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These characters do not occur otherwise.

THREE VOYAGES FOR THE DISCOVERY OF A NORTHWEST PASSAGE FROM THE ATLANTIC TO THE PACIFIC, AND NARRATIVE OF AN ATTEMPT TO REACH THE NORTH POLE.

BY

SIR W. E. PARRY, CAPT. R.N.. F.R.S.

IN TWO VOLUMES.

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THIRD VOYAGE

SECOND VOYAGE FOR THE DISCOVERY OF A NORTHWEST PASSAGE. CONTINUED.

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Departure from Winter Island.—Meet with some Esquimaux travelling to the Northward.—Obstruction and Danger from the Ice and Tides.—Discovery of the Barrow River, and its Fall.—Favourable Passage to the Northward.—Arrival off the Strait of the Fury and Hecla.—Progress opposed by a fixed barrier of Ice.—Communicate with the Natives of Igloolik.—Unsuccessful Attempt to get between the Ice and the Land—Land upon the Calthorpe Islands.—The Fury drifted by the Ice between two Islands.—Account of a Journey performed in Sledges up an Inlet to the westward.

The gale, which had for some time been blowing from the northward, veered to the N.W.b.W., and increased in strength on the 1st of July, which soon began to produce the effect of drifting the ice off the land. At six o'clock on the 2d, the report from the hill being favourable, and the wind and weather now also sufficiently so, we moved out of our winter's dock, which was, indeed, in part broken to pieces by the swell that had lately set into the bay. At seven we made sail, with a fresh breeze from W.N.W., and having cleared the rocks at the entrance of the bay, ran quickly to the northward and eastward. The ice in the offing was of the "hummocky" kind, and drifting rapidly about with the tides, leaving us a navigable channel varying in width from two miles to three or four hundred yards.

The closeness of the ice again obliging us to make fast on the 3d, we soon after perceived a party of people with a sledge upon the land-floe. I therefore sent Mr. Bushnan, with some of our men, to meet them and to bring them on board, being desirous of ascertaining whereabout, according to their geography, we now were. We found the party to consist, as we expected, of those who had taken leave of us forty days before on their departure to the northward, and who now readily accompanied our people to the ships; leaving only Togolat's idiot-boy by the sledge, tying him to a dog and the dog to the ice. As soon as they came under the bows, they halted in a line, and, according to their former promise, gave three cheers, which salutation a few of us on the forecastle did not fail to return. As soon as they got on board they expressed extreme joy at seeing us again, repeated each of our names with great earnestness, and were, indeed, much gratified by this unexpected encounter. Ewerat being now mounted on the plank which goes

across the gunwales of our ships for conning them conveniently among the ice, explained, in a very clear and pilot-like manner, that the island which we observed to lie off Cape Wilson was that marked by Iligliuk in one of her charts, and there called *Awlikteewik*, pronounced by Ewerat *Ow-l=itt~ee-week*. On asking how many days' journey it was still to Amitioke, they all agreed in saying ten; and back to Winter Island *oon=o=oktoot* (a great many), so that we had good reason to hope we were not far from the former place. I may at once remark, however, that great caution is requisite in judging of the information these people give of the distances from one place to another, as expressed by the number of *se=eniks* (sleeps) or days' journeys, to which, in other countries, a definite value is affixed. No two Esquimaux will give the same account in this respect, though each is equally desirous of furnishing correct information; for, besides their deficiency as arithmeticians, which renders the enumeration of ten a labour, and of fifteen almost an impossibility to many of them, each individual forms his idea of the distance according to the season of the year, and, consequently, the mode of travelling in which his own journey has been performed. Instances of this kind will be observed in the charts of the Esquimaux, in which they not only differ from each other in this respect, but the same individual differs from himself at different times. It is only, therefore, by a careful comparison of the various accounts, and by making allowances for the different circumstances under which the journeys have been made, that these apparent inconsistencies can be reconciled, and an approximation to the truth obtained.

Many of our officers and men cordially greeted these poor people as old acquaintances they were glad to see again, and they were loaded, as usual, with numerous presents, of which the only danger to be apprehended was lest they should go mad on account of them. The women screamed in a convulsive manner at everything they received, and cried for five minutes together with the excess of their joy; and to the honour of "John Bull" be it recorded, he sent by one of the men as he left the ship a piece of sealskin, as a present to *Parree*, being the first offering of real gratitude, and without any expectation of return, that I had ever received from any of them. I never saw them express more surprise than on being assured that we had left Winter Island only a single day; a circumstance which might well excite their wonder, considering that they had themselves been above forty in reaching our present station. They had obtained one reindeer, and had now a large seal on their sledge, to which we added a quantity of bread-dust, that seemed acceptable enough to them. As our way lay in the same direction as theirs, I would gladly have taken their whole establishment on board the ships to convey them to Amitioke, but for the uncertain nature of this navigation, which might eventually have put it out of my power to land them at the precise place of their destination. The ice again opening, we were now obliged to dismiss them, after half an hour's visit, when, having run to the Hecla's bows to see Captain Lyon and his people, they returned to their sledge as fast as their loads of presents would allow them.

We continued our progress northward, contending with the flood-tide and the drifting masses of ice; and the difficulties of such a navigation may be conceived from the following description of what happened to us on the 9th.

At half past eight on the morning of the 9th, a considerable space of open water being left to the northward of us by the ice that had broken off the preceding night, I left the Fury in a boat for the purpose of sounding along the shore in that direction, in readiness for moving whenever the Hecla should be enabled to rejoin us. I found the soundings regular in almost every part, and had just landed to obtain a view from an eminence, when I was recalled by a signal from the Fury, appointed to inform me of the approach of any ice. On my return, I found the external body once more in rapid motion to the southward with the flood-tide, and assuming its usual threatening appearance. For an hour or two the Fury was continually grazed, and sometimes heeled over by a degree of pressure which, under any other circumstances, would not have been considered a moderate one, but which the last two or three days' navigation had taught us to disregard, when compared with what we had reason almost every moment to expect. A little before noon a heavy floe, some miles in length, being probably a part of that lately detached from the shore, came driving down fast towards us, giving us serious reason to apprehend some more fatal catastrophe than any we had yet encountered. In a few minutes it came in contact, at the rate of a mile and a half an hour, with a point of the land-ice left the preceding night by its own separation, breaking it up with a tremendous crash, and forcing numberless immense masses, perhaps many tons in weight, to the height of fifty or sixty feet, from whence they again rolled down on the inner or land side, and were quickly succeeded by a fresh supply. While we were obliged to be quiet spectators of this grand but terrific sight, being within five or six hundred yards of the point, the danger to ourselves was twofold; first, lest the floe should now swing in, and serve us much in the same manner; and, secondly, lest its pressure should detach the land-ice to which we were secured, and thus set us adrift and at the mercy of the tides. Happily, however, neither of these occurred, the floe remaining stationary for the rest of the tide, and setting off with the ebb which made soon after. In the mean while the Hecla had been enabled to get under sail, and was making considerable progress towards us, which determined me to move the Fury as soon as possible from her present situation into the bight I had sounded in the morning, where we made fast in five and a half fathoms alongside some very heavy grounded ice, one third of a mile from a point of land lying next to the northward of Cape Wilson, and which is low for a short distance next the sea. At nine o'clock a large mass of ice fell off the land-floe and struck our stern; and a "calf" lying under it, having lost its superincumbent weight, rose to the surface with considerable force, lifting our rudder violently in its passage, but doing no material injury.

On the 12th, observing an opening in the land like a river, I left the ship in a boat to examine the soundings of the coast. On approaching the opening, we found so strong a current setting out of

it as to induce me to taste the water, which proved scarcely brackish; and a little closer in, perfectly fresh, though the depth was from fourteen to fifteen fathoms. As this stream was a sufficient security against any ice coming in, I determined to anchor the ships somewhere in its neighbourhood; and, having laid down a buoy in twelve fathoms, off the north point of the entrance, returned on board, when I found all the boats ahead endeavouring to tow the ships in-shore. This could be effected, however, only by getting them across the stream of the inlet to the northern shore; and here, finding some land-ice, the ships were secured late at night, after several hours of extreme labour to the people in the boats.

On the morning of the 13th, the ice being still close in with the land just to the northward of us, I determined on examining the supposed river in the boats, and, at the same time, to try our luck with the seines, as the place appeared a likely one for salmon. Immediately on opening the inlet we encountered a rapid current setting outward, and, after rowing a mile and a half to the N.W.b.W., the breadth of the stream varying from one third of a mile to four or five hundred yards, came to some shoal water extending quite across. Landing on the south shore and hauling the boats up above high-water mark, we rambled up the banks of the stream, which are low next the water, but rise almost immediately to the height of about two hundred feet. As we proceeded we gradually heard the noise of a fall of water; and being presently obliged to strike more inland, as the bank became more precipitous, soon obtained a fresh view of the stream running on a much higher level than before, and dashing with great impetuosity down two small cataracts. Just below this, however, where the river turns almost at a right angle, we perceived a much greater spray, as well as a louder sound; and, having walked a short distance down the bank, suddenly came upon the principal fall, of whose magnificence I am at a loss to give any adequate description. At the head of the fall, or where it commences its principal descent, the river is contracted to about one hundred and fifty feet in breadth, the channel being hollowed out through a solid rock of gneiss.

