SOUTH!

THE STORY OF SHACKLETON'S LAST EXPEDITION 1914–1917

BY SIR ERNEST SHACKLETON C.V.O.



TO MY COMRADES WHO FELL IN THE WHITE WARFARE OF THE SOUTH AND ON THE RED FIELDS OF FRANCE AND FLANDERS



CHAPTER IX

THE BOAT JOURNEY

The increasing sea made it necessary for us to drag the boats farther up the beach. This was a task for all hands, and after much labour we got the boats into safe positions among the rocks and made fast the painters to big boulders. Then I discussed with Wild and Worsley the chances of reaching South Georgia before the winter locked the seas against us. Some effort had to be made to secure relief. Privation and exposure had left their mark on the party, and the health and mental condition of several men were causing me serious

anxiety. Blackborrow's feet, which had been frost-bitten during the boat journey, were in a bad way, and the two doctors feared that an operation would be necessary. They told me that the toes would have to be amputated unless animation could be restored within a short period. Then the food-supply was a vital consideration. We had left ten cases of provisions in the crevice of the rocks at our first camping-place on the island. An examination of our stores showed that we had full rations for the whole party for a period of five weeks. The rations could be spread over three months on a reduced allowance and probably would be supplemented by seals and sea-elephants to some extent. I did not dare to count with full confidence on supplies of meat and blubber, for the animals seemed to have deserted the beach and the winter was near. Our stocks included three seals and two and a half skins (with blubber attached). We were mainly dependent on the blubber for fuel, and, after making a preliminary survey of the situation, I decided that the party must be limited to one hot meal a day.

A boat journey in search of relief was necessary and must not be delayed. That conclusion was forced upon me. The nearest port where assistance could certainly be secured was Port Stanley, in the Falkland Islands, 540 miles away, but we could scarcely hope to beat up against the prevailing north-westerly wind in a frail and weakened boat with a small sail area. South Georgia was over 800 miles away, but lay in the area of the west winds, and I could count upon finding whalers at any of the whaling-stations on the east coast. A boat party might make the voyage and be back with relief within a month, provided that the sea was clear of ice and the boat survive the great seas. It was not difficult to decide that South Georgia must be the objective, and I proceeded to plan ways and means. The hazards of a boat journey across 800 miles of stormy sub-Antarctic ocean were obvious, but I calculated that at worst the venture would add nothing to the risks of the men left on the island. There would be fewer mouths to feed during the winter and the boat would not require to take more than one month's provisions for six men, for if we did not make South Georgia in that time we were sure to go under. A consideration that had weight with me was that there was no chance at all of any search being made for us on Elephant Island. The case required to be argued in some detail, since all hands knew that the perils of the proposed journey were extreme. The risk was justified solely by our urgent need of assistance. The ocean south of Cape Horn in the middle of May is known to be the most tempestuous storm-swept area of water in the world. The weather then is unsettled, the

skies are dull and overcast, and the gales are almost unceasing. We had to face these conditions in a small and weather-beaten boat, already strained by the work of the months that had passed. Worsley and Wild realized that the attempt must be made, and they both asked to be allowed to accompany me on the voyage. I told Wild at once that he would have to stay behind. I relied upon him to hold the party together while I was away and to make the best of his way to Deception Island with the men in the spring in the event of our failure to bring help. Worsley I would take with me, for I had a very high opinion of his accuracy and quickness as a navigator, and especially in the snapping and working out of positions in difficult circumstances—an opinion that was only enhanced during the actual journey. Four other men would be required, and I decided to call for volunteers, although, as a matter of fact, I pretty well knew which of the people I would select. Crean I proposed to leave on the island as a right-hand man for Wild, but he begged so hard to be allowed to come in the boat that, after consultation with Wild, I promised to take him. I called the men together, explained my plan, and asked for volunteers. Many came forward at once. Some were not fit enough for the work that would have to be done, and others would not have been much use in the boat since they were not seasoned sailors, though the experiences of recent months entitled them to some consideration as seafaring men. McIlroy and Macklin were both anxious to go but realized that their duty lay on the island with the sick men. They suggested that I should take Blackborrow in order that he might have shelter and warmth as quickly as possible, but I had to veto this idea. It would be hard enough for fit men to live in the boat. Indeed, I did not see how a sick man, lying helpless in the bottom of the boat, could possibly survive in the heavy weather we were sure to encounter. I finally selected McNeish, McCarthy, and Vincent in addition to Worsley and Crean. The crew seemed a strong one, and as I looked at the men I felt confidence increasing.

The decision made, I walked through the blizzard with Worsley and Wild to examine the *James Caird*. The 20-ft. boat had never looked big; she appeared to have shrunk in some mysterious way when I viewed her in the light of our new undertaking. She was an ordinary ship's whaler, fairly strong, but showing signs of the strains she had endured since the crushing of the *Endurance*. Where she was holed in leaving the pack was, fortunately, about the water-line and easily patched. Standing beside her, we glanced at the fringe of the storm-swept, tumultuous sea that formed our path. Clearly, our voyage

would be a big adventure. I called the carpenter and asked him if he could do anything to make the boat more seaworthy. He first inquired if he was to go with me, and seemed quite pleased when I said "Yes." He was over fifty years of age and not altogether fit, but he had a good knowledge of sailing-boats and was very quick. McCarthy said that he could contrive some sort of covering for the *James Caird* if he might use the lids of the cases and the four sledge-runners that we had lashed inside the boat for use in the event of a landing on Graham Land at Wilhelmina Bay. This bay, at one time the goal of our desire, had been left behind in the covering with some of our canvas; and he set about making his plans at once.

Noon had passed and the gale was more severe than ever. We could not proceed with our preparations that day. The tents were suffering in the wind and the sea was rising. We made our way to the snow-slope at the shoreward end of the spit, with the intention of digging a hole in the snow large enough to provide shelter for the party. I had an idea that Wild and his men might camp there during my absence, since it seemed impossible that the tents could hold together for many more days against the attacks of the wind; but an examination of the spot indicated that any hole we could dig probably would be filled quickly by the drift. At dark, about 5 p.m., we all turned in, after a supper consisting of a pannikin of hot milk, one of our precious biscuits, and a cold penguin leg each. The gale was stronger than ever on the following morning (April 20). No work could be done. Blizzard and snow, snow and blizzard, sudden lulls and fierce returns. During the lulls we could see on the far horizon to the north-east bergs of all shapes and sizes driving along before the gale, and the sinister appearance of the swift-moving masses made us thankful indeed that, instead of battling with the storm amid the ice, we were required only to face the drift from the glaciers and the inland heights. The gusts might throw us off our feet, but at least we fell on solid ground and not on the rocking floes. Two seals came up on the beach that day, one of them within ten yards of my tent. So urgent was our need of food and blubber that I called all hands and organized a line of beaters instead of simply walking up to the seal and hitting it on the nose. We were prepared to fall upon this seal *en* masse if it attempted to escape. The kill was made with a pick-handle, and in a few minutes five days' food and six days' fuel were stowed in a place of safety among the boulders above high-water mark. During this day the cook, who had worked well on the

floe and throughout the boat journey, suddenly collapsed. I happened to be at the galley at the moment and saw him fall. I pulled him down the slope to his tent and pushed him into its shelter with orders to his tent-mates to keep him in his sleeping-bag until I allowed him to come out or the doctors said he was fit enough. Then I took out to replace the cook one of the men who had expressed a desire to lie down and die. The task of keeping the galley fire alight was both difficult and strenuous, and it took his thoughts away from the chances of immediate dissolution. In fact, I found him a little later gravely concerned over the drying of a naturally not over-clean pair of socks which were hung up in close proximity to our evening milk. Occupation had brought his thoughts back to the ordinary cares of life. There was a lull in the bad weather on April 21, and the carpenter started to collect material for the decking of the James Caird. He fitted the mast of the Stancomb Wills fore and aft inside the James Caird as a hog-back and thus strengthened the keel with the object of preventing our boat "hogging"-that is, buckling in heavy seas. He had not sufficient wood to provide a deck, but by using the sledge-runners and box-lids he made a framework extending from the forecastle aft to a well. It was a patched-up affair, but it provided a base for a canvas covering. We had a bolt of canvas frozen stiff, and this material had to be cut and then thawed out over the blubber-stove, foot by foot, in order that it might be sewn into the form of a cover. When it had been nailed and screwed into position it certainly gave an appearance of safety to the boat, though I had an uneasy feeling that it bore a strong likeness to stage scenery, which may look like a granite wall and is in fact nothing better than canvas and lath. As events proved, the covering served its purpose well. We certainly could not have lived through the voyage without it. Another fierce gale was blowing on April 22, interfering with our preparations for the voyage. The cooker from No. 5 tent came adrift in a gust, and, although it was chased to the water's edge, it disappeared for good. Blackborrow's feet were giving him much pain, and McIlroy and Macklin thought it would be necessary for them to operate soon. They were under the impression then that they had no chloroform, but they found some subsequently in the medicine-chest after we had left. Some cases of stores left on a rock off the spit on the day of our arrival were retrieved during this day. We were setting aside stores for the boat journey and choosing the essential equipment from the scanty stock at our disposal. Two ten-gallon casks had to be filled with water melted down from ice collected at the foot of the glacier. This was a rather slow business. The blubber-stove was kept going all night, and the watchmen emptied the water into the casks from the pot in which the ice was melted. A working party started to dig a hole in the snow-slope about forty feet above sea-level with the object of providing a site for a camp. They made fairly good progress at first, but the snow drifted down unceasingly from the inland ice, and in the end the party had to give up the project.

