones and change from a lithe swift arrow, darting with sure movements in the world it knew, to a clumsy helpless thing which wriggled awkwardly upon its belly. It dragged itself, pausing often from exhaustion, up to the snow shelf and lay down among its fellows. They took no notice of it but languidly raised their flippers and, with a grotesquely human gesture, scratched their mottled skins, or lifted their fan-shaped hind limbs aloft and rubbed them slowly together. When you approached them they raised their heads from their snowy pillows and looked at you with sad lambent eyes along the barrels of their bodies. They rolled over to change their position without altering their posture in an absurd circus way as I have seen seals do with a ball balanced upon their noses. If you touched them with your boot they writhed suddenly as though in agony and gave a hoarse cry. And their shining sorrowful eyes filled with tears.

Acidly polite we argued how to kill them, having no gun. I, who hate killing animals, felt all my high and humane principles melting into water before the craving for fresh

food which possessed me when we first landed after leaving the Rapid. The principles remained only as a faint dishonest belief that it would not displease me too much if we found the gory business beyond us. But I knew that if we were successful I should fall upon a stew of fresh seal meat like a wild beast.

- "I suggest a knife lashed to one of these long bamboo poles," said one. "I think a good swift jab to the heart would do the trick."
- "I bet it doesn't," I said. "I've seen elephant seals still living after being shot through the palate with a rifle."
- "I think if you could get him over the head with this hatchet——"
- "What about bashing his brains out with one of these big stones?"
 - "You'd never hit him."
- "I tell you what. You stand by with the hatchet. I'll stab him through the heart with this knife lashed to a pole. Then you go at his head with the hatchet."
 - "Bet you five shillings you don't kill him that way."
 - "All right then. Done!"

And with their weapons poised they advanced upon the innocent and slumbering foe. From a horrid and dishonourable curiosity, the curiosity that draws crowds to an execution, I went with them armed with a second pole, the function of which was uncertain. As we approached the enemy slept on. One of them scratched his side and gave a long sigh of contentment. But two of them looked at us with sad eyes full of reproach and opened their mouths. We chose our victim. He was a pale mottled grey and his silky tail, soft as velvet, opened fanwise as we watched him. He rolled over on his back and looked at us along his soft grey stomach and his eyes filled with tears. He gave a strange little protesting gulp, followed, after a second or two, by a metallic whistle down in his throat. They were his last words, for the executioner, his spear upraised, struck down deep into his

chest and jerked the knife out again. The dark blood pumped out and flowed on to the snow. The beast writhed, lifted his head and tail together, lashed sideways and up and down in the letter U, repeated many times upon the white sheet of his bed. The spear struck down again and from a new wound the blood rushed out afresh. The enemy was beaten without striking a blow for himself. Poor enemy! He knew no blow to strike. His only defence against all assaults was to flee, to go and to go swiftly, but in the unfamiliar world of dry land, face to face with this unknown and undreamt-of assailant, he could not even do that. He could only open his mouth wide showing his triple-pointed teeth and make the letter U upon the snow, smearing it with his dark blood. But the second blow paralysed him. He gasped, head up and mouth wide open, but writhed no more. He was fighting for air with the last of the little strength left to him. Then his lifted head fell back and suddenly he rolled over on to his belly. The blood belched out from the two wounds beneath him, a dark warm stream of life, and tunnelled for itself a crimson channel down to the mother earth. The sad eyes glazed and the mouth stretched itself into a dog-like grin. He was dead. But his fellows took no notice except to raise their heads and, with their mouths open, reproach us with their eyes for what we had done. Soon they found that what we had done was no concern of theirs and they resumed their sleep with sighs of slothful comfort. Lazily they raised their tail flippers aloft and rubbed them one against the other as though washing their hands of the whole business.

"You owe me five shillings."

Under the skin the blubber was cold to the touch but the black meat that we stripped off the back was warm and sprung quivering from the touch of the knife. A faint steam rose from it. As we worked it grew cold and clammy and soon it no longer steamed. We cut out the liver. A moist, intestinal breath came from the inside and the guts

still moved. We stripped off all the meat we could and, taking the liver with us, we dragged it piecemeal back to the ice-house we had built with the pram. Then we returned and brought the skin down to our swiftly growing dwelling, for we should need the blubber for fuel. We left the carcass on the snow shelf, black amid its crimson trampled bed. When we crept out from our ice house early next morning to warm our chilled bodies a company of foul birds were clawing and tearing at the carcass with their gory beaks. From their nests upon the rocky headlands miles away the Stinker petrels had come like vultures scenting carrion. With wings outstretched they hopped and paddled round it, drove one another off with hoarse cries of rage and greed or tugged at strings of guts. They worried the black meat off the bones, scattering blood broadside and trampling it into the snow with their huge webbed feet. Sometimes they hopped on top of the carcass and fought there to be driven off again by others, a loathsome king-of-the-castle game surrounded by blood and guts. A raucous clamour rose from them and when you came near they waddled away, with spread wings and splay feet flapping, to watch from afar until you had gone. Then one by one, warily, suspiciously, bespattered necks stretched forward, they returned. And at last, when gorged to the full, they waddled to the water's edge and floated there too heavy with their revolting meal to rise. They paddled along the water with their feet, wings outspread for flight, striving to take off. Sometimes, so gorged were they, they could not lift themselves far enough to spread their wings at all. Infuriating predicament! Finally, to get back home after the feast, they must vomit up most of what they had eaten into the sea. Midas, surely, never underwent greater vexation at the hands of the harpies! But then, paddling thus lightened over the water, they rose and took their majestic flight homeward, soaring upon the wind. Watching them go, robbed of those last few morsels that make all the difference between mere satisfaction and glorious satiety, we read a moral of sorts into their misfortune.

When we first landed our craving for fresh food was such that our narrow strip of shingle beach became unsafe for any living thing. There was no colony of penguins near it but towards the close of each day a few penguins were incautious enough to land on the beach to sleep, flapping on their bellies out of the surf. Once arrived they stood about for days in twos and threes in profound contemplation, their heads sunk upon their breasts. Sometimes for no reason they lifted their heads and squawked or, waddling to the water's edge, paddled on their bellies into the surf and were off home again. Compared with the seals they were easy. All you had to do was to get them between your knees. Then you found the soft skin behind the skull, drove a needle in and gave it a turn. It killed them instantly, of course, with no pain at all. Of course.

Two of them stood on the beach while we were building our ice house, their heads sunk, their beaks upraised, their boot-button eyes almost closed. They little knew. Occasionally, at the noise we were making, they straightened their necks and were nervously alert for some seconds. Now and again they moved a few paces farther away from the scene of disturbance. I borrowed Matheson's sail needle and advanced upon them, a gigantic death in seaboots. They waddled away with squawks of alarm, flippers held out stiffly behind them. As I pursued them with murder in my eye they fell upon their bellies and flapped along the stones. I fell on to one of them in a sort of rugger tackle and pinioned him, flapping and squawking, to the ground. He pecked savagely but vainly at my seaboots and buffeted my legs with his flippers. His companion, finding himself no longer pursued, stopped in his undignified progress and stood several paces off watching with alert detachment. When I had the muscular little body with its board-like wings gripped firmly between my legs I felt

behind the head for the right spot, the critical place where death is so instantaneous and so merciful, his Achilles' heel. This must be it. No, perhaps here. Yes, and I drove the needle home overcoming a slight sick feeling which, idiotically no doubt, I cannot avoid when killing anything warm and full of the life God gave it. My needle sank in. As, with a horrid ease, the needle ran home my victim gave a long sigh and fell limp, quivering between my legs. I laid him, trembling and kicking feebly, upon the stones, his beak half open.