After falling about fifteen feet at angle of 30° with a vertical line, the width of the stream is still narrowed to about forty yards, and then, as if mustering its whole force previous to its final descent, is precipitated, in one vast, continuous sheet of water, almost perpendicular for ninety feet more. The dashing of the water from such a height produced the usual accompaniment of a cloud of spray broad columns of which were constantly forced up like the successive rushes of smoke from a vast furnace, and on this, near the top, a vivid *iris* or rainbow was occasionally formed by the bright rays of an unclouded sun. The basin that receives the water at the foot of the fall is nearly of a circular form, and about four hundred yards in diameter, being rather wider than the river immediately below it.

After remaining nearly an hour, fixed, as it were, to the spot by the novelty and magnificence of the scene before us, we continued our walk upward along the banks; and after passing the two smaller cataracts, found the river again increased in width to above two hundred yards, winding in the most romantic manner imaginable among the hills, and preserving, a smooth and unruffled surface for a distance of three or four miles that we traced it to the southwest above the fall. What added extremely to the beauty of this picturesque river, which Captain Lyon and myself named after our friend Mr. BARROW, Secretary to the Admiralty, was the richness of the vegetation on its banks, the enlivening brilliancy of a cloudless sky, and the animation given to the scene by several reindeer that were grazing beside the stream. Our sportsmen were fortunate in obtaining four of these animals; but we had no success with the seines, the ground proving altogether too rocky to use them with advantage or safety. We returned on board at thirty minutes past two P.M., after the most gratifying visit we had ever paid to the shore in these regions.

We found on our return that a fresh, southerly breeze, which had been blowing for several hours, had driven the ice to some distance from the land; so that at four P.M., as soon as the flood-tide had slackened, we cast off and made all possible sail to the northward, steering for a headland, remarkable for having a patch of land towards the sea, that appeared insular in sailing along shore. As we approached this headland, which I named after my friend Mr. PENRHYN, the prospect became more and more enlivening; for the sea was found to be navigable in a degree very seldom experienced in these regions, and, the land trending two or three points to the westward of north, gave us reason to hope we should now be enabled to take a decided and final turn in that anxiously desired direction. As we rounded Cape Penrhyn at seven P.M., we began gradually to lose sight of the external body of ice, sailing close along that which was still attached in very heavy floes to this part of the coast. Both wind and tide being favourable, our progress was rapid, and unobstructed, and nothing could exceed the interest and delight with which so unusual an event was hailed by us. Before midnight the wind came more off the land, and then became light and variable, after which it settled in the northwest, with thick weather for several hours.

In the course of this day the walruses became more and more numerous every hour, lying in large herds upon the loose pieces of drift-ice; and it having fallen calm at one P.M., we despatched our boats to kill some for the sake of the oil which they afford. On approaching the ice, our people found them huddled close to, and even lying upon, one another, in separate droves of from twelve to thirty, the whole number near the boats being perhaps about two hundred..Most of them waited quietly to be fired at: and even after one or two discharges did not seem to be greatly disturbed, but allowed the people to land on the ice near them, and, when approached, showed an evident disposition to give battle. After they had got into the water, three were struck with harpoons and killed from the boats. When first wounded they became quite

furious, and one, which had been struck from Captain Lyon's boat, made a resolute attack upon her and injured several of the planks with its enormous tusks. A number of the others came round them, also repeatedly striking the wounded animals with their tusks, with the intention either of getting them away, or else of joining in the attack upon them. Many of these animals had young ones, which, when assaulted, they either took between their fore-flippers to carry off, or bore away on their backs. Both of those killed by the Fury's boats were females, and the weight of the largest was fifteen hundred and two quarters nearly; but it was by no means remarkable for the largeness of its dimensions. The peculiar barking noise made by the walrus when irritated, may be heard, on a calm day, with great distinctness at the distance of two miles at least. We found musket-balls the most certain and expeditious way of despatching them after they had been once struck with the harpoon, the thickness of their skin being such that whale-lances generally bend without penetrating it. One of these creatures being accidentally touched by one of the oars in Lieutenant Nias's boat, took hold of it between its flippers, and, forcibly twisting it out of the man's hand, snapped it in two. They produced us very little oil, the blubber being thin and poor at this season, but were welcomed in a way that had not been anticipated; for some quarters of this "marine beef," as Captain Cook has called it, being hung up for steaks, the meat was not only eaten, but eagerly sought after on this and every other occasion throughout the voyage, by all those among us who could overcome the prejudice arising chiefly from the dark colour of the flesh. In no other respect that I could ever discover, is the meat of the walrus, when fresh-killed, in the slightest degree unpalatable. The heart and liver are indeed excellent.

After an unobstructed night's run, during which we met with no ice except in some loose "streams," the water became so much shoaler as to make it necessary to proceed with greater caution. About this time, also, a great deal of high land came in sight to the northward and eastward, which, on the first inspection of the Esquimaux charts, we took to be the large portion of land called *Ke=iyuk-tar-ruoke*,[001] between which and the continent the promised strait lay that was to lead us to the westward. So far all was satisfactory; but, after sailing a few miles farther, it is impossible to describe our disappointment and mortification in perceiving an unbroken sheet of ice extending completely across the supposed passage from one land to the other. This consisted of a floe so level and continuous, that a single glance was sufficient to assure us of the disagreeable fact, that it was the ice formed in its present situation during the winter, and still firmly attached to the land on every side. It was certain, from its continuous appearance for some miles that we ran along its edge, that it had suffered no disruption this season, which circumstance involved the necessity of our awaiting that operation, which nature seemed scarcely yet to have commenced in this neighbourhood, before we could hope to sail round the northeastern point of the American continent.

At thirty minutes past nine A.M. we observed several tents on the low shore immediately abreast of us, and presently afterward five canoes made their appearance at the edge of the land-ice intervening between us and the beach. We soon found, by the cautious manner in which the canoes approached us, that our Winter Island friends had not yet reached this neighbourhood. In a few minutes after we had joined them, however, a few presents served to dissipate all their apprehensions, if, indeed, people could be said to entertain any who thus fearlessly met us half way; and we immediately persuaded them to turn back with us to the shore. Being under sail in the boat, with a fresh breeze, we took two of the canoes in tow, and dragged them along at a great rate, much to the satisfaction of the Esquimaux, who were very assiduous in piloting us to the best landing-place upon the ice, where we were met by several of their companions and conducted to the tents. Before we had reached the shore, however, we had obtained one very interesting piece of information, namely, that it was Igloolik on which we were now about to land, and that we must therefore have made a very near approach to the strait which, as we hoped, was to conduct us once more into the Polar Sea.

We found here two divisions of tents, there being eleven where we landed, and five more about half a mile to the northward. By the time we reached the tents we were surrounded by a crowd of men, women, and children, all carrying some trifling article, which they offered in barter, a business they seemed to understand as well, and to need much more than their countrymen to the southward. We were, of course, not backward in promoting a good understanding by means of such presents as we had brought with us, but they seemed to have no idea of our giving them anything *gratis*, always offering some trifle in exchange, and expressing hesitation and surprise when we declined accepting it. This was not to be wondered at among people who scarcely know what a free gift is among themselves; but they were not long in getting rid of all delicacy or hesitation on this score.

The tents, which varied in size according to the number of occupants, consisted of several seal and walrus skins, the former dressed without the hair, and the latter with the thick outer coat taken off, and the rest shaved thin, so as to allow of the transmission of light through it. These were put together in a clumsy and irregular patchwork, forming a sort of bag of a shape rather oval than round, and supported near the middle by a rude tent-pole composed of several deer's horns or the bones of other animals lashed together. At the upper end of this is attached another short piece of bone at right angles, for the purpose of extending the skins a little at the top, which is generally from six to seven feet from the ground. The lower part of the tent-pole rests on a large stone, to keep it from sinking into the ground, and, being no way secured, is frequently knocked down by persons accidentally coming against it, and again replaced upon the stone. The lower borders of the skins are held down by stones laid on them outside; and, to keep the whole fabric in an erect position, a line of thong is extended from the top, on the side where the door is, to a larger stone placed at some distance. The door consists merely of two flaps, contrived so as

to overlap one another, and to be secured by a stone laid upon them at the bottom. This entrance faces the south or southeast; and as the wind was now blowing fresh from that quarter, and thick snow beginning to fall, these habitations did not impress us at first sight with a very favourable idea of the comfort and accommodation afforded by them. The interior of the tents may be described in few words. On one side of the end next the door is the usual stone lamp, resting on rough stones, with the *ootkooseek*, or cooking pot, suspended over it; and round this are huddled together, in great confusion, the rest of the women's utensils, together with great lumps of raw seahorse flesh and blubber, which at this season they enjoyed in most disgusting abundance. At the inner end of the tent, which is also the broadest, and occupying about one third of the whole apartment, their skins are laid as a bed, having under them some of the *andromeda tetragona* when the ground is hard, but in this case placed on the bare dry shingle. Comfortless as these simple habitations appeared to us in a snowstorm, they are, in general, not deficient in warmth as summer residences; and, being easily removed from place to place, they are certainly well suited to the wants and habits of this wandering people. When a larger habitation than usual is required, they contrive, by putting two of these together, to form a sort of double tent somewhat resembling a marquee, and supported by two poles. The difference between these tents and the one I had seen in Lyon Inlet the preceding autumn, struck me as remarkable, these having no *wall* of stones around them, as is usual in many that we have before met with, nor do I know their reason for adopting this different mode of construction.