The weather was fine on April 23, and we hurried forward our preparations. It was on this day I decided finally that the crew for the *James Caird* should consist of Worsley, Crean, McNeish, McCarthy, Vincent, and myself. A storm came on about noon, with driving snow and heavy squalls. Occasionally the air would clear for a few minutes, and we could see a line of pack-ice, five miles out, driving across from west to east. This sight increased my anxiety to get away quickly. Winter was advancing, and soon the pack might close completely round the island and stay our departure for days or even for weeks, I did not think that ice would remain around Elephant Island continuously during the winter, since the strong winds and fast currents would keep it in motion. We had noticed ice and bergs, going past at the rate of four or five knots. A certain amount of ice was held up about the end of our spit, but the sea was clear where the boat would have to be launched. Worsley, Wild, and I climbed to the summit of the seaward rocks and examined the ice from a better vantage-point than the beach offered. The belt of pack outside appeared to be sufficiently broken for our purposes, and I decided that, unless the conditions forbade it, we would make a start in the *James Caird* on the following morning. Obviously the pack might close at any time. This decision made, I spent the rest of the day looking over the boat, gear, and stores, and discussing plans with Worsley and Wild.

Our last night on the solid ground of Elephant Island was cold and uncomfortable. We turned out at dawn and had breakfast. Then we launched the *Stancomb Wills* and loaded her with stores, gear, and ballast, which would be transferred to the *James Caird* when the heavier boat had been launched. The ballast consisted of bags made from blankets and filled with sand, making a total weight of about 1000 lbs. In addition we had gathered a number of round boulders and about 250 lbs. of ice, which would supplement our two casks of water.

The stores taken in the *James Caird*, which would last six men for one month, were as follows:

30 boxes of matches.
6½ gallons paraffin.
1 tin methylated spirit.
10 boxes of flamers.
1 box of blue lights.
2 Primus stoves with spare parts and prickers.
1 Nansen aluminium cooker.
6 sleeping-bags.
A few spare socks.
A few candles and some blubber-oil in an oil-bag.

Food:

3 cases sledging rations = 300 rations.
2 cases nut food = 200 "
2 cases biscuits = 600 biscuits.
1 case lump sugar.
30 packets of Trumilk.
1 tin. of Bovril cubes.
1 tin of Cerebos salt.
36 gallons of water.
250 lbs. of ice.

Instruments:

Sextant. Sea-anchor. Binoculars. Charts. Prismatic compass. Aneroid.

The swell was slight when the *Stancomb Wills* was launched and the boat got under way without any difficulty; but half an hour later, when we were pulling down the *James Caird*, the swell increased suddenly. Apparently the movement of the ice outside had made an opening and allowed the sea to run in without being blanketed by the line of pack. The swell made things difficult. Many of us got wet to the waist while dragging the boat out—a serious matter in that climate. When the *James Caird* was afloat in the surf she nearly capsized among the rocks before we could get her clear, and Vincent and the carpenter, who were on the deck, were thrown into the water. This was really bad luck, for the two men would have small chance of drying their clothes after we had got under way. Hurley,

who had the eye of the professional photographer for "incidents," secured a picture of the upset, and I firmly believe that he would have liked the two unfortunate men to remain in the water until he could get a "snap" at close quarters; but we hauled them out immediately, regardless of his feelings.



The *James Caird* was soon clear of the breakers. We used all the available ropes as a long painter to prevent her drifting away to the north-east, and then the *Stancomb Wills* came alongside, transferred her load, and went back to the shore for more. As she was being beached this time the sea took her stern and half filled her with water. She had to be turned over and emptied before the return journey could be made. Every member of the crew of the *Stancomb Wills* was wet to the skin. The water-casks were towed behind the *Stancomb Wills* on this second journey, and the swell, which was increasing rapidly, drove the boat on to the rocks, where one of the casks was slightly stove in. This accident proved later to be a serious one, since some sea-water had entered the cask and the contents were now brackish.

By midday the *James Caird* was ready for the voyage. Vincent and the carpenter had secured some dry clothes by exchange with members of the shore party (I heard afterwards that it was a full fortnight before the soaked garments were finally dried), and the boat's crew was standing by waiting for the order to cast off. A moderate westerly breeze was blowing. I went ashore in the *Stancomb Wills* and had a last word with Wild, who was remaining in full command, with directions as to his course of action in the event of our failure to bring relief, but I practically left the whole situation and scope of action and

decision to his own judgment, secure in the knowledge that he would act wisely. I told him that I trusted the party to him and said good-bye to the men. Then we pushed off for the last time, and within a few minutes I was aboard the *James Caird*. The crew of the *Stancomb Wills* shook hands with us as the boats bumped together and offered us the last good wishes. Then, setting our jib, we cut the painter and moved away to the north-east. The men who were staying behind made a pathetic little group on the beach, with the grim heights of the island behind them and the sea seething at their feet, but they waved to us and gave three hearty cheers. There was hope in their hearts and they trusted us to bring the help that they needed.

I had all sails set, and the *James Caird* quickly dipped the beach and its line of dark figures. The westerly wind took us rapidly to the line of pack, and as we entered it I stood up with my arm around the mast, directing the steering, so as to avoid the great lumps of ice that were flung about in the heave of the sea. The pack thickened and we were forced to turn almost due east, running before the wind towards a gap I had seen in the morning from the high ground. I could not see the gap now, but we had come out on its bearing and I was prepared to find that it had been influenced by the easterly drift. At four o'clock in the afternoon we found the channel, much narrower than it had seemed in the morning but still navigable. Dropping sail, we rowed through without touching the ice anywhere, and by 5.30 p.m. we were clear of the pack with open water before us. We passed one more piece of ice in the darkness an hour later, but the pack lay behind, and with a fair wind swelling the sails we steered our little craft through the night, our hopes centred on our distant goal. The swell was very heavy now, and when the time came for our first evening meal we found great difficulty in keeping the Primus lamp alight and preventing the hoosh splashing out of the pot. Three men were needed to attend to the cooking, one man holding the lamp and two men guarding the aluminium cooking-pot, which had to be lifted clear of the Primus whenever the movement of the boat threatened to cause a disaster. Then the lamp had to be protected from water, for sprays were coming over the bows and our flimsy decking was by no means water-tight. All these operations were conducted in the confined space under the decking, where the men lay or knelt and adjusted themselves as best they could to the angles of our cases and ballast. It was uncomfortable, but we found consolation in the reflection that without the decking we could not have used the cooker at all.