While I skinned him and cut the black meat off his breast his companion came to look. He advanced with neck stretched out, curious and unafraid. When I walked away, the job done, and left the opened carcass lying upon the stones he still stood there touching the dead body of his playmate gently with his beak and uttering the little harsh cry that means, "Where are you?"

We killed other penguins that day. We scraped a hole in the snow in which we buried the black seal and penguin meat. We marked the place with a pole.

"We've enough fresh meat for a day or so now," we said and washed the blood off our hands with snow.

Seal meat is coarse and black and sometimes it has a sickening oily taste which catches you suddenly unawares and which I think is quite loathsome. Penguin meat is much the same but it plays a straighter game. It does not catch you unexpectedly with a revolting mouthful. In the Discovery II we often killed seals towards the end of the season when the meat supplies were running low. We hung the black carcasses in the rigging. "Seal steak, sir?" but nearly always I and several others either delicately left ours on our plates or found ourselves suddenly with an unpleasant mouthful and were compelled, much less delicately, to eject it. But somehow, under the pram upon our wind-swept beach, we lost our sense of taste. Manna from heaven could not have seemed more delicious than lumps of seal or penguin

meat made into a hash with a handful of oatmeal. We had two meals a day, two plates of stew each, cooked by old Jock Matheson in the huge, faithful and satisfying saucepan, sooty and heavy and broad-based for an old-fashioned kitchen range. The saucepan sat somewhat precariously upon an iron brazier which the guardian angel of one or other of us had left in the after peak of the Rapid. George found it there, lying upon its side under buckets and coils of rope, and brought it ashore. It stood proudly on three legs in an iron tray. We started the fire in the brazier with slivers of wood damped with paraffin, and then hung little squares of seal blubber over the embers on a frame of twisted wire. The blubber melted and dripped with a crackle on to the embers below. The drips burnt with a bright smoky flame that stank and sent up a hovering cloud of little black smuts. As Matheson stirred his cooking pot over this smelly greasy little altar he lifted it from time to time so that one of us, sitting nearby, could drop on to the fire a chunk of blubber with our hands or with a sharp splint of wood. Sometimes the chunk of blubber missed the wire frame on which we meant to drop it and fell into the brazier. When that happened it was liable to put the fire out and we would have to light it again. This was at first just a nuisance but later it became a continually recurring disaster, for we began to run short of paraffin and matches. When, as always seemed to be the case, it happened while I was tending the fire I used to resort to subterfuge to keep the knowledge of the calamity from Walker and, if I could, from Matheson. But it was not easy. When a voice said, from the dark interior of the shelter, "For God's sake go easy on the paraffin there!" I knew that I had been caught out. When old Matheson cooked the seal hash over the fire the smoke rose and filled his beard and hair with black smuts. It filled ours, too, when we tended it. They hung from our eyebrows and eyelids and we brushed them away, smearing the soot in streaks across our faces.

We kept the fire going all day and all night with chunks of blubber, keeping watches to tend it. Our hands became covered in grease which we wiped off on our clothes. The bitter smoke stung our eyes and blackened our faces. At night we placed the brazier in the entrance to our shelter and warmed ourselves at its flickering smoky flames as much as we could, sitting over it in turns. It filled the inside of our house with acrid fumes and covered the roof with soot, but its light, dancing on the over-arching timbers of the boat, was a friendly and reassuring thing. It cheered us as we lay with our arms around each other in our quadruple sleeping bag, shivering and fearing to fall asleep because of the horror of waking.

CHAPTER XXV

THALASSA!

"Come on, lads! Rouse out! Rouse out! The sea! The sea's coming in! Rouse out!"

Lying in the dim shadow of our shelter we heard Matheson's feet upon the stones outside and his urgent call at the narrow entrance. For some hours, in the half-state between sleeping and waking, we had sensed the pounding roar of the surf. It mingled with our troubled dreams. As it grew louder and nearer we only shivered a little more and clung closer to each other for warmth. Now, when Matheson shouted to us from the patch of daylight that marked the entrance, we did nothing but turn uneasily and swear.

"Rouse out!" he shouted. "Come on. Rouse out, lads! The sea! The sea!"

We had no spirit left. When the fog had come down the mountain side the evening before and the *Discovery* vanished from our sight, she took with her all our energy. Now, if the sea came in and swamped us, we did not care. We were soaking wet and only in a frantic bear-like embrace could we draw warmth from each other. We lay hugging each other listening with dull apathy to Matheson's urgent call to action and to the menacing uproar of the sea close to our door.

Before the ship had disappeared into the fog we had goaded ourselves into furious activity, striving desperately to attract her attention. We sacrificed four penguins and dyed a square of canvas with their blood. We held them upside down over it and swung them to and fro so that the blood dripped from their heads. We smeared it on to the white canvas until it was an even red. Thus we made a flag. Walker lashed our two bamboo poles together and set up our crimson banner on a shoulder of rock overlooking the beach, a snow slope behind it to show it up.

- "I think that's the best place," said Walker surveying his handiwork from the beach. But even from so short a distance it looked a minute, feebly fluttering dot. Out at sea I felt sure it would be quite invisible.
 - "They'll never see it," I said pessimistically.
- "I think perhaps if you put it over there——" said the Doctor.

This done we had scaled the nearest scree slope carrying a can of fuel oil and had built, high above the sea, a semicircle of stones. We would make a bonfire there so that the ship should spot us when she reappeared. But while we were working to build our cairn the fog turned to a fine driving rain. We saw it sweeping towards us over the glacier face below. Soon we felt its cold touch upon our faces. The rocks presently glistened and dripped with wet. The wrinkled sea was hidden and far below, beside the tiny dot on the beach that marked our upturned boat, a pin point of light glowed where Matheson was making a seal hash over the blubber stove.

"Nothing will burn in this," we said, "and we're only getting soaked ourselves."

So we left it and, wet and dispirited, we slipped and slid down again a thousand feet to the beach.

When we returned to our shelter our clothes were soaking wet. The fine driving rain trickled down our necks and dripped from the ends of our noses. We crawled into the shelter on our stomachs, one by one, and took off our duffel coats. We piled them in a clammy heap inside the entrance. We ate our most welcome hash in silence. Then, slightly fortified but still depressed, we fought our way into our fourfold sleeping-bag and hugged each other's wet bodies to our own.

- "Can't you move over a bit? I've no room at all."
- "Neither have I. And you've got more than your share of the cover."

[&]quot;Let me get my arm out. It's gone dead."

"My bottom's jammed against these blasted stones. Move up for God's sake."

During the grey night it grew colder and colder. It rained without ceasing so that the roof of our house dripped upon us as we lay under it. Those whose turn it was to tend the blubber stove in the entrance lay for warmth upon the legs of those who tried to sleep. From time to time they roused themselves to throw on to the stove another crackling lump of blubber or to crawl out into the rain in order to cut from the buried heap of seal skin some more greasy chunks of blubber for fuel.

And when the morning came and the sea seemed to pound around our very ears, Matheson called:

"Rouse out, lads! Rouse out! The sea! The sea will be here in a moment!"