Even if it were not the natural and happy disposition of these people to be pleased, and to place implicit confidence wherever kind treatment is experienced, that confidence would soon have been ensured by our knowledge of their friends and relations to the southward, and the information which we were enabled to give respecting their late and intended movements. This, while it excited in them extreme surprise, served also at once to remove all distrust or apprehension, so that we soon found ourselves on the best terms imaginable. In return for all this interesting information, they gave us the names of the different portions of land in sight, many of which being recognised in their countrymen's charts, we no longer entertained a doubt of our being near the entrance of the strait to which all our hopes were directed. We now found also that a point of land in sight, a few miles to the southward of the tents, was near that marked *Ping-=it-k~a-l~ik* on Ewerat's chart, and that, therefore, the low shore along which we had been constantly sailing the preceding night was certainly a part of the continent.

By the time we had distributed most of our presents, and told some long stories about Winter Island, to all which they listened with eager delight and interest, we found the weather becoming so inclement as to determine us to make the best of our way on board, and to take a more favourable opportunity of renewing our visit to the Esquimaux. After pulling out for an hour and a half, Captain Lyon, who had a boat's crew composed of officers, and had, unfortunately, broken one of his oars, was under the necessity of returning to the shore. My anxiety lest the ships should be ventured too near the shore, from a desire to pick up the boats, induced me to persevere an hour longer, when the wind having increased to a gale, which prevented our hearing any of the guns, I reluctantly bore up for our former landing-place. Captain Lyon and his party having quartered themselves at the southern tents, we took up our lodgings at the others, to which we were welcomed in the kindest and most hospitable manner. That we might incommode the Esquimaux as little as possible, we divided into parties of two in each tent, though they would willingly have accommodated twice that number. Immediately on our arrival they offered us dry boots, and it was not long before we were entirely "rigged out" in their dresses, which, thoroughly drenched as we were by the sea, proved no small comfort to us. With these, and a sealskin or two as a blanket, we kept ourselves tolerably warm during a most inclement night; and the tents, which but a few hours before we had looked upon as the most comfortless habitations imaginable, now afforded us a sufficient and most acceptable shelter.

The evening was passed in dealing out our information from the southward, and never did any arrival excite more anxious inquiries than those we were now obliged to answer. So intimate was the knowledge we possessed respecting many of their relationships, that, by the help of a memorandum-book in which these had been inserted, I believe we almost at times excited a degree of superstitious alarm in their minds. This sort of gossip, and incessant chattering and laughing, continued till near midnight, when the numerous visitors in our tents began to retire to their own and to leave us to our repose. Awaking at four A.M. on the 17th, I found that the weather had moderated and cleared up, and the ships soon after appearing in sight, we called our boat's crew up, and sent one of the Esquimaux round to the other tents to inform Captain Lyon of our setting out. Several of the natives accompanied us to our boat, which they cheerfully helped us to launch, and then went round to another part of the beach for their own canoes. A thick fog had come on before this time, notwithstanding which, however, we managed to find the ships, and got on board by seven o'clock. Five canoes arrived soon after, and the wind being now light and variable, we lay-to for an hour to repay our kind friends for the hospitable reception they had given us. After supplying them abundantly with tin canisters, knives, and pieces of iron hoop, we hauled to the northeastward to continue our examination of the state of the ice, in hopes of finding that the late gale had in this respect done us some service.

Finding that a farther examination of the eastern lands could not at present be carried on, without incurring the risk of hampering the ships at a time when, for aught that we knew, the ice might be breaking up at the entrance of the strait, we stood back to the westward, and, having fetched near the middle of Igloolik, were gratified in observing that a large "patch" of the fixed ice[002] had broken off and drifted out of sight during our absence. At nine A.M. we saw eleven canoes coming off from the shore, our distance from the tents being about four miles. We now

hoisted two of them on board, their owners K=a-k~ee and N~u-y=ak-k~a being very well pleased with the expedient, to avoid damaging them alongside. Above an hour was occupied in endeavouring to gain additional information respecting the land to the westward, and the time when we might expect the ice to break up in the strait, after which we dismissed them with various useful presents, the atmosphere becoming extremely thick with snow, and threatening a repetition of the same inclement weather as we had lately experienced.

On the 23d we went on shore to pay another visit to the Esquimaux, who came down on the ice in great numbers to receive us, repeatedly stroking down the front of their jackets with the palm of the hand as they advanced, a custom not before mentioned, as we had some doubt about it at Winter Island, and which they soon discontinued here. They also frequently called out *tima*, a word which, according to Hearne, signifies in the Esquimaux language, "What cheer!" and which Captain Franklin heard frequently used on first accosting the natives at the mouth of the Coppermine River. It seems to be among these people a salutation equivalent to that understood by these travellers, or at least some equally civil and friendly one, for nothing could exceed the attention which they paid us on landing. Some individual always attached himself to each of us immediately on our leaving the boat, pointing out the best road, and taking us by the hand or arm to help us over the streams of water or fissures in the ice, and attending us wherever we went during our stay on shore. The day proving extremely fine and pleasant, everything assumed a different appearance from that at our former visit, and we passed some hours on shore very agreeably. About half a mile inland of the tents, and situated upon the rising ground beyond the swamps and ponds before mentioned, we found the ruins of several winter habitations, which, upon land so low as Igloolik, formed very conspicuous objects at the distance of several miles to seaward. These were of the same circular and dome-like form as the snow-huts, but built with much more durable materials, the lower part or foundation being of stones, and the rest of the various bones of the whale and walrus, gradually inclining inward and meeting at the top. The crevices, as well as the whole of the outside, were then covered with turf, which, with the additional coating of snow in the winter, serves to exclude the cold air very effectually. The entrance is towards the south, and consists of a passage ten feet long, and not more than two in height and breadth, built of flat slabs of stone, having the same external covering as that of the huts. The beds are raised by stones two feet from the ground, and occupy about one third of the apartment at the inner end; and the windows and a part of the roofs had been taken away for the convenience of removing their furniture in the spring. It was a natural inference, from the nature of these habitations, that these people, or at least a portion of them, were constant residents on this spot, which, indeed, seemed admirably calculated to afford in luxurious profusion all that constitutes Esquimaux felicity. This, however, did not afterward prove to be absolutely the case; for though Igloolik (as perhaps the name may imply) is certainly one of their principal and favourite rendezvous, yet we subsequently found the inland entirely deserted by them at the same season.

In every direction around the huts were lying innumerable bones of walruses and seals, together with sculls of dogs, bears, and foxes, on many of which a part of the putrid flesh still remaining sent forth the most offensive effluvia. We were not a little surprised to find also a number of human sculls lying about among the rest, within a few yards of the huts; and were somewhat inclined to be out of humour on this account with our new friends, who not only treated the matter with the utmost indifference, but, on observing that we were inclined to add some of them to our collections, went eagerly about to look for them, and tumbled, perhaps, the craniums of some of their own relations into our bag, without delicacy or remorse. In various other parts of the island we soon after met with similar relics no better disposed of; but we had yet to learn how little pains these people take to place their dead out of the reach of hungry bears or anatomical collectors.

The account we gave of our visit to the shore naturally exciting the curiosity and interest of those who had not yet landed, and the ice remaining unchanged on the 24th, a couple of boats were despatched from each ship, with a large party of the officers and men, while the ships stood off and on. On the return of the boats in the evening, I found from Lieutenant Reid that a new family of the natives had arrived to-day from the main land, bringing with them a quantity of fine salmon and venison, of which some very acceptable samples were procured for both ships. Being desirous of following up so agreeable a kind of barter, I went on shore the next morning for that purpose, but could only procure a very small quantity of fish from the tent of the new-comer, a middle-aged, noisy, but remarkably intelligent and energetic man named *T=o=ol~em~ak*. After some conversation, we found from this man that, in order to obtain a fresh supply of fish, three days would be required; this prevented my putting in execution a plan of going out to the place where the fish were caught, which we at first understood to be near at hand. We therefore employed all our eloquence in endeavouring to procure a supply of this kind by means of the Esquimaux themselves, in which we at length so far succeeded, that Toolemak promised, for certain valuable considerations of wood and iron, to set out on this errand the following day.