The tale of the next sixteen days is one of supreme strife amid heaving waters. The sub-Antarctic Ocean lived up to its evil winter reputation. I decided to run north for at least two days while the wind held and so get into warmer weather before turning to the east and laying a course for South Georgia. We took two-hourly spells at the tiller. The men who were not on watch crawled into the sodden sleeping-bags and tried to forget their troubles for a period; but there was no comfort in the boat. The bags and cases seemed to be alive in the unfailing knack of presenting their most uncomfortable angles to our rest-seeking bodies. A man might imagine for a moment that he had found a position of ease, but always discovered quickly that some unyielding point was impinging on muscle or bone. The first night aboard the boat was one of acute discomfort for us all, and we were heartily glad when the dawn came and we could set about the preparation of a hot breakfast. This record of the voyage to South Georgia is based upon scanty notes made day by day. The notes dealt usually with the bare facts of distances, positions, and weather, but our memories retained the incidents of the passing days in a period never to be forgotten. By running north for the first two days I hoped to get warmer weather and also to avoid lines of pack that might be extending beyond the main body. We needed all the advantage that we could obtain from the higher latitude for sailing on the great circle, but we had to be cautious regarding possible ice-streams. Cramped in our narrow quarters and continually wet by the spray, we suffered severely from cold throughout the journey. We fought the seas and the winds and at the same time had a daily struggle to keep ourselves alive. At times we were in dire peril. Generally we were upheld by the knowledge that we were making progress towards the land where we would be, but there were days and nights when we lay hove to, drifting across the storm-whitened seas and watching with eyes interested rather than apprehensive the uprearing masses of water, flung to and fro by Nature in the pride of her strength. Deep seemed the valleys when we lay between the reeling seas. High were the hills when we perched momentarily on the tops of giant combers. Nearly always there were gales. So small was our boat and so great were the seas that often our sail flapped idly in the calm between the crests of two waves. Then we would climb the next slope and catch the full fury of the gale where the wool-like whiteness of the breaking water surged around us. We had our moments of laughter-rare, it is true, but hearty enough. Even when cracked lips and swollen mouths checked the outward and visible signs of amusement we could see a joke of the primitive kind. Man's sense of

humour is always most easily stirred by the petty misfortunes of his neighbours, and I shall never forget Worsley's efforts on one occasion to place the hot aluminium stand on top of the Primus stove after it had fallen off in an extra heavy roll. With his frost-bitten fingers he picked it up, dropped it, picked it up again, and toyed with it gingerly as though it were some fragile article of lady's wear. We laughed, or rather gurgled with laughter. The wind came up strong and worked into a gale from the north-west on the third day out. We stood away to the east. The increasing seas discovered the weaknesses of our decking. The continuous blows shifted the box-lids and sledge-runners so that the canvas sagged down and accumulated water. Then icy trickles, distinct from the driving sprays, poured fore and aft into the boat. The nails that the carpenter had extracted from cases at Elephant Island and used to fasten down the battens were too short to make firm the decking. We did what we could to secure it, but our means were very limited, and the water continued to enter the boat at a dozen points. Much baling was necessary, and nothing that we could do prevented our gear from becoming sodden. The searching runnels from the canvas were really more unpleasant than the sudden definite douches of the sprays. Lying under the thwarts during watches below, we tried vainly to avoid them. There were no dry places in the boat, and at last we simply covered our heads with our Burberrys and endured the all-pervading water. The baling was work for the watch. Real rest we had none. The perpetual motion of the boat made repose impossible; we were cold, sore, and anxious. We moved on hands and knees in the semi-darkness of the day under the decking. The darkness was complete by 6 p.m., and not until 7 a.m. of the following day could we see one another under the thwarts. We had a few scraps of candle, and they were preserved carefully in order that we might have light at meal-times. There was one fairly dry spot in the boat, under the solid original decking at the bows, and we managed to protect some of our biscuit from the salt water; but I do not think any of us got the taste of salt out of our mouths during the voyage.

The difficulty of movement in the boat would have had its humorous side if it had not involved us in so many aches and pains. We had to crawl under the thwarts in order to move along the boat, and our knees suffered considerably. When watch turned out it was necessary for me to direct each man by name when and where to move, since if all hands had crawled about at the same time the result would have been dire confusion and many bruises. Then there was the trim of the boat to be considered. The order of the watch was four hours on and four hours off, three men to the watch. One man had the tiller-ropes, the second man attended to the sail, and the third baled for all he was worth. Sometimes when the water in the boat had been reduced to reasonable proportions, our pump could be used. This pump, which Hurley had made from the Flinder's bar case of our ship's standard compass, was quite effective, though its capacity was not large. The man who was attending the sail could pump into the big outer cooker, which was lifted and emptied overboard when filled. We had a device by which the water could go direct from the pump into the sea through a hole in the gunwale, but this hole had to be blocked at an early stage of the voyage, since we found that it admitted water when the boat rolled. While a new watch was shivering in the wind and spray, the men who had been relieved groped hurriedly among the soaked sleeping-bags and tried to steal a little of the warmth created by the last occupants; but it was not always possible for us to find even this comfort when we went off watch. The boulders that we had taken aboard for ballast had to be shifted continually in order to trim the boat and give access to the pump, which became choked with hairs from the moulting sleeping-bags and finneskoe. The four reindeer-skin sleeping-bags shed their hair freely owing to the continuous wetting, and soon became quite bald in appearance. The moving of the boulders was weary and painful work. We came to know every one of the stones by sight and touch, and I have vivid memories of their angular peculiarities even to-day. They might have been of considerable interest as geological specimens to a scientific man under happier conditions. As ballast they were useful. As weights to be moved about in cramped quarters they were simply appalling. They spared no portion of our poor bodies. Another of our troubles, worth mention here, was the chafing of our legs by our wet clothes, which had not been changed now for seven months. The insides of our thighs were rubbed raw, and the one tube of Hazeline cream in our medicine-chest did not go far in alleviating our pain, which was increased by the bite of the salt water. We thought at the time that we never slept. The fact was that we would doze off uncomfortably, to be aroused quickly by some new ache or another call to effort. My own share of the general unpleasantness was accentuated by a finely developed bout of sciatica. I had become possessor of this originally on the floe several months earlier. Our meals were regular in spite of the gales. Attention to this point was essential, since the conditions of the voyage made increasing calls upon our vitality. Breakfast, at 8 a.m., consisted of a pannikin of hot hoosh made from Bovril sledging ration, two biscuits, and

some lumps of sugar. Lunch came at 1 p.m., and comprised Bovril sledging ration, eaten raw, and a pannikin of hot milk for each man. Tea, at 5 p.m., had the same menu. Then during the night we had a hot drink, generally of milk. The meals were the bright beacons in those cold and stormy days. The glow of warmth and comfort produced by the food and drink made optimists of us all. We had two tins of Virol, which we were keeping for an emergency; but, finding ourselves in need of an oil-lamp to eke out our supply of candles, we emptied one of the tins in the manner that most appealed to us, and fitted it with a wick made by shredding a bit of canvas. When this lamp was filled with oil it gave a certain amount of light, though it was easily blown out, and was of great assistance to us at night. We were fairly well off as regarded fuel, since we had $6\frac{1}{2}$ gallons of petroleum. A severe south-westerly gale on the fourth day out forced us to heave to. I would have liked to have run before the wind, but the sea was very high and the James Caird was in danger of broaching to and swamping. The delay was vexatious, since up to that time we had been making sixty or seventy miles a day, good going with our limited sail area. We hove to under double-reefed mainsail and our little jigger, and waited for the gale to blow itself out. During that afternoon we saw bits of wreckage, the remains probably of some unfortunate vessel that had failed to weather the strong gales south of Cape Horn. The weather conditions did not improve, and on the fifth day out the gale was so fierce that we were compelled to take in the double-reefed mainsail and hoist our small jib instead. We put out a sea-anchor to keep the James Caird's head up to the sea. This anchor consisted of a triangular canvas bag fastened to the end of the painter and allowed to stream out from the bows. The boat was high enough to catch the wind, and, as she drifted to leeward, the drag of the anchor kept her head to windward. Thus our boat took most of the seas more or less end on. Even then the crests of the waves often would curl right over us and we shipped a great deal of water, which necessitated unceasing baling and pumping. Looking out abeam, we would see a hollow like a tunnel formed as the crest of a big wave toppled over on to the swelling body of water. A thousand times it appeared as though the James Caird must be engulfed; but the boat lived. The south-westerly gale had its birthplace above the Antarctic Continent, and its freezing breath lowered the temperature far towards zero. The sprays froze upon the boat and gave bows, sides, and decking a heavy coat of mail. This accumulation of ice reduced the buoyancy of the boat, and to that extent was an added peril; but it possessed a notable advantage from one point of view.

The water ceased to drop and trickle from the canvas, and the spray came in solely at the well in the after part of the boat. We could not allow the load of ice to grow beyond a certain point, and in turns we crawled about the decking forward, chipping and picking at it with the available tools.