But we only stirred uneasily for it did not seem to matter. We roused ourselves at last, one by one. When I looked out through the hole that led into our burrow the dreadful desolation of the place seemed to paralyse the mind. The rain streamed slantwise across the beach and all but the feet of the mountain was hidden by a driving mist. We could not see our flag, dyed with penguins' blood, upon the near shoulder. A furious grey sea, pounding upon the shingle, threw the white line of stranded ice blocks higher up the beach every few seconds. While I was mechanically pulling on my sea-boots, my mind an utter blank registering nothing but weary misery, one of the ice blocks rolled into the entrance. A frothing line of foam died upon our doorstep. We crawled out and stood shivering in the pouring rain, pulling on our already wet coats.

"Up with her. All together!"

We raised the pram up on to her side and all the stones so carefully banked around her the day before rattled down in a disordered heap. The jumbled mass of wet clothes thus suddenly and indecently exposed to the light of day we flung in haste farther up the beach. In five minutes the sea swirled over the place where we had lain uneasily all night. It filled the impress of our bodies with revolving eddies of froth and piled up in it white bricks of ice.

Out at sea the *Rapid*, surrounded by a beleaguering host of ice fragments, wallowed amid the grey tumult. The flag placed on her 'midships housing two days ago still flew, wagging from side to side as she rolled, its pole bending in the wind.

We propped the pram up now so as to make a lee with its back to the wind and rain. Under this very inadequate protection we tried to dry our clothes over the blubber stove. But it was no good. The blubber stove was much too small. If we hung things over it they burnt and became covered with soot. Only two or three of us at a time could get near enough to the fire to feel any warmth whatever from it. And two had to sit half outside the shelter for there was not room for everyone within it.

We shivered in miserable and lugubrious silence. The rain dripped steadily upon our legs. All around us lay the wet disorder of our possessions, the sodden desecrated little kingdom we had made for ourselves. The tin of oatmealrunning low now, the sugar in another tin-running lower still, the tea in a third, all covered by a wet cloth to protect them from the wetter rain. Useless! There was no protection from such rain. It was everywhere like sand at a picnic. The plates we ate off piled in a wooden box. They were smeared by dirty fingers, chipped and cracked, and they bore the remains of the morning's stew upon them. All our cups chipped, too, and one broken in half. Matheson used an empty tin instead. "The best cup in the ship," he said. Tins of fuel oil. A tin of paraffin, very precious since it was almost empty. The primus stove we could not use because of the almost emptiness of the paraffin tin. The seal meat for our next hash soaking in a pannikin of reddened water. The rain made rings in it and the meat stuck up through its little scarlet lake as tiny black mountains, capes and headlands. The opened penguin carcasses—blood clots smeared upon wet feathers. The heap of scal skins with parts hacked off to feed the blubber stove. Pools of water lay in their slimy folds. The little pile of blubber squares for the fire. Fragments of wet wood scattered around. Dreadful and dreary and everywhere the wet shininess of rain, the tiny plashing of drops into little pools. The stones gleaming faintly, those near at hand reddened with old seal and penguin blood. The far-reaching curve of the shingle and the white line of piled-up ice losing themselves in the nothingness of the middle distance.

- "She won't come back in this."
- "I wish I could see the end of it all."

"We'd better turn the boat up again and get back into the sleeping-bag. No use sitting here like this. She won't be here to-day, anyway."

So we turned the boat upside down once more, this time where the sea could not reach us. In the streaming, driving downpour we banked the stones up around her again. We worked with furious and astonishing haste and soon had made another burrow into which we crept one by one. But the stones were wet inside. So was the waterproof sheet we spread over them. So, too, was the four-fold sleeping-bag into which we fought our way again. So, too, even wetter than before, were the clothes we piled at the entrance. I lay next to George and we put our arms round one another. "Come on, old cock!" he said. "That's right, cheer up!"

We lay for hours thus listening to the hiss of the rain on the roof close above us, a smaller but nearer sound than the pounding roar of the sea. Walker and Matheson sat over the blubber stove in the entrance all but obscuring the day-light that leaked in timidly through that small round hole. The fire crackled spasmodically as they fed fresh lumps of blubber on to it. From the wet stones on which we lay the cold struck up into our shivering bodies through the sleeping bag and the waterproof sheet beneath it. Icy pencils of

wind drove in through the crevices between the banked-up stones. As the slow hours passed the wind rose to a hurricane and shrieked along the beach. The rain spun like grapeshot upon the upturned boat.

"I wish I could see the end of all this."

"She'll come back all right."

"I hope so. I'm sure I hope so."

There was a long silence.

"I hope to God it's bloody soon then."

"I can't stick much more of this sort of thing."

A curious lassitude began to creep slowly over us. wanted to do nothing but lie there and allow dreadful fantasies to fill our minds. The fantasies that filled mine seem ludicrous now that I recall them. Perhaps that is natural, but I record them with a certain shame and rather wonder, in this safe, comfortable moment, how I could have been such a fool. Even as I gave way to them, letting them rush into my head and enlarge to monstrous dimensions from sheer lack of the mental energy to resist them, I thought "Come, this is ridiculous. You're losing grip. Don't give way." And immediately gave way all the more and allowed my imagination to become grotesque and to paint for myself nightmare pictures. Supposing the ship did not come as the days dragged on. One loses the will to keep on living, I thought. We should just lie here and not bother to eat, failing first in spirit and then in body. We should just go on shivering like this --worse and worse until suddenly we stopped shivering. Then we should just lie and not care. That's how you die of cold.

- " I say, Doc."
- " Hallo."
- "When people die of exposure I suppose they just get weaker and weaker -----?"
 - " Why?"
 - "Oh, nothing. I was just wondering."

There was something inimical and malignant about this

place. The mountains that swept up from the beach—they hated you. In the imagination this evil hostility grew. "We shan't get away from here," I told myself. "It's got us."

From the silence we kept for hours together, broken only by an occasional restless movement, a faint sound of protest at some cramp or other discomfort, and now and then a long-drawn sigh, I guessed that I was not alone in my horrid fancies. Sometimes they spoke. They comforted me slightly if only by giving themselves away. They showed that they, too, were moving in the same ugly world of fantasy as I.

"I suppose," said a voice, "I suppose if we had to spend a winter here we could keep ourselves warm with penguin skins."

"I think we ought to have a shot at getting back to the camp as soon as the weather clears. Better than this awful place."

A long silence, a silence filled with our own personal noises—Walker repeatedly clearing his throat, a sigh, a muttered protest.

"We could last a winter I suppose. They'd be sure to send a ship down in the spring."

Thirty-four, I thought. Not very old, but not such a bad way to end. Better than growing old and decaying away in bed. Not very painful, either they say. "In the untimely death of F. D. Ommanney in the Antarctic with his five gallant companions"—we should be gallant of course, though why, God knows—"the world has been robbed of one of its most promising."... Most promising what?... "After some discussion it was suggested that a memorial plate should be placed in the R.R.S. Discovery II suitably inscribed."... "Their grave is the sea."... "They that go down to the sea in ships."... Or perhaps just R.I.P. You can't beat that, really. So much more restrained. Don't be idiotic. You're losing grip.

In the hurricane that was now blowing we could hear,

above the hiss of the rain and wind, the increasing tumult of the surf.