Shortly, after I returned on board Captain Lyon made the signal "to communicate with me," for the purpose of offering his services to accompany our fisherman on his proposed journey, attended by one of the Hecla's men; to which, in the present unfavourable state of the ice, I gladly consented, as the most likely means of procuring information of interest during this our unavoidable detention. Being equipped with a small tent, blankets, and four days' provision, Captain Lyon left us at ten P.M., when I made sail to re-examine the margin of the ice.

It blew fresh from the eastward during the night of the 28th, with continued rain, all which we

considered favourable for dissolving and dislodging the ice, though very comfortless for Captain Lyon on his excursion. The weather at length clearing up in the afternoon, I determined on beating to the eastward, to see if any more of the land in that direction could be made out than the unfavourable position of the ice would permit at our last visit. The Fury then made sail and stood to the eastward, encountering the usual strength of tide off the southwest point of Tangle Island, and soon after a great quantity of heavy drift-ice, apparently not long detached from some land.

I determined to avoid, if possible, the entanglement of the Fury among the ice, which now surrounded her on every side, and to stand back to Igloolik, to hear what information Captain Lyon's journey might have procured for us.

At the distance of one third of a mile from Tangle Island, where we immediately gained the open sea beyond, we observed the Hecla standing towards us, and rejoined her at a quarter before eleven, when Captain Lyon came on board to communicate the result of his late journey, of which he furnished me with the following account, accompanied by a sketch of the lands he had seen, as far as the extremely unfavourable state of the weather would permit.

> "Accompanied by George Dunn, I found Toolemak on landing, who welcomed us to his tent, in which for two hours it was scarcely possible to move, in consequence of the crowd who came to gaze at us. A new deerskin was spread for me, and Dunn having found a corner for himself, we all lay down to sleep, not, however, until our host, his wife, their little son, and a dog, had turned in beside me, under cover of a fine warm skin, all naked except the lady, who, with the decorum natural to her sex, kept on a part of her clothes. At ten A.M. we started, and found the sledge on a beach near the southern ice. Four men were to accompany us on this vehicle, and the good-natured fellows volunteered to carry our luggage. A second sledge was under the charge of three boys who had eight dogs, while our team consisted of eleven. The weather was so thick that at times we could not see a quarter of a mile before us, but yet went rapidly forward to the W.N.W., when, after about six hours, we came to a high, bold land, and a great number of islands of reddish granite, wild and barren in the extreme. We here found the ice in a very decayed state, and in many places the holes and fissures were difficult if not dangerous to pass. At the expiration of eight hours, our impediments in this respect had increased to such a degree as to stop our farther progress. Dunn, the old man, and myself therefore walked over a small island, beyond which we saw a sheet of water, which precluded any farther advance otherwise than by boats.
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> "In the hope that the morning would prove more favourable for our seeing the land, the only advantage now to be derived from our visit, since the fishing place was not attainable, it was decided to pass the night on one of the rocky islands. The Esquimaux having brought no provisions with them, I distributed our four days' allowance of meat in equal proportions to the whole party, who afterward lay down to sleep on the rocks, having merely a piece of skin to keep the rain from their faces. In this comfortless state they remained very quietly for eight hours. Our little hunting-tent just held Dunn and myself, although not in a very convenient manner; but it answered the purpose of keeping us dry, except from a stream of water that ran under us all night.
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> "The morning of the 27th was rather fine for a short time, and we saw above thirty islands, which I named COXE'S GROUP, varying in size from one hundred yards to a mile or more in length. Two deer were observed on the northern land, which was called *Khead-Laghioo* by the Esquimaux, and Toolemak accompanied Dunn in chase of them. On crossing to bring over our game, we found the old Esquimaux had skinned and broken up the deer after his own manner, and my companions being without food, I divided it into shares.
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> "Arriving on the ice, a skin was taken from the sledge as a seat, and we all squatted down to a repast which was quite new to me. In ten minutes the natives had picked the deer's bones so clean that even the hungry dogs disdained to gnaw them a second time. Dunn and myself made our breakfast on a choice slice cut from the spine, and found it so good, the windpipe in particular, that at dinner-time we preferred the same food to our share of the preserved meat which we had saved from the preceding night.
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> "As we sat I observed the moschetoes to be very numerous, but they were lying in a half torpid state on the ice, and incapable of molesting us. Soon after noon we set forward on our return, and, without seeing any object but the flat and decaying ice, passed from land to land with our former celerity, dashing through large pools of water much oftener than was altogether agreeable to men who had not been dry for above thirty hours, or warm for a still longer period. Our eleven dogs were large, fine-looking animals, and an old one of peculiar sagacity was placed at their head by having a longer trace, so as to lead them over the safest and driest places, for these animals have a great dread of water. The leader was instant in obeying the voice of the driver, who did not beat, but repeatedly talked and called it by name. It was beautiful to observe the sledges racing to the same

object, the dogs and men in full cry, and the vehicles splashing through the water with the velocity of rival stage-coaches.

"We were joyfully welcomed to the dwelling of Ooyarra, whose guest I was now to become, and the place of honour, the deerskin seat, was cleared for my reception. His two wives, *K~ai-m=o=o-khi~ak* and *Aw~a-r=un-n~i* occupied one end, for it was a double tent; while at the opposite extremity the parents of the senior wife were established. The old mother N=ow-k~it-y~oo assisted the young woman in pulling off our wet clothes and boots, which latter being of native manufacture, she new-soled and mended without any request on our side, considering us as a part of the family. Dunn slept in the little tent to watch our goods, and I had a small portion of Ooyarra's screened off for me by a seal's skin. My host and his wives having retired to another tent, and my visitors taking compassion on me, I went comfortably to sleep; but at midnight was awakened by a feeling of great warmth, and, to my surprise, found myself covered by a large deerskin, under which lay my friend, his two wives, and their favourite puppy, all fast asleep and stark naked. Supposing this was all according to rule, I left them to repose in peace, and resigned myself to sleep.

"On rising, Dunn and I washed with soap in a pond, which caused great speculations among the by-standers, on some of whom we afterward performed miracles in the cleansing way. A large assemblage being collected to hear me talk of Ney-uning-Eitua, or Winter Island, and to see us eat, the women volunteered to cook for us; and, as we preferred a fire in the open air to their lamps, the good-natured creatures sat an hour in the rain to stew some venison which we had saved from our shares of the deer. The fires in summer, when in the open air, are generally made of bones previously well rubbed with blubber, and the female who attends the cooking chews a large piece, from which, as she extracts the oil, she spirts it on the flame.

"After noon, as I lay half asleep, a man came, and, taking me by the hand, desired Dunn to follow. He led to a tent, which, from the stillness within, I conjectured was untenanted. Several men stood near the door, and, on entering, I found eighteen women assembled and seated in regular order, with the seniors in front. In the centre, near the tent-pole, stood two men, who, when I was seated on a large stone, walked slowly round, and one began dancing in the usual manner, to the favourite tune of 'Amna aya.' The second person, as I soon found, was the dancer's assistant; and, when the principal had pretty well exhausted himself, he walked gravely up to him, and, taking his head between his hands, performed a ceremony called *K=o=on~ik*, which is rubbing noses, to the great amusement and amid the plaudits of the whole company. After this, as if much refreshed, he resumed his performance, occasionally, however, taking a koonik to enliven himself and the spectators. The rub-*bee*, if I may be excused the expression, was at length brought forward and put in the place of the first dancer, who rushed out of the tent to cool himself. In this manner five or six couples exhibited alternately, obtaining more or less applause, according to the oddity of their grimaces. At length a witty fellow, in consequence of some whispering and tittering among the ladies, advanced and gave me the koonik, which challenge I Was obliged to answer by standing up to dance, and my nose was in its turn most severely rubbed, to the great delight of all present.

"Having been as patient as could be wished for above an hour, and being quite overpowered by the heat of the crowded tent, I made a hasty retreat, after having distributed needles to all the females, and exacting kooniks from all the prettiest in return. A general outcry was now made for Dunn, a most quiet North countryman, to exhibit also; but he, having seen the liberties which had been taken with my nose, very prudently made his retreat, anticipating what would be his fate if he remained.

"During a short, interval of fine weather, we hung out our clothes to dry, and the contents of our knapsacks, instruments, knives, and beads were strewed on the ground, while we went inland to shoot a few ducks. We cautioned no one against thieving, and were so much at their mercy that everything might have been taken without a possibility of detection; yet not a single article was found to have been removed from its place at our return. At night I was attended by the same bedfellows as before; the young puppy, however, being now better acquainted, took up his quarters in my blanket-bag, as from thence he could the more easily reach a quantity of walrus-flesh which lay near my head; and I was awakened more than once by finding him gnawing a lump by my side.