When daylight came on the morning of the sixth day out we saw and felt that the *James Caird* had lost her resiliency. She was not rising to the oncoming seas. The weight of the ice that had formed in her and upon her during the night was having its effect, and she was becoming more like a log than a boat. The situation called for immediate action. We first broke away the spare oars, which were encased in ice and frozen to the sides of the boat, and threw them overboard. We retained two oars for use when we got inshore. Two of the fur sleeping-bags went over the side; they were thoroughly wet, weighing probably 40 lbs. each, and they had frozen stiff during the night. Three men constituted the watch below, and when a man went down it was better to turn into the wet bag just vacated by another man than to thaw out a frozen bag with the heat of his unfortunate body. We now had four bags, three in use and one for emergency use in case a member of the party should break down permanently. The reduction of weight relieved the boat to some extent, and vigorous chipping and scraping did more. We had to be very careful not to put axe or knife through the frozen canvas of the decking as we crawled over it, but gradually we got rid of a lot of ice. The *James Caird* lifted to the endless waves as though she lived again.

About 11 a.m. the boat suddenly fell off into the trough of the sea. The painter had parted and the sea-anchor had gone. This was serious. The *James Caird* went away to leeward, and we had no chance at all of recovering the anchor and our valuable rope, which had been our only means of keeping the boat's head up to the seas without the risk of hoisting sail in a gale. Now we had to set the sail and trust to its holding. While the *James Caird* rolled heavily in the trough, we beat the frozen canvas until the bulk of the ice had cracked off it and then hoisted it. The frozen gear worked protestingly, but after a struggle our little craft came up to the wind again, and we breathed more freely. Skin frost-bites were troubling us, and we had developed large blisters on our fingers and hands. I shall always carry the scar of one of these frost-bites on my left hand, which became badly inflamed after the skin had burst and the cold had bitten deeply.

We held the boat up to the gale during that day, enduring as best we could discomforts that amounted to pain. The boat tossed interminably on the big waves under grey,

threatening skies. Our thoughts did not embrace much more than the necessities of the hour. Every surge of the sea was an enemy to be watched and circumvented. We ate our scanty meals, treated our frost-bites, and hoped for the improved conditions that the morrow might bring. Night fell early, and in the lagging hours of darkness we were cheered by a change for the better in the weather. The wind dropped, the snow-squalls became less frequent, and the sea moderated. When the morning of the seventh day dawned there was not much wind. We shook the reef out of the sail and laid our course once more for South Georgia. The sun came out bright and clear, and presently Worsley got a snap for longitude. We hoped that the sky would remain clear until noon, so that we could get the latitude. We had been six days out without an observation, and our dead reckoning naturally was uncertain. The boat must have presented a strange appearance that morning. All hands basked in the sun. We hung our sleeping-bags to the mast and spread our socks and other gear all over the deck. Some of the ice had melted off the James *Caird* in the early morning after the gale began to slacken; and dry patches were appearing in the decking. Porpoises came blowing round the boat, and Cape pigeons wheeled and swooped within a few feet of us. These little black-and-white birds have an air of friendliness that is not possessed by the great circling albatross. They had looked grey against the swaying sea during the storm as they darted about over our heads and uttered their plaintive cries. The albatrosses, of the black or sooty variety, had watched with hard, bright eyes, and seemed to have a quite impersonal interest in our struggle to keep afloat amid the battering seas. In addition to the Cape pigeons an occasional stormy petrel flashed overhead. Then there was a small bird, unknown to me, that appeared always to be in a fussy, bustling state, guite out of keeping with the surroundings. It irritated me. It had practically no tail, and it flitted about vaguely as though in search of the lost member. I used to find myself wishing it would find its tail and have done with the silly flutterina.

We revelled in the warmth of the sun that day. Life was not so bad, after all. We felt we were well on our way. Our gear was drying, and we could have a hot meal in comparative comfort. The swell was still heavy, but it was not breaking and the boat rode easily. At noon Worsley balanced himself on the gunwale and clung with one hand to the stay of the mainmast while he got a snap of the sun. The result was more than encouraging. We had

done over 380 miles and were getting on for half-way to South Georgia. It looked as though we were going to get through.

The wind freshened to a good stiff breeze during the afternoon, and the James Caird made satisfactory progress. I had not realized until the sunlight came how small our boat really was. There was some influence in the light and warmth, some hint of happier days, that made us revive memories of other voyages, when we had stout decks beneath our feet, unlimited food at our command, and pleasant cabins for our ease. Now we clung to a battered little boat, "alone, alone—all, all alone; alone on a wide, wide sea." So low in the water were we that each succeeding swell cut off our view of the sky-line. We were a tiny speck in the vast vista of the sea-the ocean that is open to all and merciful to none, that threatens even when it seems to yield, and that is pitiless always to weakness. For a moment the consciousness of the forces arrayed against us would be almost overwhelming. Then hope and confidence would rise again as our boat rose to a wave and tossed aside the crest in a sparkling shower like the play of prismatic colours at the foot of a waterfall. My double-barrelled gun and some cartridges had been stowed aboard the boat as an emergency precaution against a shortage of food, but we were not disposed to destroy our little neighbours, the Cape pigeons, even for the sake of fresh meat. We might have shot an albatross, but the wandering king of the ocean aroused in us something of the feeling that inspired, too late, the Ancient Mariner. So the gun remained among the stores and sleeping-bags in the narrow quarters beneath our leaking deck, and the birds followed us unmolested.

The eighth, ninth, and tenth days of the voyage had few features worthy of special note. The wind blew hard during those days, and the strain of navigating the boat was unceasing, but always we made some advance towards our goal. No bergs showed on our horizon, and we knew that we were clear of the ice-fields. Each day brought its little round of troubles, but also compensation in the form of food and growing hope. We felt that we were going to succeed. The odds against us had been great, but we were winning through. We still suffered severely from the cold, for, though the temperature was rising, our vitality was declining owing to shortage of food, exposure, and the necessity of maintaining our cramped positions day and night. I found that it was now absolutely necessary to prepare hot milk for all hands during the night, in order to sustain life till dawn. This meant lighting the Primus lamp in the darkness and involved an increased drain on our small store of matches. It was the rule that one match must serve when the Primus was being lit. We had no lamp for the compass and during the early days of the voyage we would strike a match when the steersman wanted to see the course at night; but later the necessity for strict economy impressed itself upon us, and the practice of striking matches at night was stopped. We had one water-tight tin of matches. I had stowed away in a pocket, in readiness for a sunny day, a lens from one of the telescopes, but this was of no use during the voyage. The sun seldom shone upon us. The glass of the compass got broken one night, and we contrived to mend it with adhesive tape from the medicine-chest. One of the memories that comes to me from those days is of Crean singing at the tiller. He always sang while he was steering, and nobody ever discovered what the song was. It was devoid of tune and as monotonous as the chanting of a Buddhist monk at his prayers; yet somehow it was cheerful. In moments of inspiration Crean would attempt "The Wearing of the Green."

On the tenth night Worsley could not straighten his body after his spell at the tiller. He was thoroughly cramped, and we had to drag him beneath the decking and massage him before he could unbend himself and get into a sleeping-bag. A hard north-westerly gale came up on the eleventh day (May 5) and shifted to the south-west in the late afternoon. The sky was overcast and occasional snow-squalls added to the discomfort produced by a tremendous cross-sea-the worst, I thought, that we had experienced. At midnight I was at the tiller and suddenly noticed a line of clear sky between the south and south-west. I called to the other men that the sky was clearing, and then a moment later I realized that what I had seen was not a rift in the clouds but the white crest of an enormous wave. During twenty-six years' experience of the ocean in all its moods I had not encountered a wave so gigantic. It was a mighty upheaval of the ocean, a thing guite apart from the big white-capped seas that had been our tireless enemies for many days. I shouted, "For God's sake, hold on! It's got us!" Then came a moment of suspense that seemed drawn out into hours. White surged the foam of the breaking sea around us. We felt our boat lifted and flung forward like a cork in breaking surf. We were in a seething chaos of tortured water; but somehow the boat lived through it, half-full of water, sagging to the dead weight and shuddering under the blow. We baled with the energy of men fighting for life, flinging the water over the sides with every receptacle that came to our hands, and after ten minutes of uncertainty we felt the boat renew her life beneath us. She floated

again and ceased to lurch drunkenly as though dazed by the attack of the sea. Earnestly we hoped that never again would we encounter such a wave.



The conditions in the boat, uncomfortable before, had been made worse by the deluge of water. All our gear was thoroughly wet again. Our cooking-stove had been floating about in the bottom of the boat, and portions of our last hoosh seemed to have permeated everything. Not until 3 a.m., when we were all chilled almost to the limit of endurance, did we manage to get the stove alight and make ourselves hot drinks. The carpenter was suffering particularly, but he showed grit and spirit. Vincent had for the past week ceased to be an active member of the crew, and I could not easily account for his collapse. Physically he was one of the strongest men in the boat. He was a young man, he had served on North Sea trawlers, and he should have been able to bear hardships better than McCarthy, who, not so strong, was always happy.