"There's a hell of a sea running," said Matheson, peering out of the entrance, "but she's riding it."

When it was my turn to keep watch I saw the Rapid plunging and diving at her anchorage, half hidden by veils of rain. The red flag she carried described swift arcs against the grey sky.

I sat over the blubber stove, my back against the dirty heap of soaking wet clothes and sea-boots piled up at the entrance to the burrow. Clothes had long ago become common property. When we went outside we seized any coat that came handy. They were all equally wet, equally dirty and equally useless for protection. We pulled on any pair of sea-boots. Near me as I crouched over the stove was the tin baler with the slimy chunks of blubber in it. From time to time I picked one up and placed it on the fire. crackled and sent up a cloud of smoke into the burrow. The acrid stench of seal blubber clung to my hands and to my clothes, and to all our hands and all our clothes. store of blubber in the baler was running low. I should soon have to crawl out into the rain and cut some more off the skins. I felt weak at the thought of the physical-effort that would be required to do this. I hated to go out into that flying evil greyness. We were a tiny speck in the midst of an infinite terrifying desolation. It weighed upon the spirit.

But in the evening of that day the wind died down, the rain stopped and a faint sun came out again. We crept out like slugs after rain, slowly, carefully, ready to withdraw instantly into our shell. We stood upright on our feet once more. We dragged the blubber stove out on to the shingle. Matheson made a hash with a very little oatmeal in it because the oatmeal was running short. It was damp, anyway. We drank some tea with no milk in it and very little sugar. And, indeed, not much tea either for we had hardly

any left. We set up our flag dyed with penguins' blood on its promontory again since the wind had blown it down. Then we took the brazier and a can of fuel oil up the slope a little way and made a flare. There was no one to see it out at sea but it was comforting to do it. It was comforting to be doing anything even if it were slightly futile and the exercise of toiling up and down the slope brought back our feeble circulation. But as we worked the wind increased once more, blowing from the opposite direction, in puffs, in gusts, and then steadily. It blew our flare out and soon was blowing so hard we could not relight it. We carried the brazier down to the beach again.

Then it began to snow, a little at first, then harder. Soon the snow was whirling and slanting down, a driving stinging pestilence, and we crept back to earth. The fury of the sea never abated and the wind was soon another hurricane.

"We'll never get away from this," I said, making my contribution to the prevailing gloom. "It's got us."

The snow drove down upon us relentlessly all that night. It covered the beach down to the margin of the surf with a powdering of white, overcoming the wetness of yesterday's rain. The powdering grew by degrees and thickened until it was a smooth mantle. Our shelter became a rounded hummock in the whiteness, a pimple on the bleached face of the shore line, and all our disordered and diminishing gear, scattered upon the stones around it, became buried beneath increasing drifts. The direction of the wind was now opposite to that of yesterday so that the entrance to our tiny burrow became a round mouth which blew upon us all night like the pursed lips of the cherub Boreas. It blew an icy blast laden with powdered snow which rushed in through the hole as though rejoicing to find a place to settle upon as yet uncovered. It whirled up to the roof and settled upon the outside of our sleeping-bag, melting there into a clammy wetness. It found out bits of nose, cheek, forchead or hand and touched them with tiny icy fingers. Those in the sleeping bag cowered down burying their heads beneath the cover, while those whose turn it was to watch retreated like hermit crabs farther up on to the bodies of those in the sleeping-bag. They pulled the blubber stove farther and farther in after them, filling the burrow with tear-provoking fumes until the pursed lips at the entrance blew the fire out. It blew it out repeatedly and we lighted it again. But at last, cowering and shivering, we left it. We were robbed of even that spark of comfort for our matches were running low. When they gave out it would be serious.

Early in the morning Matheson built a wall of snow, a wind-break, across the entrance. To this he added two side walls. Lying in a state of shivering coma we heard his muffled footsteps padding about in the snow outside. When he had finished the wind no longer blew in upon us and the whirling eddies of snow turned back baffled from the entrance. For this relief we made little noises of gratitude, hugged each other closer and settled down into new positions of cramped discomfort. We lay open-eyed, unsleeping, horrible imaginings chasing each other through our minds. Old Matheson relit the stove and sat crouched over it. I could just see him by its flickering light, stolid and impassive, his beard filled with the bright drops of melting snow.

It was a bitter embrace that we lay in. Our tempers were not improving and our patience was leaking slowly away. As for me, I was not, as the Doctor told me diagnostically afterwards, my normal self. That was when I apologized for the following acrimonious passage of arms, one of many, in which I took an unworthy part, my teeth chattering so that I could scarcely utter the ill-disposed words.

- "What the bloody hell are you playing at?"
- "Trying to get some more room. What does it look as though I'm doing?"
 - "Not at my expense, blast you!"
 - "You've got more than your share already."

- "That's a damned lie. Look where your backside is and where mine is!"
 - "Don't talk through the back of your neck. Lie still."
 - "The hell I will! Go on, get over!"

And I gave the offending backside a butt with my own, but in the expectation of some such assault it had wedged itself firmly. It was immovable as rock. But we were both so exhausted by this encounter that it ended as did all the others. We sighed and lay down as before in cramped misery until it was the turn of one or the other of us to crawl out of the bag and keep watch over the fire in the entrance.

The vultures found the seal meat. Buried though it was beneath a mound of old snow a foot deep to which the night's new fall had added another foot, yet the Stinker petrels found it. Until now they had sometimes stood upon the snow slope afar off watching us, but our constant coming and going around the shelter had kept them off. But now that we had been lying inside hidden for many hours they plucked up courage, believing us to be gone. They came hopping and waddling down the slope on their spade-like feet, their wings outspread, their necks stretched forward. They uncovered our larder and dragged it forth, gobbling and tearing at it, driving each other off and ever returning with ungainly sidelong hops. But in their ghoulish rivalry they betrayed themselves. We heard their indecent croaking as they fought for what we chose to call our own. Whichever of us was keeping watch again and again crawled out from the entrance into the bitter wind and flying snow to drive them off. These sorties were difficult. They were exhausting. For all the watchman wished to do, particularly if the watchman were myself, was to cower over the stove and shiver.

"Those blasted birds again!"

You pushed the stove out of the entrance so that, on your hands and knees, you could just squeeze between it and the snow wall that Matheson had thrown up around the door-

way. Then you lifted the baler with the slices of blubber in it and placed that outside also. You crawled out on your stomach over the stones which, at the threshold, were slimy with a film of molten blubber dripped upon them from the stove. You stood up and faced the weather, head down against the stinging blizzard. The great uncouth birds, their dun-coloured backs dusted with snow, hopped off a pace or two when they saw you. When you pursued them they spread their wings and paddled away along the snow to a safe distance, leaving behind splay footmarks on the whiteness. While you buried the seal meat, ragged from their pecking, once more beneath a two-foot mound they waited, watching, until you had crept into the burrow again and pulled the stove in after you. Then they stealthily returned and you heard them gobbling and croaking once again outside your door. And you cursed, for to make another sally just yet awhile you were too utterly weary.

It was after one of these sorties during Matheson's watch early the next morning that he put his head in at the entrance of the shelter and said:

"The Rapid's gone, lads. She's sunk."

We crept out into the snow to see. There was nothing to see, only the tumbling, grey waste of water and icebergs looming faintly.