"On the morning of the 29th I was really glad to find that the ships were not yet in sight, as I should be enabled to pass another day among the hospitable natives. While making my rounds I met several others, who were also visiting, and who each invited me to call at his tent in its turn. Wherever I entered, the master rose and resigned his seat next his wife or wives, and stood before me or squatted on a stone near the door. I was then told to 'speak!' or, in fact, to give a history of all I knew of the distant tribe, which, from constant repetition, I could now manage

pretty well. In one tent I found a man mending his paddle, which was ingeniously made of various little scraps of wood, ivory, and bone, lashed together. He put it into my hands to repair, taking it for granted that a Kabloona would succeed much better than himself. An hour afterward the poor fellow came and took me by the hand to his tent, where I found a large pot of walrus-flesh evidently cooked for me. His wife licked a piece and offered it, but, on his saying something to her, took out another, and, having pared off the outside, gave me the clean part, which, had it been carrion, I would not have hurt these poor creatures by refusing. The men showed me some curious puzzles with knots on their fingers, and I did what I could in return. The little girls were very expert in a singular but dirty amusement, which consisted in drawing a piece of sinew up their nostrils and producing the end out of their mouths. The elder people were, for the most part, in chase of the tormentors, which swarmed in their head and clothes; and I saw, for the first time, an ingenious contrivance for detaching them from the back, or such parts of the body as the hands could not reach. This was the rib of a seal, having a bunch of the whitest of a deer's hair attached to one end of it, and on this rubbing the places which require it, the little animals stick to it; from their colour they are easily detected, and, of course, consigned to the mouths of the hunters.

"The weather clearing in the afternoon, one ship was seen in the distance, which diffused a general joy among the people, who ran about screaming and dancing with delight. While lounging along the beach, and waiting the arrival of the ship, I proposed a game at 'leap frog,' which was quite new to the natives, and in learning which some terrible falls were made. Even the women with the children at their backs would not be outdone by the men, and they formed a grotesque party of opposition jumpers. Tired with a long exhibition, I retreated to the tent, but was allowed a very short repose, as I was soon informed that the people from the farthest tents were come to see my performance, and, on going out, I found five men stationed at proper distances with their heads down for me to go over them, which I did amid loud cries of *koyenna* (thanks).

"As the ship drew near in the evening, I perceived her to be the Hecla, but, not expecting a boat so late, lay down to sleep. I soon found my mistake, for a large party came drumming on the side of the tent, and crying out that a 'little ship' was coming, and, in fact, I found the boat nearly on shore. Ooyarra's senior wife now anxiously begged to tattoo a little figure on my arm, which she had no sooner done than the youngest insisted on making the same mark; and while all around were running about and screaming in the greatest confusion, these two poor creatures sat quietly down to embellish me. When the boat landed, a general rush was made for the privilege of carrying our things down to it. Awarunni, who owned the little dog which slept with me, ran and threw him as a present into the boat; when, after a general koonik, we pushed off, fully sensible of the kind hospitality we had received. Toolemak and Ooyarra came on board in my boat, in order to pass the night and receive presents, and we left the beach under three hearty cheers."

CHAPTER XI.

A Whale killed.—Other Charts drawn by the Esquimaux.—Account of a Journey to the Narrows of the Strait.—Discovery of the Sea to the Westward.—Total Disruption of the Ice at the Eastern Entrance of the Strait.—Instance of local Attraction on the Compasses.—Sail through the Narrows, and again stopped by fixed Ice.—Account of several Land Journeys and Boat Excursions.—Observations on the Tides.—Continued Obstacles from fixed Ice.

Aug. 1.—The information obtained by Captain Lyon on his late journey with the Esquimaux served very strongly to confirm all that had before been understood from those people respecting the existence of the desired passage to the westward in this neighbourhood, though the impossibility of Captain Lyon's proceeding farther in that direction, combined with our imperfect knowledge of the language, still left us in some doubt as to the exact position of the strait in question. While, therefore, Captain Lyon was acquainting me with his late proceedings, we shaped a course for Igloolik, in order to continue our look-out upon the ice, and made the tents very accurately by the compass, after a run of five leagues.

The present state of the ice, which was thin and "rotten,", served no less to excite our surprise than to keep alive our hopes and expectations. The spaces occupied respectively by ice and holes were about equal; and so extensive and dangerous were the latter, that the men could with extreme difficulty walk twenty or thirty yards from the ship to place the anchors, and that at no small risk of falling through. We were astonished, therefore, to find with what tenacity a field of ice, whose parts appeared thus loosely joined, still continued to hang together, notwithstanding the action of the swell that almost constantly set upon its margin.

We had for several days past occasionally seen black whales about the ships, and our boats were kept in constant readiness to strike one, for the sake of the oil, in which endeavour they at length succeeded this morning. The usual signal being exhibited, all the boats were sent to their assistance, and in less than an hour and a half had killed and secured the fish, which proved a moderate-sized one of above "nine feet bone," exactly suiting our purpose. The operation of "flinching" this animal, which was thirty-nine feet and a half in length, occupied most of the afternoon, each ship taking half the blubber and hauling it on the ice, "to make off" or put into casks.

As soon as we had completed the stowage of the blubber, and washed the ships and people's clothes, we cast off on the 6th, taking in tow the carcass of the whale (technically called the "crang") for our friends at Igloolik. The wind dying away when the ships were off the northeast end of the island, the boats were despatched to tow the whale on shore, while Captain Lyon and myself went ahead to meet some of the canoes that were paddling towards us. We soon joined eleven of them, and on our informing the Esquimaux of the prize the boats were bringing them, they paddled off with great delight. When they arrived at the spot, and had civilly asked permission to eat some of it, they dropped their canoes astern to the whale's tail, from which they cut off enormous lumps of flesh and ravenously devoured it; after which they followed our boats in-shore, where the carcass was made fast to a mass of grounded ice for their future disposal.

As we made several tacks off the island next to the northward of Igloolik, called by the Esquimaux *Neerlo-Nackto*, two canoes came off to us, in one of which was Toolemak. He and his companions came on board the Fury, when I employed him for a couple of hours in drawing a chart of the strait. Toolemak, though a sensible and intelligent man, we soon found to be no draughtsman, so that his performance in this way, if taken alone, was not a very intelligible delineation of the coast. By dint, however, of a great deal of talking on his part, and some exercise of patience on ours, we at length obtained a copious verbal illustration of his sketch, which confirmed all our former accounts respecting the existence of a passage to the westward in this immediate neighbourhood, and the large extent of land on the northern side of the strait. Toolemak also agreed with our other Esquimaux informants in stating, that from the coast of Akkoolee no land is visible to the westward; nor was any ever heard of in that direction by the Esquimaux. This fact they uniformly assert with a whine of sorrow, meaning thereby to intimate that their knowledge and resources are there both at an end.

The disruption of the ice continued to proceed slowly till early on the morning of the 14th; the breeze having freshened from the northwest, another floe broke away from the fixed ice, allowing us to gain about half a mile more to the westward; such was the vexatious slowness with which we were permitted to advance towards the object of our most anxious wishes!

On the 14th I left the ship with Mr. Richards and four men, and furnished with provisions for ten days, intending, if possible, to reach the main land at a point where we could overlook the strait. In this we succeeded after a journey of four days, arriving on the morning of the 18th at the extreme northern point of a peninsula, overlooking the narrowest part of the desired strait, which lay immediately below us in about an east and west direction, being two miles in width, apparently very deep, and with a tide or current of at least two knots, setting the loose ice through to the eastward. Beyond us, to the west, the shores again separated to the distance of several leagues; and for more than three points of the compass, in that direction, no land could be seen to the utmost limits of a clear horizon, except one island six or seven miles distant. Over this we could not entertain a doubt of having discovered the Polar Sea; and, loaded as it was with ice, we already felt as if we were on the point of forcing our way through it along the northern shores of America.

After despatching one of our party to the foot of the point for some of the sea-water, which was found extremely salt to the taste, we hailed the interesting event of the morning by three hearty cheers and by a small extra allowance of grog to our people, to drink a safe and speedy passage through the channel just discovered, which I ventured to name, by anticipation, THE STRAIT OF THE FURY AND HECLA. Having built a pile of stones upon the promontory, which, from its situation with respect to the Continent of America, I called CAPE NORTHEAST, we walked back to our tent and baggage, these having, for the sake of greater expedition, been left two miles behind; and, after resting a few hours, set out at three P.M. on our return.

We reached the ships at ten o'clock P.M. on Tuesday the 20th. On almost all the shores both of the main land and islands that we visited, some traces of the Esquimaux were found; but they were less numerous than in any other places on which we had hitherto landed. This circumstance rather seemed to intimate, as we afterward found to be the case, that the shores of the strait and its immediate neighbourhood are not a frequent resort of the natives during the summer months.