The weather was better on the following day (May 6), and we got a glimpse of the sun. Worsley's observation showed that we were not more than a hundred miles from the northwest corner of South Georgia. Two more days with a favourable wind and we would sight the promised land. I hoped that there would be no delay, for our supply of water was running very low. The hot drink at night was essential, but I decided that the daily allowance of water must be cut down to half a pint per man. The lumps of ice we had taken aboard had gone long ago. We were dependent upon the water we had brought from Elephant Island, and our thirst was increased by the fact that we were now using the brackish water in the breaker that had been slightly stove in in the surf when the boat was being loaded. Some sea-water had entered at that time. Thirst took possession of us. I dared not permit the allowance of water to be increased since an unfavourable wind might drive us away from the island and lengthen our voyage by many days. Lack of water is always the most severe privation that men can be condemned to endure, and we found, as during our earlier boat voyage, that the salt water in our clothing and the salt spray that lashed our faces made our thirst grow quickly to a burning pain. I had to be very firm in refusing to allow any one to anticipate the morrow's allowance, which I was sometimes begged to do. We did the necessary work dully and hoped for the land. I had altered the course to the east so as to make sure of our striking the island, which would have been impossible to regain if we had run past the northern end. The course was laid on our scrap of chart for a point some thirty miles down the coast. That day and the following day passed for us in a sort of nightmare. Our mouths were dry and our tongues were swollen. The wind was still strong and the heavy sea forced us to navigate carefully, but any thought of our peril from the waves was buried beneath the consciousness of our raging thirst. The bright moments were those when we each received our one mug of hot milk during the long, bitter watches of the night. Things were bad for us in those days, but the end was coming. The morning of May 8 broke thick and stormy, with squalls from the north-west. We searched the waters ahead for a sign of land, and though we could see nothing more than had met our eyes for many days, we were cheered by a sense that the goal was near at hand. About ten o'clock that morning we passed a little bit of kelp, a glad signal of the proximity of land. An hour later we saw two shags sitting on a big mass of kelp, and knew then that we must be within ten or fifteen miles of the shore. These birds are as sure an indication of the proximity of land as a lighthouse is, for they never venture far to sea. We gazed ahead with increasing eagerness, and at 12.30 p.m., through a rift in the clouds, McCarthy caught a glimpse of the black cliffs of South Georgia, just fourteen days after our departure from Elephant Island. It was a glad moment. Thirst-ridden, chilled, and weak as we were, happiness irradiated us. The job was nearly done. We stood in towards the shore to look for a landing-place, and presently we could see the green tussock-grass on the ledges above the surf-beaten rocks. Ahead of us and to the south, blind rollers showed the presence of uncharted reefs along the coast. Here and

there the hungry rocks were close to the surface, and over them the great waves broke, swirling viciously and spouting thirty and forty feet into the air. The rocky coast appeared to descend sheer to the sea. Our need of water and rest was well-nigh desperate, but to have attempted a landing at that time would have been suicidal. Night was drawing near, and the weather indications were not favourable. There was nothing for it but to haul off till the following morning, so we stood away on the starboard tack until we had made what appeared to be a safe offing. Then we have to in the high westerly swell. The hours passed slowly as we waited the dawn, which would herald, we fondly hoped, the last stage of our journey. Our thirst was a torment and we could scarcely touch our food; the cold seemed to strike right through our weakened bodies. At 5 a.m. the wind shifted to the north-west and quickly increased to one of the worst hurricanes any of us had ever experienced. A great cross-sea was running and the wind simply shrieked as it tore the tops off the waves and converted the whole seascape into a haze of driving spray. Down into valleys, up to tossing heights, straining until her seams opened, swung our little boat, brave still but labouring heavily. We knew that the wind and set of the sea was driving us ashore, but we could do nothing. The dawn showed us a storm-torn ocean, and the morning passed without bringing us a sight of the land; but at 1 p.m., through a rift in the flying mists, we got a glimpse of the huge crags of the island and realized that our position had become desperate. We were on a dead lee shore, and we could gauge our approach to the unseen cliffs by the roar of the breakers against the sheer walls of rock. I ordered the double-reefed mainsail to be set in the hope that we might claw off, and this attempt increased the strain upon the boat. The James Caird was bumping heavily, and the water was pouring in everywhere. Our thirst was forgotten in the realization of our imminent danger, as we baled unceasingly, and adjusted our weights from time to time; occasional glimpses showed that the shore was nearer. I knew that Annewkow Island lay to the south of us, but our small and badly marked chart showed uncertain reefs in the passage between the island and the mainland, and I dared not trust it, though as a last resort we could try to lie under the lee of the island. The afternoon wore away as we edged down the coast, with the thunder of the breakers in our ears. The approach of evening found us still some distance from Annewkow Island, and, dimly in the twilight, we could see a snowcapped mountain looming above us. The chance of surviving the night, with the driving gale and the implacable sea forcing us on to the lee shore, seemed small. I think most of

us had a feeling that the end was very near. Just after 6 p.m., in the dark, as the boat was in the yeasty backwash from the seas flung from this iron-bound coast, then, just when things looked their worst, they changed for the best. I have marvelled often at the thin line that divides success from failure and the sudden turn that leads from apparently certain disaster to comparative safety. The wind suddenly shifted, and we were free once more to make an offing. Almost as soon as the gale eased, the pin that locked the mast to the thwart fell out. It must have been on the point of doing this throughout the hurricane, and if it had gone nothing could have saved us; the mast would have snapped like a carrot. Our backstays had carried away once before when iced up and were not too strongly fastened now. We were thankful indeed for the mercy that had held that pin in its place throughout the hurricane.

We stood off shore again, tired almost to the point of apathy. Our water had long been finished. The last was about a pint of hairy liquid, which we strained through a bit of gauze from the medicine-chest. The pangs of thirst attacked us with redoubled intensity, and I felt that we must make a landing on the following day at almost any hazard. The night wore on. We were very tired. We longed for day. When at last the dawn came on the morning of May 10 there was practically no wind, but a high cross-sea was running. We made slow progress towards the shore. About 8 a.m. the wind backed to the north-west and threatened another blow. We had sighted in the meantime a big indentation which I thought must be King Haakon Bay, and I decided that we must land there. We set the bows of the boat towards the bay and ran before the freshening gale. Soon we had angry reefs on either side. Great glaciers came down to the sea and offered no landing-place. The sea spouted on the reefs and thundered against the shore. About noon we sighted a line of jagged reef, like blackened teeth, that seemed to bar the entrance to the bay. Inside, comparatively smooth water stretched eight or nine miles to the head of the bay. A gap in the reef appeared, and we made for it. But the fates had another rebuff for us. The wind shifted and blew from the east right out of the bay. We could see the way through the reef, but we could not approach it directly. That afternoon we bore up, tacking five times in the strong wind. The last tack enabled us to get through, and at last we were in the wide mouth of the bay. Dusk was approaching. A small cove, with a boulder-strewn beach guarded by a reef, made a break in the cliffs on the south side of the bay, and we turned in that direction. I stood in the bows directing the steering as we ran through the kelp and

made the passage of the reef. The entrance was so narrow that we had to take in the oars, and the swell was piling itself right over the reef into the cove; but in a minute or two we were inside, and in the gathering darkness the *James Caird* ran in on a swell and touched the beach. I sprang ashore with the short painter and held on when the boat went out with the backward surge. When the *James Caird* came in again three of the men got ashore, and they held the painter while I climbed some rocks with another line. A slip on the wet rocks twenty feet up nearly closed my part of the story just at the moment when we were achieving safety. A jagged piece of rock held me and at the same time bruised me sorely. However, I made fast the line, and in a few minutes we were all safe on the beach, with the boat floating in the surging water just off the shore. We heard a gurgling sound that was sweet music in our ears, and, peering around, found a stream of fresh water almost at our feet. A moment later we were down on our knees drinking the pure, ice-cold water in long draughts that put new life into us. It was a splendid moment.