- "Or dragged her anchor," we said, "and drifted."
- "More likely foundered. She'd have taken a deal o' water by now."
- "Well, well!" continued old Matheson presently. "Ah, well. I'll make a bit o' hash."

But our last link seemed gone now. Somehow we felt much more alone, much smaller and more helpless upon our Antarctic beach. And it snowed all that day and all the following night.

CHAPTER XXVI

A SHIP! A SHIP!

"HI, there! A ship, boys! A ship! A strange craft. A sailing ship!"

Our beach stretched white to the tide marks. It had snowed upon our burrow without ceasing for thirty-six hours, trickling in through the crevices and dripping through the roof while we lay in speechless misery in the half state between sleeping and waking. We wished to do nothing but lie thus. But now the snow had stopped and the fog had rolled back from the sca. The icebergs stood clear and hard again and far away we could see, for the first time for three days, the long low line of the headland where we had pitched our camp nearly a fortnight ago.

"Hi, there!" cried Walker at the entrance to the burrow.
"A ship, boys! A three-master, a sailing ship! It's the *Penola*, I think."

We roused ourselves slowly one by one, pulled our wet clothes out of the heap by the doorway and put them on. We pulled on our sea-boots and crawled out on our hands and knees. When we stood upright outside the glare blinded us for a moment. Then presently we saw her, balanced upon the horizon, swinging gently from side to side, a little sailing ship with sails furled making inshore towards us. Her masts and rigging were a triangle against the livid morning sky.

"It's the *Penola*," we said in astonishment. "We'll be all right now." And we grinned into each other's drawn and blackened faces, showing our yellow teeth.

The Penola was the ship of the British Graham's Land Expedition, a small three-masted schooner. On her way from Port Stanley to the base camp on the Argentine Islands off the west coast of Graham's Land she had heard the radio call

from the Discovery II: "Six men missing from camp. Apprehensive but still hope to find them." Aboard her there were pleasant cheerful people whom we knew well, young men being tough in the Antarctic for the fun of it. When you stepped aboard her untidy decks you felt that for you also the Antarctic was perhaps just an adventure and that all your earliest dreams also had been filled with these fields of ice and these snow-covered mountains. However, as I stood on that beach feeling not at all tough and not finding the Antarctic any fun at all, I wondered how one could so deceive oneself. The crew of the Penola were mostly amateur sailors and had sailed their little ship across the grey Southern Ocean because they had always wanted to "do something." And it was certainly something to take that little schooner through the seas they took her through. It was the bright chance of being able to do something, also, which brought them eastward off their course when they heard of the apprehension in a fog somewhere near King George Island. To our eyes she seemed, that dainty ship, an unbelievable and lovely mirage. Slowly she enlarged towards us. Clouds charged with snow brushed the sea and momentarily hid her from us, passed on and showed her to us again. We climbed the snow slope behind the beach and capered about to attract her attention. The Zulu in his war dance could not have bettered our frenzy just then. We joined hands and trooped up and down like a chain of Morris dancers. We carried the brazier and the lumps of blubber in the tin baler up the slope. We burned the opened penguin carcasses which we had left lying about the beach. They were covered with snow many inches thick, but we dug them out. They sent up a slanting plume of smoke which fled from us and disappeared like a ghost upon the mountain side. "Come on!" we shouted. "Come on! She's getting nearer. Come on!"

But the eager eyes aboard the Penola, scanning the shore

through glasses, saw only six penguins flapping their wings on the snow slope. With a kind of sick despair we saw her turn away to port, showing us her three masts and tapering bow. In that landscape, with nothing by which to judge size or distance, that mistake was very easy. It was almost exactly a year since we ourselves in the Bay of Whales had made the converse of it. We had taken penguins for human figures. As the *Penola* passed away from us, veiled by flying mists, we stood still upon the snow slope and looked blankly at one another. And the brazier, having devoured the last penguin skin and sent it up the mountain side in unregarded smoke, flickered and went out.

Old Matheson fetched it down again and lit it. disinterred some seal meat and washed it in a pannikin of water. Then he took the fresh-water bucket and tramped away up the beach to the dripping ice cliff to fill it. What was the use of standing about gaping? He had no time to waste on hope deferred. There was work to be done and the sight of him silently and imperturbably doing it roused us from the gloom which had suddenly rushed upon us like a dark flood. We cleared the snow away from the roof of the shelter and spread our wet clothes upon it to dry in the pale sun. We carried some large stones a little way up the snow slope and built a cairn on which we set up two crossed oars. While we were doing these things our eyes were continually turned towards the sea. The Penola was far out now and hull down, diminishing towards the north-east, but in the direction in which she was heading we suddenly saw a new and unfamiliar shape grow up from the horizon, a shape of speed and power, a man-of-war.

We dropped the stones we carried and gaped again openmouthed at this apparition. The stones rolled away down the slope to the beach again.

"The Ajax!"

A light winked from her upperworks. And now the bay seemed to be full of ships for, over the tops of the icebergs,

we saw again that better known and friendlier shape, our own ship. An Armada, it seemed, had come for us.

The cruiser Ajax, while we lay shivering under the pram upon our beach, had been on a visit to South Georgia with the Governor of the Falkland Islands on board. His Excellency stayed for several days on King Edward's Point with the Magistrate and was entertained by the manager of the whaling station. He entertained back. He went on an expedition across Cumberland Bay to shoot the reindeer, introduced by the Norwegians years ago and now flourishing on an isthmus like the green bay tree, so much so that a yearly shoot is organized to discourage them a little. After a few days the Ajax sailed for Port Stanley, where she was due to give a dance in the Town Hall. But shortly after leaving South Georgia she received the message from Discovery II and, dance or no dance, turned and headed southwards at thirty knots. Within twenty-four hours she loomed into view of our tired and anxious eyes.

The Captain of Discovery II went aboard her.

- "How long can you stay?"
- "A week if necessary."
- "Can you search the beaches?"
- "I can't put my boats out in this swell."
- "Will you search a square of open sea thirty miles wide to the west of this bay? They may have drifted. *Penola* will work another square to eastward. I'll stay here and search the beaches."

The *Penola* came alongside the man-of-war, dwarfed by those grey embattled sides. Ryder, her young captain, looking upwards towards the fore-truck of his little ship, shouted, "Can I be of any assistance to you?" And the men gazing down in rows from the cruiser's deck laughed at the tiny untidy craft and at her eager crew so anxious to do something. *Penola* spread her sails and, upon wings of beauty, disappeared to eastward round the far headland.

From our beach we saw the Ajax, long and lithe, pass

westwards in front of us along the course the *Penola* had followed an hour ago, but in the opposite direction. Once more we danced and capered on the snow slope like maniacs.

"They must see us," we told each other. "They'll have a look-out on every quarter. They're bound to see us."

It seemed impossible that she should miss us but she turned to the north away from our beach. Her long low shape became a triangle which dwindled steadily and remorselessly upon the horizon. She too vanished into the morning sky.

We paced the snow-covered beach singly and in silence, chewing upon our own private wrath and disappointment. From the upturned boat to the end of the beach where the Weddell seals lay sleeping on their shelf of snow in comfortable indifference. Back again to the upturned boat. From the boat to the low ice cliffs beneath the promontory where our flag, dyed with penguins' blood, still fluttered vainly from its pole. And back again to the boat. The snow was soon trampled by our separate and individual trampings back and forth. Each time I returned to the boat in this dreary promenade, my mind dark with a gloom of its own making, the boy ran towards me, crunching through the snow in his heavy sea-boots.