We got under way on the 21st, were off Cape Northeast on the 26th, and I gave the name of CAPE OSSORY to the eastern point of the northern land of the Narrows; but on that day, after clearing two dangerous shoals, and again deepening our soundings, we had begun to indulge the most flattering hopes of now making such a rapid progress as would in some degree compensate for all our delays and disappointments, when, at once to crush every expectation of this sort, it was suddenly announced from the crow's nest that another barrier of *fixed* ice stretched completely across the strait, a little beyond us, in one continuous and impenetrable field, still occupying its winter station. In less than an hour we had reached its margin, when, finding this report but too correct, and that, therefore, all farther progress was at present as impracticable as if no strait existed, we ran the ships under all sail for the floe, which proved so "rotten" and

decayed that the ships forced themselves three or four hundred yards through it before they stopped. Keeping all our canvass spread, we then tried to break the thin edges about the numerous holes, by dropping weights over the bows, as well as by various other equally ineffectual expedients; but the ice was "tough" enough to resist every effort of this kind, though its watery state was such as to increase, if possible, our annoyance at being stopped by it. The passage to the northward of the island was not even so clear as this by above two miles of ice, so that in every respect our present route was to be preferred to the other; and thus, after a vexatious delay of six weeks at the eastern entrance of the strait, and at a time when we had every reason to hope that nature, though hitherto tardy in her annual disruption of the ice, had at length made an effort to complete it, did we find our progress once more opposed by a barrier of the same continuous, impenetrable, and hopeless nature as at first!

As soon as the anchors were dropped, my attention was once more turned to the main object of the expedition, from which it had for a moment been diverted by the necessity of exerting every effort for the immediate safety of the ships. This being now provided for, I had leisure to consider in what manner, hampered as the ships were by the present state of the ice, our means and exertions might, during this unavoidable detention, be employed to the greatest advantage, or, at least, with the best prospect of ultimate utility.

Whatever doubts might at a distance have been entertained respecting the identity, or the contrary, of the place visited by Captain Lyon with that subsequently discovered by myself, there could be none on a nearer view; as, independently of the observed latitude, Captain Lyon could not, on approaching the narrows, recognise a single feature of the land; our present channel being evidently a much wider and more extensive one than that pointed out by Toolemak, on the journey. It became, therefore, a matter of interest, now that this point was settled and our progress again stopped by an insuperable obstacle, to ascertain the extent and communication of the southern inlet; and, should it prove a second strait, to watch the breaking up of the ice about its eastern entrance, that no favourable opportunity might be missed of pushing through it to the westward. I therefore determined to despatch three separate parties, to satisfy all doubts in that quarter, as well as to gain every possible information as to the length of the strait, and the extent of the fixed ice now more immediately before us.

With this view, I requested Captain Lyon to take with him Mr. Griffiths and four men, and proceed overland in a S.b.E. direction, till he should determine, by the difference of latitude, which amounted only to sixteen miles, whether there was or was not a strait leading to the westward, about the parallel of 69° 26', being nearly that in which the place called by the Esquimaux *Kh=emig* had been found by observation to lie. In the mean time, Lieutenant Palmer was directed to proceed in a boat to Igloolik, or Neerlo-Nackto, as might be necessary, to ascertain whether the passage leading towards Kh=emig was yet clear of ice; and, should he find any one of the Esquimaux willing to accompany him to the ships with his canoe, to bring him on board as a pilot. The third party consisted of Mr. Bushnan, with three men, under the command of Lieutenant Reid, who was instructed to proceed along the continental coast to the westward, to gain as much information as possible respecting the termination of our present strait, the time of his return to the ships being limited to four days, at the expiration of which the other two parties might also be expected to reach us.

On the morning of the 29th, the wind being light from the eastward, but the weather much more clear than before, we weighed and stood over to the mainland with the intention of putting our travellers on shore, but found that coast now so lined with the ice which had lately broken adrift that it was not possible for a boat to approach it. Standing off to the westward, to see what service the late disruption had done us, we found that a considerable floe had separated, exactly in a line between the island off which we lay and a second to the westward of it, subsequently named in honour of LORD AMHERST. Tacking at the newly-formed margin of the fixed ice, we observed, not only that it was still firmly attached to the shores, but that it was now almost entirely "hummocky," and heavier than any we had seen since making Igloolik; some of the hummocks, as we afterward found, measuring from eight to ten feet above the surface of the sea.

The different character now assumed by the ice, while it certainly damped our hopes of the passage being cleared this season by the gradual effects of dissolution, confirmed, however, in a very satisfactory manner, the belief of our being in a broad channel communicating with a western sea. As the conclusions we immediately drew from this circumstance may not be so obvious to others, I shall here briefly explain that, from the manner in which the hummocky floes are formed, it is next to impossible that any of these of considerable extent can ever be produced in a mere inlet having a narrow communication with the sea. There is, in fact, no ice to which the denomination of "sea-ice" may be more strictly and exclusively applied than this; and we therefore felt confident that the immense floes which now opposed our progress must have come from the sea on one side or the other; while the current, which we had observed to run in an easterly direction in the narrows, of this strait, precluded the possibility of such ice having found its way in from that quarter. The only remaining conclusion was, that it must have been set into the strait from the westward towards the close of a summer, and cemented in its present situation by the frost of the succeeding winter.

A great deal of snow having fallen in the last two days, scarcely a dark patch was now to be seen on any part of the land, so that the prospect at daylight on the 30th was as comfortless as can well be imagined for the parties who were just about to find their way among the rocks and precipices. Soon after four A.M., however, when we had ascertained that the drift-ice was no longer lying in their way, they were all despatched in their different directions. For each of the

land-parties a depôt of several days' provision and fuel was, in case of accidents, established on the beach; and Lieutenant Palmer took in his boat a supply for nine days.

On the 31st the wind blew fresh and cold from the northwest, which caused a quantity of ice to separate from the fixed floe in small pieces during the day, and drift past the ships. Early in the morning, a she-bear and her two cubs were observed floating down on one of these masses, and, coming close to the Hecla, were all killed. The female proved remarkably small, two or three men being able to lift her into a boat.

At half past nine on the morning of the 1st of September, one of our parties was descried at the appointed rendezvous on shore, which, on our sending a boat to bring them on board, proved to be Captain Lyon and his people. From their early arrival we were in hopes that some decisive information had at length been obtained; and our disappointment may therefore be imagined, in finding that, owing to insuperable obstacles, on the road, he had not been able to advance above five or six miles to the southward, and that with excessive danger and fatigue, owing to the depth of the snow, and the numerous lakes and precipices.

At nine A.M. on the 2d, Lieutenant Reid and his party were descried at their landing-place, and a boat being sent for them, arrived on board at half past eleven. He reported that the ice seemed to extend from Amherst Island as far as they could see to the westward, presenting one unbroken surface from the north to the south shore of the strait.

Notwithstanding every exertion on the part of our travellers, their labours had not thrown much light on the geography of this part of the coast, nor added any information that could be of practical use in directing the operations of the ships. The important question respecting a second passage leading to the westward still remained as much a matter of mere conjecture as at first; while the advanced period of the season, and the unpromising appearance of the ice now opposing our progress, rendered it more essential than ever that this point should, if possible, be decided. Under this impression it occurred to me, that the desired object might possibly be accomplished by pursuing the route along the head or western shore of Richards's Bay, part of which I had already traversed on my former journey, and found it much less laborious walking than that experienced by Captain Lyon on the higher and more rugged mountains inland. I determined, therefore, to make this attempt, taking with me Mr. Richards and most of my former companions.

This night proved the coldest we had experienced during the present season, and the thermometer stood at 24° when I left the ships at four A.M. on the 3d, having previously directed Captain Lyon to remain as near their present station as might be consistent with safety, and carefully watch for any alteration that might occur in the western ice.

Being favoured by a strong northwesterly breeze, we reached the narrows at half past six A.M., and immediately encountered a race or ripple, so heavy and dangerous that it was only by carrying a press of canvass on the boat that we succeeded in keeping the seas from constantly breaking into her. This rippling appeared to be occasioned by the sudden obstruction which the current meets at the western mouth of the narrows, aided, in the present instance, by the strong breeze that blew directly upon the corner forming the entrance on the south side.

Having landed at Cape Northeast, I made sail for the isthmus at ten A.M., where we arrived after an hour's run; and hauling the boat up on the rocks, and depositing the greater part of our stores near her, set off at one P.M. along the shore of Richards's Bay, being equipped with only three days' provision, and as small a weight of clothing as possible. The coast, though not bad for travelling, led us so much more to the westward than I expected, in consequence of its numerous indentations, that, after above five hours' hard walking, we had only made good a W.S.W. course, direct distance six miles. We obtained on every eminence a distinct view of the ice the whole way down to Neerlo-nakto, in which space not a drop of clear water was discernible; the whole of Richards's Bay was filled with ice as before.