The next thing was to get the stores and ballast out of the boat, in order that we might secure her for the night. We carried the stores and gear above high-water mark and threw out the bags of sand and the boulders that we knew so well. Then we attempted to pull the empty boat up the beach, and discovered by this effort how weak we had become. Our united strength was not sufficient to get the *James Caird* clear of the water. Time after time we pulled together, but without avail. I saw that it would be necessary to have food and rest before we beached the boat. We made fast a line to a heavy boulder and set a watch

to fend the *James Caird* off the rocks of the beach. Then I sent Crean round to the left side of the cove, about thirty yards away, where I had noticed a little cave as we were running in. He could not see much in the darkness, but reported that the place certainly promised some shelter. We carried the sleeping-bags round and found a mere hollow in the rockface, with a shingle floor sloping at a steep angle to the sea. There we prepared a hot meal, and when the food was finished I ordered the men to turn in. The time was now about 8 p.m., and I took the first watch beside the *James Caird*, which was still afloat in the tossing water just off the beach.

Fending the James Caird off the rocks in the darkness was awkward work. The boat would have bumped dangerously if allowed to ride in with the waves that drove into the cove. I found a flat rock for my feet, which were in a bad way owing to cold, wetness, and lack of exercise in the boat, and during the next few hours I laboured to keep the James Caird clear of the beach. Occasionally I had to rush into the seething water. Then, as a wave receded, I let the boat out on the alpine rope so as to avoid a sudden jerk. The heavy painter had been lost when the sea-anchor went adrift. The James Caird could be seen but dimly in the cove, where the high black cliffs made the darkness almost complete, and the strain upon one's attention was great. After several hours had passed I found that my desire for sleep was becoming irresistible, and at 1 a.m. I called Crean. I could hear him groaning as he stumbled over the sharp rocks on his way down the beach. While he was taking charge of the *James Caird* she got adrift, and we had some anxious moments. Fortunately, she went across towards the cave and we secured her, unharmed. The loss or destruction of the boat at this stage would have been a very serious matter, since we probably would have found it impossible to leave the cove except by sea. The cliffs and glaciers around offered no practicable path towards the head of the bay. I arranged for one-hour watches during the remainder of the night and then took Crean's place among the sleeping men and got some sleep before the dawn came.

The sea went down in the early hours of the morning (May 11), and after sunrise we were able to set about getting the boat ashore, first bracing ourselves for the task with another meal. We were all weak still. We cut off the topsides and took out all the movable gear. Then we waited for Byron's "great ninth wave," and when it lifted the *James Caird* in we held her and, by dint of great exertion, worked her round broadside to the sea. Inch by inch we dragged her up until we reached the fringe of the tussock-grass and knew that the boat

was above high-water mark. The rise of the tide was about five feet, and at spring tide the water must have reached almost to the edge of the tussock-grass. The completion of this job removed our immediate anxieties, and we were free to examine our surroundings and plan the next move. The day was bright and clear.

King Haakon Bay is an eight-mile sound penetrating the coast of South Georgia in an easterly direction. We had noticed that the northern and southern sides of the sound were formed by steep mountain-ranges, their flanks furrowed by mighty glaciers, the outlets of the great ice-sheet of the interior. It was obvious that these glaciers and the precipitous slopes of the mountains barred our way inland from the cove. We must sail to the head of the sound. Swirling clouds and mist-wreaths had obscured our view of the sound when we were entering, but glimpses of snow-slopes had given us hope that an overland journey could be begun from that point. A few patches of very rough, tussocky land, dotted with little tarns, lay between the glaciers along the foot of the mountains, which were heavily scarred with scree-slopes. Several magnificent peaks and crags gazed out across their snowy domains to the sparkling waters of the sound.

Our cove lay a little inside the southern headland of King Haakon Bay. A narrow break in the cliffs, which were about a hundred feet high at this point, formed the entrance to the cove. The cliffs continued inside the cove on each side and merged into a hill which descended at a steep slope to the boulder beach. The slope, which carried tussock-grass, was not continuous. It eased at two points into little peaty swamp terraces dotted with frozen pools and drained by two small streams. Our cave was a recess in the cliff on the left-hand end of the beach. The rocky face of the cliff was undercut at this point, and the shingle thrown up by the waves formed a steep slope, which we reduced to about one in six by scraping the stones away from the inside. Later we strewed the rough floor with the dead, nearly dry underleaves of the tussock-grass, so as to form a slightly soft bed for our sleeping-bags. Water had trickled down the face of the cliff and formed long icicles, which hung down in front of the cave to the length of about fifteen feet. These icicles provided shelter, and when we had spread our sails below them, with the assistance of oars, we had quarters that, in the circumstances, had to be regarded as reasonably comfortable. The camp at least was dry, and we moved our gear there with confidence. We built a fireplace and arranged our sleeping-bags and blankets around it. The cave was about 8 ft. deep and 12 ft. wide at the entrance.

While the camp was being arranged Crean and I climbed the tussock slope behind the beach and reached the top of a headland overlooking the sound. There we found the nests of albatrosses, and, much to our delight, the nests contained young birds. The fledgelings were fat and lusty, and we had no hesitation about deciding that they were destined to die at an early age. Our most pressing anxiety at this stage was a shortage of fuel for the cooker. We had rations for ten more days, and we knew now that we could get birds for food; but if we were to have hot meals we must secure fuel. The store of petroleum carried in the boat was running very low, and it seemed necessary to keep some quantity for use on the overland journey that lay ahead of us. A sea-elephant or a seal would have provided fuel as well as food, but we could see none in the neighbourhood. During the morning we started a fire in the cave with wood from the top-sides of the boat, and though the dense smoke from the damp sticks inflamed our tired eyes, the warmth and the prospect of hot food were ample compensation. Crean was cook that day, and I suggested to him that he should wear his goggles, which he happened to have brought with him. The goggles helped him a great deal as he bent over the fire and tended the stew. And what a stew it was! The young albatrosses weighed about fourteen pounds each fresh killed, and we estimated that they weighed at least six pounds each when cleaned and dressed for the pot. Four birds went into the pot for six men, with a Bovril ration for thickening. The flesh was white and succulent, and the bones, not fully formed, almost melted in our mouths. That was a memorable meal. When we had eaten our fill, we dried our tobacco in the embers of the fire and smoked contentedly. We made an attempt to dry our clothes, which were soaked with salt water, but did not meet with much success. We could not afford to have a fire except for cooking purposes until blubber or driftwood had come our way.

The final stage of the journey had still to be attempted. I realized that the condition of the party generally, and particularly of McNeish and Vincent, would prevent us putting to sea again except under pressure of dire necessity. Our boat, moreover, had been weakened by the cutting away of the topsides, and I doubted if we could weather the island. We were still 150 miles away from Stromness whaling-station by sea. The alternative was to attempt the crossing of the island. If we could not get over, then we must try to secure enough food and fuel to keep us alive through the winter, but this possibility was scarcely thinkable. Over on Elephant Island twenty-two men were waiting for the relief that we alone could

secure for them. Their plight was worse than ours. We must push on somehow. Several days must elapse before our strength would be sufficiently recovered to allow us to row or sail the last nine miles up to the head of the bay. In the meantime we could make what preparations were possible and dry our clothes by taking advantage of every scrap of heat from the fires we lit for the cooking of our meals. We turned in early that night, and I remember that I dreamed of the great wave and aroused my companions with a shout of warning as I saw with half-awakened eyes the towering cliff on the opposite side of the cove. Shortly before midnight a gale sprang up suddenly from the north-east with rain and sleet showers. It brought quantities of glacier-ice into the cove, and by 2 a.m. (May 12) our little harbour was filled with ice, which surged to and fro in the swell and pushed its way on to the beach. We had solid rock beneath our feet and could watch without anxiety. When daylight came rain was falling heavily, and the temperature was the highest we had experienced for many months. The icicles overhanging our cave were melting down in streams and we had to move smartly when passing in and out lest we should be struck by falling lumps. A fragment weighing fifteen or twenty pounds crashed down while we were having breakfast. We found that a big hole had been burned in the bottom of Worsley's reindeer sleeping-bag during the night. Worsley had been awakened by a burning sensation in his feet, and had asked the men near him if his bag was all right; they looked and could see nothing wrong. We were all superficially frostbitten about the feet, and this condition caused the extremities to burn painfully, while at the same time sensation was lost in the skin. Worsley thought that the uncomfortable heat of his feet was due to the frost-bites, and he stayed in his bag and presently went to sleep again. He discovered when he turned out in the morning that the tussock-grass which we had laid on the floor of the cave had smouldered outwards from the fire and had actually burned a large hole in the bag beneath his feet. Fortunately, his feet were not harmed.