- "I say, sir. D'you think they'll find us, sir?"
- "I hope so."
- "D'you think they'll search the beaches?"
- "I'm sure they will."
- "They won't miss this one, will they, sir?"
- "Not if they do the job properly."
- "D'you think they'll do it proper?"
- "Why not?"
- "I dunno."

And I went on with my march up and down and with my own thoughts, leaving him staring at the now empty sea, his face that was once pink and round now thin and blackened with ten days' grime.

From time to time we climbed the mountain side a little way to gaze over the tops of the icebergs at the far-off shape of our own ship, motionless, apparently inactive, at the anchorage. So far as we could see she was doing nothing.

"What the hell is she playing at?" we said angrily, and strained our eyes to make out some movement, some sign of life, on that distant shape.

Matheson looked at the sky. He wetted his finger and held it up.

"It's a steady day," he said. "Aye. It's the steadiest day we've had yet. Two of us could pull out to her in the pram in a couple of hours if the wind held."

"I wouldn't risk it. Better wait till they pick us up. They're certain to search the beaches. If you try to pull out to her—well, you might get there or you might not. If a squall came down from the glacier you'd blow out to sea. They wouldn't spot you."

The inevitable schism developed and we became divided again into two opposite camps. Matheson and George were for taking the pram and rowing the seven miles to the ship. They would leave the rest of us on the beach with the sleeping-bags until we should be picked up. The Doctor agreed with them. "A couple of hours and you'd be there," he said with assurance. "We'd be aboard by tonight. We'd be able to sleep in dry bunks again." It all looked and sounded too easy, but Walker was not so sure and I was against it altogether. I felt sure that the ship was not spending these hours of daylight in fruitless inaction as she appeared to be, but was even now sending search parties to the beaches east of ours. Later, when they had examined the others, I believed they would land here and find us. thought it unwise to trust the weather which, during the last ten days, had failed us with dour persistence on every possible occasion. Besides, there was the evil spirit to think of. It was inconceivable that he would let us get away so easily. He was collecting his strength without a doubt for another shot at us. Somewhere behind us over the glaciers and snow fields a bagful of wind and snow was waiting to be unloosed at the appropriate moment. Why provide that moment? Why play straight into the enemy's hands?

"I wouldn't risk it," I said. "Better wait till they pick us up."

But old Jock Matheson was so sure of himself and of his purpose that he persuaded first Walker and then me. But we compromised once more and for the last time. It was agreed that we should wait until early the next morning. If the weather had held and still seemed steady and if the ship were still at her anchorage, Matheson and George should take the pram, leaving the rest of us on the beach with the sleeping-bags. I gave way, knowing they would go no matter what I said.

And, having taken this decision, exhausted with argument, we took another look at the empty sea and crept into our burrow again. It was long past noon and nothing is so tiring as disappointment or fruitless expectation. We should need sleep before to-morrow. But no one slept. We lay and thought all the more. With help so plainly near we fell into a state of gloom deeper than ever before.

Between our own beach with its high mountains and the headland where our deserted camp stood, given over these ten days to the elephant seals, a long high buttress of rock, Brimstone Point, ran out into the sea, toothed like the edge of a saw. Its grim, pale brown cliffs, crumbling into loose screes, dropped a thousand feet sheer into swirling foam, but here and there they sent out feet into the sea which presented to the pounding waves cliffs only a hundred feet or so in height. On the flat tops of these feet of rock, and on the beaches they enclosed, myriads of penguins made a shifting black and white multitude which deafened with its clamour and suffocated with its stench. Up to them from the sea ran zigzag roadways hardened by the paddling of countless

cushioned feet. The traffic up and down them never ceased. Everywhere among the throng the rocks and earth were caked with foul slimy excrement, slashed in streaks of brown and white, the accumulation of a season's droppings. Over all lay a harvest of feathers, thick on the ground as if they had been rained down from the sky. Diminutive decaying corpses lay around and rotted, the skin shrunk from the bones, the guts picked out by the white paddies which fluttered pigeon-like among the penguins, their breasts and beaks fouled with carrion. The young penguins, covered with dark grey down and smeared with filth, stood about in groups, huddling together with miserable disconsolate sounds, in aggregate a thin high-pitched piping. Their grown up guardians, bored to extinction with their thankless stewardship, stood among their charges, fled from their insistent clamour for food, buffeted and thwacked at them with their flippers or rushed out to make furious assaults on wanderers from adjacent groups. But many stood on the roadways to the sea or on the beaches contemplating the infinite.

Into this uproar and domestic disharmony came Deacon and Marr late on that day, clawing their way up the cliffs from one beach to the next. They were covered with slime, their hands were sore from clutching at the sharp crumbling rocks, their legs smarting from the vicious pecks which dagger-like beaks thrust at them from every direction as they climbed. They slipped and stumbled frequently upon all fours. Since early that morning when the Penola and Ajax had departed east and west to search the open sea, they had rowed off in the whaler through the heavy swell or scrambled down the cliffs to search every beach from Cape Melville, the easternmost point of the island, round the whole of the coast to the east of Esther Harbour. But they had found no sign of the missing party nor any trace of wreckage which might have given them a clue. When they reached Brimstone Point they were foot-sore and very tired. They had almost ceased to hope for the success of their search. Now, as they climbed wearily up the crumbling slopes, the penguins, infuriated by their intrusion upon the privacy of their odorous citadel and looking upon it as a personal affront to themselves, rushed at them with squawks of rage, smacked at their faces as they drew level with each ledge and drove their bayonet-like beaks with diminutive savagery at their limbs. A clamour of indignation arose on all sides. Waves of protest preceded the searchers and spread outwards through the chattering multitude behind them. Flocks of young birds fled before them in reasonless panic, stumbling over each other, rolling helplessly down the slimy rock faces. The guardians pecked and buffeted their panicstricken charges or, bristling with fury, turned and faced the oncoming foe. And the foe, oncoming still but slowly, wearily, covered with filth and worn out with this fruitless storming of slime-encrusted heights, struck out at the tiny savage defenders. They kicked them sideways and sent them spinning down the rocks. They lifted them under their tails and sent them head over heels. They punched them on their hard white breasts so that they fell flapping backwards into the muck. In blind rage the defenders struck out at the rocks on to which they fell. A disorderly rabble of screaming youngsters went rushing like Gadarene swine violently down steep places to the sea. But the search party found no more trace of what they sought on Brimstone Point than on any other of those steep beaches round the coast from Cape Melville westwards. They gave it up and left that stronghold of stench to its gallant defenders, who to this day are unconvinced that they were not the victims of an outrageous act of unprovoked aggression. The weary and defeated aggressors retreated to their ship in the whaler, pulling back once more through the high swell. Screams of triumph and derision followed them from the shore.

The next beach they must examine lay to the westward some four or five miles away, flanked by glaciers and backed

by towering snow slop:s. From Brimstone Point a huge mass of rock could be seen there pushing up through the mantle of ice and snow that lay around it. Whether there was a beach there or not was doubtful, but they must go and see, for no possible place must be left out. So the ship weighed anchor and moved westwards towards this next rock buttress, the second point west of the observation camp, late on the same day when the sun was declining behind the white highlands from a sky smoky with the promise of snow.