We moved at six P.M. on the 4th, and soon came to a number of lakes from half a mile to two miles in length occurring in chains of three or four together, round which we had to walk, at the expense of much time and labour. At half past six, on gaining a sight of the sea from the top of a hill, we immediately recognised to the eastward the numerous islands of red granite described by Captain Lyon; and now perceived, what had before been surmised, that the south shore of Richards's Bay formed the northern coast of the inlet, up which his journey with the Esquimaux had been pursued. Our latitude, by account from noon, being now 69° 28', we felt confident that a short walk directly to the south must bring us to any strait communicating with that inlet, and we therefore pushed on in confident expectation of being near our journey's end. At seven P.M., leaving the men to pitch the tent in a sheltered valley, Mr. Richards and myself ascended the hill that rose beyond it, and, on reaching its summit, found ourselves overlooking a long and narrow arm of the sea communicating with the inlet before seen to the eastward, and appearing to extend several miles nearly in an east and west direction, or parallel to the table-land before described, from which it is distant three or four miles. That the creek we now overlooked was a part of the same arm of the sea which Captain Lyon had visited, the latitude, the bearings of Igloolik, which was now plainly visible, and the number and appearance of the Coxe Islands, which were too remarkable to be mistaken, all concurred in assuring us; and it only, therefore, remained for us to determine whether it would furnish a passage for the ships. Having made all the remarks which the lateness of the evening would permit, we descended to the tent at dusk, being directed by a cheerful, blazing fire of the *andromeda tetragona*, which, in its present dry state, served as excellent fuel for warming our provisions.

Setting forward at five A.M. on the 5th, along some pleasant valleys covered with grass and other vegetation, and the resort of numerous reindeer, we walked six or seven miles in a direction parallel to that of the creek; when, finding the latter considerably narrowed, and the numerous low points of its south shore rendering the water too shoal, to all appearance, even for the navigation of a sloop of ten tons, I determined to waste no more time in the farther examination of so insignificant a place. The farther we went to the westward, the higher the hills became; and the commanding prospect thus afforded enabled us distinctly to perceive with a glass that, though the ice had become entirely dissolved in the creek, and for half a mile below it, the whole sea to the eastward, even as far as Igloolik, was covered with one continuous and unbroken floe.

Having now completely satisfied myself, that, as respected both ice and land, there was no navigable passage for ships about this latitude, no time was lost in setting out on our return.

At half past eight we arrived on board, where I was happy to find that all our parties had returned without accident, except that Lieutenant Palmer had been wounded in his hand and temporarily blinded by a gun accidentally going off, from which, however, he fortunately suffered no eventual injury.

The result of our late endeavours, necessarily cramped as they had been, was to confirm, in the most satisfactory manner, the conviction that we were now in the only passage leading to the westward that existed in this neighbourhood. Notwithstanding, therefore, the present unpromising appearance of the ice, I had no alternative left me but patiently to await its disruption, and instantly to avail myself of any alteration that nature might yet effect in our favour.

CHAPTER XII.

A Journey performed along the South Shore of Cockburn Island.—Confirmation of an Outlet to the Polar Sea.—Partial Disruption of the Old Ice, and formation of New.—Return through the Narrows to the Eastward.—Proceed to examine the Coast to the Northeastward.—Fury's Anchor broken.—Stand over to Igloolik to look for Winter-quarters.—Excursion to the Head of Quilliam Creek.—Ships forced to the Westward by Gales of Wind—A Canal sawed through the Ice, and the Ships secured in their Winter Station.—Continued Visits of the Esquimaux, and Arrival of some of the Winter Island Tribe.—Proposed Plan of Operations in the ensuing Spring.

A light air springing up from the eastward on the morning of the 8th, we took advantage of it to run up the margin of the fixed ice, which was now, perhaps, half a mile farther to the westward, in consequence of small pieces being occasionally detached from it, than it had been when we tacked off it ten days before.

The pools on the floes were now so hardly frozen, that skating and sliding were going on upon them the whole day, though but a week before it had been dangerous to venture upon them.

This latter circumstance, together with the fineness of the weather, and the tempting appearance of the shore of Cockburn Island, which seemed better calculated for travelling than any that we had seen, combined to induce me to despatch another party to the westward, with the hope of increasing, by the only means within our reach, our knowledge of the lands and sea in that direction. Lieutenant Reid and Mr. Bushnan were once more selected for that service, to be accompanied by eight men, a large number being preferred, because by this means only is it practicable to accomplish a tolerably long journey, especially on account of the additional weight of warm clothing which the present advanced state of the season rendered indispensable. Lieutenant Reid was furnished with six days' provisions, and directed to land where most practicable on the northern shore, and thence to pursue his journey to the westward as far as his resources would admit, gaining all possible information that might be useful or interesting.

On the 14th, while an easterly breeze continued, the water increased very much in breadth to the westward of the fixed floe to which we were attached; several lanes opening out, and leaving in some places a channel not less than three miles in width. At two P.M., the wind suddenly shifting to the westward, closed up every open space in a few hours, leaving not a drop of water in sight from the masthead in that direction. To this, however, we had no objection; for being now certain that the ice was at liberty to move in the western part of the strait, we felt confident that, if once our present narrow barrier were also detached, the ordinary changes of wind and tide would inevitably afford us opportunities of making progress. The westerly wind was accompanied by fine snow, which continued during the night, rendering the weather extremely thick, and our situation, consequently, very precarious, should the ice give way during the hours of darkness.

At four P.M. on the 15th we discovered our travellers upon the ice. A fresh party being despatched to meet and to relieve them of their knapsacks, Lieutenant Reid arrived safely on board at seven P.M., having, by a quick and most satisfactory journey, ascertained the immediate junction of the Strait of the Fury and Hecla with the Polar Sea.

The weather continuing very thick, with small snow, and there being now every reason to suppose a final disruption of the fixed ice at hand, I determined to provide against the danger to which, at night, this long-wished-for event would expose the ships, by adopting a plan that had often before occurred to me as likely to prove beneficial in an unknown and critical navigation such as this. This was nothing more than the establishment of a temporary lighthouse on shore during the night, which, in case of our getting adrift, would, together with the soundings, afford us that security which the sluggish traversing of the compasses otherwise rendered extremely doubtful. For this purpose, two steady men, provided with a tent and blankets, were landed on the east point of Amherst Island at sunset, to keep up some bright lights during the eight hours of darkness, and to be sent for at daylight in the morning.

On the 17th the wind freshened almost to a gale from the northwest, with thicker and more constant snow than before. The thermometer fell to 16-1/2° at six A.M., rose no higher than 20° in the course of the day, and got down to 12° at night, so that the young ice began now to form about us in great quantities.

Appearances had now become so much against our making any farther progress this season, as to render it a matter of very serious consideration whether we ought to risk being shut up during the winter in the middle of the strait, where, from whatever cause it might proceed, the last year's ice was not yet wholly detached from the shores, and where a fresh formation had already commenced, which there was too much reason to believe would prove a permanent one. Our wintering in the strait involved the certainty of being frozen up for eleven months; a sickening prospect under any circumstances, but in the present instance, probably, fatal to our best hopes and expectations.

The young ice had now formed so thick about the Fury, that it became rather doubtful whether we should get her out without an increase of wind to assist in extricating her, or a decrease of cold. At ten A.M., however, we began to attempt it, but by noon had not moved the ship more than half her own length. As soon as we had reached the outer point of the floe, in a bay of which we had been lying, we had no longer the means of applying a force from without, and, if alone, should therefore have been helpless, at least for a time. The Hecla, however, being fortunately unencumbered, in consequence of having lain in a less sheltered place, sent her boats with a hawser to the margin of the young ice; and ours being carried to meet it, by men walking upon planks, at considerable risk of going through, she at length succeeded in pulling us out; and, getting into clear water, or, rather, into less tough ice, at three P.M. we shaped a course to the eastward.

In our return to Igloolik we encountered a severe gale, but we luckily discovered it at half past ten A.M., though such was the difficulty of distinguishing this from Neerlo-nakto, or either from the mainland, on account of the snow that covered them, that, had it not been for the Esquimaux huts, we should not easily have recognised the place. At noon on the 24th we arrived off the point where the tents had first been pitched, and were immediately greeted by a number of Esquimaux, who came running down to the beach, shouting and jumping with all their might.

As soon as we had anchored I went on shore, accompanied by several of the officers, to pay the Esquimaux a visit, a crowd of them meeting us, as usual, on the beach, and greeting us with every demonstration of joy. They seemed disappointed that we had not reached Akkolee, for they always receive with eagerness any intelligence of their distant country people. Many of them, and Toolemak among the number, frequently repeated the expressions "*Owyak Na-o*!" (no summer), "*Took-too Na-o!*" (no reindeer), which we considered at the time as some confirmation of our own surmises respecting the badness of the past summer. When we told them we were come to winter among them, they expressed very great, and, doubtless, very sincere delight, and even a few *koyennas* (thanks) escaped them on the first communication of this piece of intelligence.