Our party spent a quiet day, attending to clothing and gear, checking stores, eating and resting. Some more of the young albatrosses made a noble end in our pot. The birds were nesting on a small plateau above the right-hand end of our beach. We had previously discovered that when we were landing from the boat on the night of May 10 we had lost the rudder. The *James Caird* had been bumping heavily astern as we were scrambling ashore, and evidently the rudder was then knocked off. A careful search of the beach and the rocks within our reach failed to reveal the missing article. This was a serious loss, even

if the voyage to the head of the sound could be made in good weather. At dusk the ice in the cove was rearing and crashing on the beach. It had forced up a ridge of stones close to where the *James Caird* lay at the edge of the tussock-grass. Some pieces of ice were driven right up to the canvas wall at the front of our cave. Fragments lodged within two feet of Vincent, who had the lowest sleeping-place, and within four feet of our fire. Crean and McCarthy had brought down six more of the young albatrosses in the afternoon, so we were well supplied with fresh food. The air temperature that night probably was not lower than 38° or 40° Fahr., and we were rendered uncomfortable in our cramped sleeping quarters by the unaccustomed warmth. Our feelings towards our neighbours underwent a change. When the temperature was below 20° Fahr, we could not get too close to one another—every man wanted to cuddle against his neighbour; but let the temperature rise a few degrees and the warmth of another man's body ceased to be a blessing. The ice and the waves had a voice of menace that night, but I heard it only in my dreams.

The bay was still filled with ice on the morning of Saturday, May 13, but the tide took it all away in the afternoon. Then a strange thing happened. The rudder, with all the broad Atlantic to sail in and the coasts of two continents to search for a resting-place, came bobbing back into our cove. With anxious eyes we watched it as it advanced, receded again, and then advanced once more under the capricious influence of wind and wave. Nearer and nearer it came as we waited on the shore, oars in hand, and at last we were able to seize it. Surely a remarkable salvage! The day was bright and clear; our clothes were drying and our strength was returning. Running water made a musical sound down the tussock slope and among the boulders. We carried our blankets up the hill and tried to dry them in the breeze 300 ft. above sea-level. In the afternoon we began to prepare the James Caird for the journey to the head of King Haakon Bay. A noon observation on this day gave our latitude as 54° 10′ 47′′ S., but according to the German chart the position should have been 54° 12' S. Probably Worsley's observation was the more accurate. We were able to keep the fire alight until we went to sleep that night, for while climbing the rocks above the cove I had seen at the foot of a cliff a broken spar, which had been thrown up by the waves. We could reach this spar by climbing down the cliff, and with a reserve supply of fuel thus in sight we could afford to burn the fragments of the James Caird's topsides more freely.

During the morning of this day (May 13) Worsley and I tramped across the hills in a northeasterly direction with the object of getting a view of the sound and possibly gathering some information that would be useful to us in the next stage of our journey. It was exhausting work, but after covering about 2¹/₂ miles in two hours, we were able to look east, up the bay. We could not see very much of the country that we would have to cross in order to reach the whaling-station on the other side of the island. We had passed several brooks and frozen tarns, and at a point where we had to take to the beach on the shore of the sound we found some wreckage—an 18-ft. pine-spar (probably part of a ship's topmast), several pieces of timber, and a little model of a ship's hull, evidently a child's toy. We wondered what tragedy that pitiful little plaything indicated. We encountered also some gentoo penguins and a young sea-elephant, which Worsley killed. When we got back to the cave at 3 p.m., tired, hungry, but rather pleased with ourselves, we found a splendid meal of stewed albatross chicken waiting for us. We had carried a quantity of blubber and the sea-elephant's liver in our blouses, and we produced our treasures as a surprise for the men. Rough climbing on the way back to camp had nearly persuaded us to throw the stuff away, but we had held on (regardless of the condition of our already sorely tried clothing), and had our reward at the camp. The long bay had been a magnificent sight, even to eyes that had dwelt on grandeur long enough and were hungry for the simple, familiar things of everyday life. Its green-blue waters were being beaten to fury by the north-westerly gale. The mountains, "stern peaks that dared the stars," peered through the mists, and between them huge glaciers poured down from the great ice-slopes and fields that lay behind. We counted twelve glaciers and heard every few minutes the reverberating roar caused by masses of ice calving from the parent streams.

On May 14 we made our preparations for an early start on the following day if the weather held fair. We expected to be able to pick up the remains of the sea-elephant on our way up the sound. All hands were recovering from the chafing caused by our wet clothes during the boat journey. The insides of our legs had suffered severely, and for some time after landing in the cove we found movement extremely uncomfortable. We paid our last visit to the nests of the albatrosses, which were situated on a little undulating plateau above the cave amid tussocks, snow-patches, and little frozen tarns. Each nest consisted of a mound over a foot high of tussock-grass, roots, and a little earth. The albatross lays one egg and very rarely two. The chicks, which are hatched in January, are fed on the nest by the parent birds for almost seven months before they take to the sea and fend for themselves. Up to four months of age the chicks are beautiful white masses of downy fluff, but when we arrived on the scene their plumage was almost complete. Very often one of the parent birds was on guard near the nest. We did not enjoy attacking these birds, but our hunger knew no law. They tasted so very good and assisted our recuperation to such an extent that each time we killed one of them we felt a little less remorseful.

May 15 was a great day. We made our hoosh at 7.30 a.m. Then we loaded up the boat and gave her a flying launch down the steep beach into the surf. Heavy rain had fallen in the night and a gusty north-westerly wind was now blowing, with misty showers. The James Caird headed to the sea as if anxious to face the battle of the waves once more. We passed through the narrow mouth of the cove with the ugly rocks and waving kelp close on either side, turned to the east, and sailed merrily up the bay as the sun broke through the mists and made the tossing waters sparkle around us. We were a curiouslooking party on that bright morning, but we were feeling happy. We even broke into song, and, but for our Robinson Crusoe appearance, a casual observer might have taken us for a picnic party sailing in a Norwegian fiord or one of the beautiful sounds of the west coast of New Zealand. The wind blew fresh and strong, and a small sea broke on the coast as we advanced. The surf was sufficient to have endangered the boat if we had attempted to land where the carcass of the sea-elephant was lying, so we decided to go on to the head of the bay without risking anything, particularly as we were likely to find sea-elephants on the upper beaches. The big creatures have a habit of seeking peaceful quarters protected from the waves. We had hopes, too, of finding penguins. Our expectation as far as the sea-elephants were concerned was not at fault. We heard the roar of the bulls as we neared the head of the bay, and soon afterwards saw the great unwieldy forms of the beasts lying on a shelving beach towards the bay-head. We rounded a high, glacier-worn bluff on the north side, and at 12.30 p.m. we ran the boat ashore on a low beach of sand and pebbles, with tussock growing above high-water mark. There were hundreds of seaelephants lying about, and our anxieties with regard to food disappeared. Meat and blubber enough to feed our party for years was in sight. Our landing-place was about a mile and a half west of the north-east corner of the bay. Just east of us was a glacier-snout ending on the beach but giving a passage towards the head of the bay, except at high

water or when a very heavy surf was running. A cold, drizzling rain had begun to fall, and we provided ourselves with shelter as quickly as possible. We hauled the *James Caird* up above highwater mark and turned her over just to the lee or east side of the bluff. The spot was separated from the mountain-side by a low morainic bank, rising twenty or thirty feet above sea-level. Soon we had converted the boat into a very comfortable cabin *à la* Peggotty, turfing it round with tussocks, which we dug up with knives. One side of the *James Caird* rested on stones so as to afford a low entrance, and when we had finished she looked as though she had grown there. McCarthy entered into this work with great spirit. A sea-elephant provided us with fuel and meat, and that evening found a well-fed and fairly contented party at rest in Peggotty Camp.

Our camp, as I have said, lay on the north side of King Haakon Bay near the head. Our path towards the whaling-stations led round the seaward end of the snouted glacier on the east side of the camp and up a snow-slope that appeared to lead to a pass in the great Allardyce Range, which runs north-west and south-east and forms the main backbone of South Georgia. The range dipped opposite the bay into a well-defined pass from east to west. An ice-sheet covered most of the interior, filling the valleys and disguising the configurations of the land, which, indeed, showed only in big rocky ridges, peaks, and nunataks. When we looked up the pass from Peggotty Camp the country to the left appeared to offer two easy paths through to the opposite coast, but we knew that the island was uninhabited at that point (Possession Bay). We had to turn our attention farther east, and it was impossible from the camp to learn much of the conditions that would confront us on the overland journey. I planned to climb to the pass and then be guided by the configuration of the country in the selection of a route eastward to Stromness Bay, where the whaling-stations were established in the minor bays, Leith, Husvik, and Stromness. A range of mountains with precipitous slopes, forbidding peaks, and large glaciers lay immediately to the south of King Haakon Bay and seemed to form a continuation of the main range. Between this secondary range and the pass above our camp a great snow-upland sloped up to the inland ice-sheet and reached a rocky ridge that stretched athwart our path and seemed to bar the way. This ridge was a right-angled offshoot from the main ridge. Its chief features were four rocky peaks with spaces between that looked from a distance as though they might prove to be passes.