"Come on, lads! Rouse out! She's coming inshore! Come out and wave. Wave anything you can get hold of! Come on!"

We crept out again. She had moved westwards and now stood off our beach heading inshore. But she was still very far off and very tiny. We seized the sleeping bags and the waterproof sheets beneath them and ran once again up the snow slope with them. Matheson and the Doctor attached one of the covers to the two oars we had set up on the cairn. With this held aloft between them like a Salvation Army banner they trooped along the mountain side one behind the other, in the fervent hope that it would draw salvation towards them. We spread ourselves out in the form of a cross upon the snow hoping that if we made a geometrical pattern we should attract the attention of the eyes which we knew must be watching from the ship. But our symbol of hope did not last very long, because its component parts broke away from one another, each occupied with his own particular activity. George tended the brazier set up once more upon the slope. He loaded it with moss and poured on to it the fuel oil, the last we had. At each dose of oil an evanescent puff of black smoke fled up the mountain side and was gone.

"Wave, George! Wave! They won't see that bloody fire!"

[&]quot; Eh? "

"I said—they won't see that fire."

"Eh? Oh, they might see it. Aye, they might do."

Suddenly I wanted to scream and smash something. I yelled and shouted at the top of my voice:

"Come on! Come on, she's coming in! Closer! Nearer! She's coming in, boys! Keep it up! Keep on waving! Wave like hell! She's coming."

I had one of the waterproof ground sheets and waved it at arm's length in a semicircle from the ground over my head and down to the ground again from left to right and from right to left. My arms and sides ached from it. The boy was capering in the snow above me waving another ground sheet.

"She's seen us, sir! She's seen us. She's blowing."

A long white plume fled from her funnel, soundless because of the offshore wind. They had spotted us.

But the evil spirit of the second point west of the observation camp had one more shot in his locker. As the whaler pulled away from the ship, a little speck from where we watched it vanishing and reappearing in the swell, the sky darkened over the western glacier. We saw the boat pull up wind, the rhythmic strong sweep of her oars catching the light. From the glacier a dark veil of snow swept down upon her and ruffled the sea into a sudden anger. She disappeared. The dark veil spread on out to sea and hid the ship. We heard her blowing faintly.

"She's calling the boat back," we said.

Yet when the squall had passed on the whaler was still there pulling strongly for the shore, her bows turned towards us. Her oars moved as one with a sure and heartening beat.

Now we heaved the pram up from its bed of banked stones and suddenly our dwelling place, our home, was no more. We had lain in shivering misery for what seemed an eternity under its shelter and now all at once it became just a damp hollow in a pile of stones, a place without meaning on an empty beach. And the roof of our house became again the

bottom of a boat, blackened with soot from the brazier which still flickered half-way up the snow slope. We pulled the pram down to the sea and loaded into it our soiled and torn quadruple sleeping-bag, a few grimy chipped cups and plates, the primus stove, the enamel pail, two bent aluminium pannikins and the faithful saucepan. One of the pannikins held a little oatmeal, all the food we had left except the remains of the seal meat buried beneath the snow. That we bequeathed to the vultures. When the whaler stood off the reefs we pulled out to her:

But the old iron brazier still stands half way up the snow slope at the second point west of the observation camp. We forgot to bring it away. It will never burn again. Higher still, above the moss platform where the terns will carry on their eternal business next summer, a tin of fuel oil stands beside a semicircle of stones. The melting snow will bring the stones rattling down the slope next spring. The flag, dyed with penguins' blood, must have blown down long ago. And on the beach there lies a pair of sea-boots, my sea-boots, which Walker, the last to jump into the pram when we left, kicked off his feet on to the stones. If you ever go to the second point west of the observation camp and find them there you may keep them. Pray that you never do.

And now, at the sight of those well-known, friendly, cheerful faces, at the sound of their familiar voices and the touch of their strong hand-clasps, the evil spirit of that sinister place fled defeated to his solitudes, back to his high throne of lichened rock and his encompassing wastes of snow. There, cheated of his prey, he waits maybe ten, a hundred, a thousand years before anyone again, in ignorance and folly, dares to land on his beach to get fresh water. Out of the pale twilight of a southern night, he drew down upon himself a veil of mist.

CHAPTER XXVII

LOOK HOMEWARD!

THE whaling season is over. With the winds of March old Carlsen goes sealing again with the Don Ernesto round the beaches still strewn with the skeletons of last spring, long picked clean. With the evanescent snows of April the Harbon, after weeks of preparation, pulls out into King Edward's Cove and disappears slowly round Shackleton's Cairn. She takes with her most of the population of that busy community. As she steams out of sight she blows a long farewell to the winter party left behind under the mountain. The factory whistle on the blubber shed replies. It is a melancholy sound, farewell for five months. The catchers lie moored alongside one another at the station jetty-Narval, Foca, Morsa, Orca and Don Miles-their guns dismantled, their summer's hunting finished. In May come the steady lasting snows and all the grim slopes are clothed in white. The shining surface of the harbour is glazed with new formed ice. Upon Grytviken a silence descends like sleep.

The whaling fleet is up from the south. The barrel-topped masts of hundreds of catchers, laid up for the winter, fill the blue sky of Cape Town like a forest of larches.

The last to leave the Southern Ocean, we too are homeward bound, rolling through the tropics with the awnings up and wind shutes flapping fore and aft. It is too hot to sleep below so that the men drag their mattresses up on to the deck and sleep beneath the awning. Others sleep under the shelter of the boat deck aft beside the winch house and some again on the upper bridge whence hot, angry showers of rain frequently drive them down, sleepy and indignant, trailing their soaked bedding. The scientists sleep uneasily in the laboratory, where it is cool enough but noisy with the

clink of glass tubes and jars shifting in their racks. It is an unsatisfactory business anyway, this sleeping away from your appointed place, and we rouse out with no particular regrets early each morning to work the water bottles from the foc'sle head davit. Every morning as we do this our eyes are turned towards the east, towards the eternal miracle of the dawn. And in the evening, doing it again, we turn them towards the west. Next day, when we are two hundred miles farther north—nearer by that much to England—the same pageant will be enacted again in this very same lonely place, but then there will be no eyes to see it. No ears will hear the little lisp of the dawn or evening wind upon the great flat face of the sea.

When the sun has risen from splendour towards his hot zenith we tow daily a huge conical net with a circular mouth fifteen feet in diameter. We tow it with the trawling wire from the main winch and it takes the strength of a whole watch heaving upon the after derrick to lift its cumbrous circular iron frame over the poop rail. The great ring hangs over the water while the long folds of the net are paid out over the rail until the net with the bucket on the end of it trails astern over the water like a serpent. Then the men, letting the falls run gently, lower the ring slowly into the water and old Jack Cook pays out from the winch so that the nct slides away astern and down, down into the clear blue gloom, until it fades from sight. We lower this gaping maw to immense depths, six and seven thousand feet, into a black, formless world of utter darkness and abysmal quiet, peopled by creatures of bizarre and sometimes nightmare shapes. When, after three hours, the net comes up again, closed like a trap, the poop is thronged with people waiting eagerly to see the fantastic, the unbelievable, snared and brought up to the cruel glare of a tropic noon. There they are, incredible things. The huge scarlet deep-sea prawns nearly a foot long, still furiously paddling with their blade-like feet. The fish with long attenuated bodies and enormous gaping mouths armed with fangs—each a delirium tremens in miniature. The fish with vast telescopic eyes made to entrap the faintest suspicion of light that may filter down to their dark world. The anglers with cavernous mouths and luminous knobs on their heads, some with their mates attached to them as reduced and helpless parasites. The swift-darting cuttle-fish with their mottled colours, their crown of tentacles like the fronds of young bracken and their eyes like pearls.

All the life of the sea becomes an astonishing and varied spectacle in the tropics, though actually the ocean is empty of life compared with the cold Southern Ocean from which we have come. But there is more to see. "Portuguese Menof-War" and "By-the-Wind Sailors" float past, sailing happily to whatever destruction the wind may take them. Flying fish skim in squadrons over the waves. Sometimes, carried away by their own velocity, they land on the deck with a thump. These are the unlucky ones for they are pounced upon at once and taken as souvenirs. At night, after sunset, when we are working the water bottles myriads of young flying fish play like insects overside under the glow of the ship's lights. And out of the darkness into the light come giant cuttle-fish, torpedoes too swift for any net to catch. They change from vermilion to flesh pink as they shoot from the darkness into the circle of light. They dart forwards, their long arms reach out and clasp, the crown of tentacles opens suddenly like a flower around the central mouth. A flying fish is snapped up and gone and the devouring monster shoots backwards into the darkness again, changing from flesh pink to vermilion as he goes. And there is Johnny Shark nosing around, gliding through the blue depths, sometimes cutting the surface with his back fin, sometimes showing his white belly, the very form and shape of evil. At the word "Shark!" the hands go running aft and line the poop rail, eagerly peering down. An old piece of meat on a stout iron hook goes over the side. "There he is! See 'im?"

"O-o-h--Crikey!"

The sun beats down upon backs, upon necks and arms. Will he take it? No. Next time? Ah! No.

- "It's your blinkin' ugly mug what's scarin' im."
- "Garn! It's the cooks' meat 'e can't stick. Partic'lar 'e is. Not like us sailors."
- "What about you gettin' over the side. A lump out of that stern of yours 'ud soon fetch 'im."
- "Yours 'ud be no good, anyway. Too bleedin' old and tough!"

Johnny Shark noses around the bait. And then another shadow appears out of the gloom. Now there are two. "What about a swim now?" He comes up to the bait. He whisks away and back again. With machine-like precision the little striped pilot fish that accompany him match his every movement, turning with him this way and that. Sailors say they guide the shark to his food, but this is untrue. They follow him and keep him company, feeding on the crumbs that fall from the rich man's table. He comes up to the bait again. A gleam of white belly shows.

"Ah! He's got it! Heave him up!"

They pull him up so that he hangs, flapping and thrashing the air with his tail, half-way between the poop rail and the water, hooked by his dreadful crescent of teeth. Vengeance upon Johnny Shark! Vengeance upon him for some sailor unknown, screaming and choking downwards amid a whirl of bubbles and a slowly thickening cloud of red. They catch others, cut out their guts with a stout knife and let them go. Thus degutted Johnny Shark sinks sideways out of sight, his gashed white belly trailing a crimson pennant. Vengeance upon Johnny Shark!

In the afternoon the sun rides downwards through a brazen sky islanded with hard clouds. All round the ship there is an uproar of holystoning and scraping. The shining coat of new paint, battleship grey or gleaming black, spreads itself everywhere. It begins on the boat deck. It

creeps up the masts. It invades the bridge, shining and pungent. It is a good job to be on, this. It means homeward bound and they whistle and sing as they slap it on with a cheerful tunelessness that bores into the brain like a drill.

Those who have leisure for such things—the idlers—lie around upon the decks sunning themselves. Some bodies and limbs thus exposed brown to a becoming golden bronze. Others change to a scaly red and become a torment. And while some are good to look at, others, like mine, are angular and hairy and are exposed only in secluded places such as the upper bridge where the fierce resentful eye of the sun alone observes them. But it is only the sailors of the new school who do such things as this. Those of the old don't hold with it and if, while painting on the boat deck or on the upper bridge, they come upon a body stretched out in the sun they assume a mask-like passivity of countenance and studiously avert their eyes.

When the sun goes down towards the west and the men knock off from their feverish holystoning, scraping, painting and varnishing, the evening becomes hideous above the swish of the sea with the raucous screech of stale jazz played on portable gramophones under the awning. What is this craving for noise that seems to possess us all nowadays? Any sort of noise rather than silence, the noise that murders thought. However, this is a pleasant time of the day. The Plough and the Pleiades come out and hang above us once again. The Southern Cross (that disappointing constellation) is low in the south. And a hot wind from Africa wafts up to them our cheap little twentieth-century hymn of praise:

"An' I foun' that gold
When I landed on that sil-vree shore."

sings the potted glutinous voice of a crooner from the fore deck. And yet it is a hymn of praise, for in our own way, sub-consciously, we are worshipping the sun and giving thanks to the stars. The long black nights and gloomy days,

the sullen seas and incessant rolling, the long hours of "look-out" and "stations," these are all forgotten. It is astonishing how soon the sun and fair weather dim the sailor's memory of these things. They sit about on the foredeck playing cribbage, reading, listening to the gramophone. Or, more energetic, they exercise themselves on the deck, spar with the gloves or heave a medicine ball about. Their hoarse laughter comes up to us through the wardroom windows as we sit at dinner. Forget the past, enjoy the present and let the future take care of itself. The past is finished with anyway—dead. Only the present is living. The future is not yet born.

- "Me? Oh, I'll get some job or other, I expect."
- "What? Come back in this packet again? Not bloody likely!"
- "Giving up the sea after this trip, I am. Get a shore job—that's me."

It is the unattainable goal, the "fata morgana," of sailors, that job ashore. For once the sea gets a man it holds him. There is no escape. As the years go on the shore becomes more and more an alien place full of unpredictable, strange adventures, legendary and remote. For always, and the world over, the enticing, alluring dim region beyond the gangway turns out to be only just the same old pub beyond the dock gates, the main street with its leering sharp faces under the lights and unsatisfying attainments. And the thick head or worse to come after. So when you get older you do not go ashore but sit, wise in your generation, on the safe side of the gangway, gazing of an evening unenviously at the unfamiliar world beyond the quay. It is no place for a sailor, that, anyway. They are all sharks there, who do you down, pinch your money and leave you flat. So I know, when I hear them talking in this simple and ingenuous way about giving up the sea and about launching out onto seas far more perilous than the Southern Ocean, that they will all sail again, or nearly all—if not in this ship then in some other. When they pay off, their hard-earned cash, necessarily saved at sea because there is no way of spending it, will soon all be gone "having a good time," whatever that may mean. And when the good time is over it will be so much easier to slip round to the shipping-master's office and sign on again—if not in this ship then in some other. The call of the sea is all my eye—it is the impossibility of escape. The sea is terribly possessive.

- "D'you know of a quick way of making money, sir?"
- "No, son. I don't."
- "How would it be if I bought a coffee stall . . .?"
- "I'm in with a young widow at 'ome what runs a nice little tobacco business. On a good thing there, I am!...
- "I'm all right. Five pound a week job waiting for me..."
- "Going into partnership with a bloke as runs a pub in Kent..."
- "I've got ambitions you know, sir. I'm going to attend evening classes when I get home..."

But the sea is terribly possessive.

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