The weather was bad on Tuesday, May 16, and we stayed under the boat nearly all day. The quarters were cramped but gave full protection from the weather, and we regarded our little cabin with a great deal of satisfaction. Abundant meals of sea-elephant steak and liver increased our contentment. McNeish reported during the day that he had seen rats feeding on the scraps, but this interesting statement was not verified. One would not expect to find rats at such a spot, but there was a bare possibility that they had landed from a wreck and managed to survive the very rigorous conditions.

A fresh west-south-westerly breeze was blowing on the following morning (Wednesday, May 17), with misty squalls, sleet, and rain. I took Worsley with me on a pioneer journey to the west with the object of examining the country to be traversed at the beginning of the overland journey. We went round the seaward end of the snouted glacier, and after tramping about a mile over stony ground and snow-coated debris, we crossed some big ridges of scree and moraines. We found that there was good going for a sledge as far as the north-east corner of the bay, but did not get much information regarding the conditions farther on owing to the view becoming obscured by a snow-squall. We waited a quarter of an hour for the weather to clear but were forced to turn back without having seen more of the country. I had satisfied myself, however, that we could reach a good snow-slope leading apparently to the inland ice. Worsley reckoned from the chart that the distance from our camp to Husvik, on an east magnetic course, was seventeen geographical miles, but we could not expect to follow a direct line. The carpenter started making a sledge for use on the overland journey. The materials at his disposal were limited in quantity and scarcely suitable in quality.

We overhauled our gear on Thursday, May 18; and hauled our sledge to the lower edge of the snouted glacier. The vehicle proved heavy and cumbrous. We had to lift it empty over bare patches of rock along the shore, and I realized that it would be too heavy for three men to manage amid the snow-plains, glaciers, and peaks of the interior. Worsley and Crean were coming with me, and after consultation we decided to leave the sleeping-bags behind us and make the journey in very light marching order. We would take three days' provisions for each man in the form of sledging ration and biscuit. The food was to be packed in three sacks, so that each member of the party could carry his own supply. Then we were to take the Primus lamp filled with oil, the small cooker, the carpenter's adze (for use as an ice-axe), and the alpine rope, which made a total length of fifty feet when knotted. We might have to lower ourselves down steep slopes or cross crevassed glaciers. The filled lamp would provide six hot meals, which would consist of sledging ration boiled up with biscuit. There were two boxes of matches left, one full and the other partially used. We left the full box with the men at the camp and took the second box, which contained forty-eight matches. I was unfortunate as regarded footgear, since I had given away my heavy Burberry boots on the floe, and had now a comparatively light pair in poor condition. The carpenter assisted me by putting several screws in the sole of each boot with the object of providing a grip on the ice. The screws came out of the James Caird. We turned in early that night, but sleep did not come to me. My mind was busy with the task of the following day. The weather was clear and the outlook for an early start in the morning was good. We were going to leave a weak party behind us in the camp. Vincent was still in the same condition, and he could not march. McNeish was pretty well broken up. The two men were not capable of managing for themselves and McCarthy must stay to look after them. He might have a difficult task if we failed to reach the whaling station. The distance to Husvik, according to the chart, was no more than seventeen geographical miles in a direct line, but we had very scanty knowledge of the conditions of the interior. No man had ever penetrated a mile from the coast of South Georgia at any point, and the whalers I knew regarded the country as inaccessible. During that day, while we were walking to the snouted glacier, we had seen three wild duck flying towards the head of the bay from the eastward. I hoped that the presence of these birds indicated tussock-land and not snow-fields and glaciers in the interior, but the hope was not a very bright one. We turned out at 2 a.m. on the Friday morning and had our hoosh ready an hour later. The full moon was shining in a practically cloudless sky, its rays reflected gloriously from the pinnacles and crevassed ice of the adjacent glaciers. The huge peaks of the mountains stood in bold relief against the sky and threw dark shadows on the waters of the sound. There was no need for delay, and we made a start as soon as we had eaten our meal. McNeish walked about 200 yds with us; he could do no more. Then we said good-bye and he turned back to the camp. The first task was to get round the edge of the snouted glacier, which had points like fingers projecting towards the sea. The waves were reaching the points of these fingers, and we had to rush from one recess to another when the waters receded. We soon reached the east side of the glacier and noticed its great activity at this point. Changes had occurred within the preceding twenty-four hours. Some huge

pieces had broken off, and the masses of mud and stone that were being driven before the advancing ice showed movement. The glacier was like a gigantic plough driving irresistibly towards the sea.

Lying on the beach beyond the glacier was wreckage that told of many ill-fated ships. We noticed stanchions of teakwood, liberally carved, that must have came from ships of the older type; iron-bound timbers with the iron almost rusted through; battered barrels and all the usual debris of the ocean. We had difficulties and anxieties of our own, but as we passed that graveyard of the sea we thought of the many tragedies written in the wave-worn fragments of lost vessels. We did not pause, and soon we were ascending a snow-slope heading due east on the last lap of our long trail.

The snow-surface was disappointing. Two days before we had been able to move rapidly on hard, packed snow; now we sank over our ankles at each step and progress was slow. After two hours' steady climbing we were 2500 ft. above sea-level. The weather continued fine and calm, and as the ridges drew nearer and the western coast of the island spread out below, the bright moonlight showed us that the interior was broken tremendously. High peaks, impassable cliffs, steep snow-slopes, and sharply descending glaciers were prominent features in all directions, with stretches of snow-plain over laying the ice-sheet of the interior. The slope we were ascending mounted to a ridge and our course lay direct to the top. The moon, which proved a good friend during this journey, threw a long shadow at one point and told us that the surface was broken in our path. Warned in time, we avoided a huge hole capable of swallowing an army. The bay was now about three miles away, and the continued roaring of a big glacier at the head of the bay came to our ears. This glacier, which we had noticed during the stay at Peggotty Camp, seemed to be calving almost continuously.

I had hoped to get a view of the country ahead of us from the top of the slope, but as the surface became more level beneath our feet, a thick fog drifted down. The moon became obscured and produced a diffused light that was more trying than darkness, since it illuminated the fog without guiding our steps. We roped ourselves together as a precaution against holes, crevasses, and precipices, and I broke trail through the soft snow. With almost the full length of the rope between myself and the last man we were able to steer an approximately straight course, since, if I veered to the right or the left when marching into the blank wall of the fog, the last man on the rope could shout a direction. So, like a

ship with its "port," "starboard," "steady," we tramped through the fog for the next two hours.

Then, as daylight came, the fog thinned and lifted, and from an elevation of about 3000 ft. we looked down on what seemed to be a huge frozen lake with its farther shores still obscured by the fog. We halted there to eat a bit of biscuit while we discussed whether we would go down and cross the flat surface of the lake, or keep on the ridge we had already reached. I decided to go down, since the lake lay on our course. After an hour of comparatively easy travel through the snow we noticed the thin beginnings of crevasses. Soon they were increasing in size and showing fractures, indicating that we were travelling on a glacier. As the daylight brightened the fog dissipated; the lake could be seen more clearly, but still we could not discover its east shore. A little later the fog lifted completely, and then we saw that our lake stretched to the horizon, and realized suddenly that we were looking down upon the open sea on the east coast of the island. The slight pulsation at the shore showed that the sea was not even frozen; it was the bad light that had deceived us. Evidently we were at the top of Possession Bay, and the island at that point could not be more than five miles across from the head of King Haakon Bay. Our rough chart was inaccurate. There was nothing for it but to start up the glacier again. That was about seven o'clock in the morning, and by nine o'clock we had more than recovered our lost ground. We regained the ridge and then struck south-east, for the chart showed that two more bays indented the coast before Stromness. It was comforting to realize that we would have the eastern water in sight during our journey, although we could see there was no way around the shore line owing to steep cliffs and glaciers. Men lived in houses lit by electric light on the east coast. News of the outside world waited us there, and, above all, the east coast meant for us the means of rescuing the twenty-two men we had left on Elephant Island.