We found these people already established in their winter residences, which consisted principally of the huts before described, but modified in various ways both as to form and materials. The roofs, which were wholly wanting in the summer, were now formed by skins stretched tight across from side to side. This, however, as we soon afterward found, was only a preparation for the final winter covering of snow; and, indeed, many of the huts were subsequently lined in the same way within, the skins being attached to the sides and roof by slender threads of whalebone, disposed in large and regular stitches. Before the passages already described, others were now added, from ten to fifteen feet in length, and from four to five feet high, neatly constructed of large flat slabs of ice, cemented together by snow and water. Some huts also were entirely built of this material, of a rude circular or octangular form, and roofed with skins like the others. The light and transparent effect within these singular habitations gave one the idea of being in a house of ground glass, and their newness made them look clean, comfortable, and wholesome. Not so the more substantial bone huts, which, from their extreme closeness and accumulated filth, emitted an almost insupportable stench, to which an abundant supply of raw and half-putrid walrus' flesh in no small degree contributed. The passages to these are so low as to make it necessary to crawl on the hands and knees to enter them; and the floors of the apartments were in some places so slippery, that we could with difficulty pass and repass, without the risk of continually falling among the filth with which they were covered. These were the dirtiest, because the most durable, of any Esquimaux habitations we had yet seen; and it may be supposed they did not much improve during the winter. Some bitches with young were very carefully and conveniently lodged in small square kennels, made of four upright slabs of ice covered with a fifth, and having a small hole as a door in one of the sides. The canoes were also laid upon two slabs of this kind, like tall tombstones standing erect; and a quantity of spare slabs

lying in different places, gave the ground an appearance somewhat resembling that of a statuary's yard. Large stores of walrus' and seals' flesh, principally the former, were deposited under heaps of stones all about the beach, and, as we afterward found, in various other parts of the island, which showed that they had made some provision for the winter, though, with their enormous consumption of food, it proved a very inadequate one.

Leaving the Fury at seven A.M. on the 26th, and being favoured by a fresh easterly breeze, we soon cleared the southwest point of Igloolik; and, having passed the little island of *Oogli=aghioo*, immediately perceived to the W.N.W. of us a group of islands, so exactly answering the description of Coxe's Group, both in character and situation, as to leave no doubt of our being exactly in Captain Lyon's former track. Being still favoured by the wind and by the total absence of fixed ice, we reached the islands at eleven A.M., and, after sailing a mile or two among them, came at once in sight of two bluffs, forming the passage pointed out by Toolemak, and then supposed to be called *Khemig*. The land to the north, called by the Esquimaux *Khiadlaghioo*, was now found to be, as we had before conjectured, the southern shore of Richards's Bay. The land on our left or to the southward proved an island, five miles and a quarter in length, of the same bold and rugged character as the rest of this numerous group, and by far the largest of them all. To prevent the necessity of reverting to this subject, I may at once add, that two or three months after this, on laying before Ewerat our own chart of the whole coast, in order to obtain the Esquimaux names, we discovered that the island just mentioned was called *Khemig*, by which name Ormond Island was *also* distinguished; the word expressing, in the Esquimaux language, anything stopping up the mouth of a place or narrowing its entrance, and applied also more familiarly to the cork of a bottle, or a plug of any kind. And thus were reconciled all the apparent inconsistencies respecting this hitherto mysterious and incomprehensible word, which had occasioned us so much perplexity.

At daylight on the 27th we crossed to a small island at the margin of the ice; and leaving the boat there in charge of the coxswain and two of the crew, Mr. Ross and myself, accompanied by the other two, set out across the ice at seven A.M. to gain the main land, with the intention of determining the extent of the inlet by walking up its southern bank. After an hour's good travelling, we landed at eight A.M., and had scarcely done so when we found ourselves at the very entrance, being exactly opposite the place from which Mr. Richards and myself had obtained the first view of the inlet. The patch of ice on which we had been walking, and which was about three miles long, proved the only remains of last year's formation; so forcibly had nature struggled to get rid of this before the commencement of a fresh winter.

Walking quickly to the westward along this shore, which afforded excellent travelling, we soon perceived that our business was at an end, the inlet terminating a very short distance beyond where I had first traced it, the apparent turn to the northward being only that of a shallow bay.

Having thus completed our object, we set out on our return, and reached the boat at three P.M., after a walk of twenty miles. The weather fortunately remaining extremely mild, no young ice was formed to obstruct our way, and we arrived on board at noon the following day, after an examination peculiarly satisfactory, inasmuch as it proved the non-existence of *any* water communication with the Polar Sea, however small and unfit for the navigation of ships, to the southward of the Strait of the Fury and Hecla.

I found from Captain Lyon on my return, that, in consequence of some ice coming in near the ships, he had shifted them round the point into the berths-where it was my intention to place them during the winter; where they now lay in from eleven to fourteen fathoms, at the distance of three cables' length from the shore.

It was not till the afternoon of the 30th that the whole was completed, and the Fury placed in the best berth for the winter that circumstances would permit. An early release in the spring could here be scarcely expected, nor, indeed, did the nature of the ice about us, independently of situation, allow us to hope for it; but both these unfavourable circumstances had been brought about by a contingency which no human power or judgment could have obviated, and at which, therefore, it would have been unreasonable, as well as useless, to repine. We lay here in rather less than five fathoms, on a muddy bottom, at the distance of one cable's length from the eastern shore of the bay.

The whole length of the canal we had sawed through was four thousand three hundred and forty-three feet; the thickness of the ice, in the level and regular parts, being from twelve to fourteen inches, but in many places, where a separation had occurred, amounting to several feet. I cannot sufficiently do justice to the cheerful alacrity with which the men continued this laborious work during thirteen days, the thermometer being frequently at *zero*, and once as low as-9° in that interval. It was satisfactory, moreover, to find, that in the performance of this, not a single addition had been made to the sick-list of either ship, except by the accident of one man's falling into the canal, who returned to his duty a day or two afterward.

While our people were thus employed, the Esquimaux had continued to make daily visits to the ships, driving down on sledges with their wives and children, and thronging on board in great numbers, as well to gratify their curiosity, of which they do not, in general, possess much, as to pick up whatever trifles we could afford to bestow upon them. These people were at all times ready to assist in any work that was going on, pulling on the ropes, heaving at the windlass, and sawing the ice, sometimes for an hour together. They always accompanied their exertions by imitating the sailors in their peculiar manner of "singing out" when hauling, thus, at least, affording the latter constant amusement, if not any very material assistance, during their labour.

Among the numerous young people at Igloolik, there were some whose activity on this and other occasions particularly struck us. Of these I shall, at present, only mention two: *N=o=ogloo*, an adopted son of Toolemak, and *K=ong~ol~ek*, a brother of "John Bull." These two young men, who were from eighteen to twenty years of age, and stood five feet seven inches in height, displayed peculiar *tact* in acquiring our method of heaving at the windlass, an exercise at which *K=ong~ol~ek* became expert after an hour or two's practice. The countenances of both were handsome and prepossessing, and their limbs well-formed and muscular; qualities which, combined with their activity and manliness, rendered them (to speak like a naturalist), perhaps, as fine specimens of the human race as almost any country can produce.

Some of our Winter Island friends had now arrived also, being the party who left us there towards the end of the preceding May, and whom we had afterward overtaken on their journey to the northward. They were certainly all very glad to see us again, and, throwing off the Esquimaux for a time, shook us heartily by the hand, with every demonstration of sincere delight. Ewerat, in his quiet, sensible way, which was always respectable, gave us a circumstantial account of every event of his journey. On his arrival at *Owlitteweek*, near which island we overtook him, he had buried the greater part of his baggage under heaps of stones, the ice no longer being fit for dragging the sledge upon. Here also he was happily eased of a still greater burden, by the death of his idiot boy, who thus escaped the miseries to which a longer life must, among these people, have inevitably exposed him. As for that noisy little fellow, "John Bull" (*Kooillitiuk*), he employed almost the whole of his first visit in asking every one, by name, "How d'ye do, Mr. So and So?" a question which had obtained him great credit among our people at Winter Island. Being a very important little personage, he also took great pride in pointing out various contrivances on board the ships, and explaining to the other Esquimaux their different uses, to which the latter did not fail to listen with all the attention due to so knowing an oracle.

CHAPTER XIII.

Preparations for the Winter.—Various Meteorological Phenomena to the close of the year 1822.—Sickness among the Esquimaux.—Meteorological Phenomena to the end of March.

November.—The measures now adopted for the security of the ships and their stores, for the maintenance of economy, cleanliness, and health, and for the prosecution of the various observations and experiments, being principally the same as those already detailed in the preceding winter's narrative, I shall be readily excused for passing them over in silence.

The daily visits of the Esquimaux to the ships throughout the winter afforded, both to officers and men, a fund of constant variety and never-failing amusement, which no resources of our own could possibly have furnished. Our people were, however, too well aware of the advantage they derived from the schools not to be desirous of their re-establishment, which accordingly took place soon after our arrival at Igloolik; and they were glad to continue this as their evening occupation during the six succeeding months.

The year closed with the temperature of-42°, the mean of the month of December having been 27° 8', which, taken in connexion with that of November, led us to expect a severe winter.

About the middle of the month of December several of the Esquimaux had moved from the huts at Igloolik, some taking up their quarters on the ice at a considerable distance to the northwest, and the rest about a mile outside the summer station of the tents. At the close of the year from fifty to sixty individuals had thus decamped, their object being, like that of other savages on *terra firma*, to increase their means of subsistence by covering more ground; their movements were arranged so quietly that we seldom heard of their intentions till they were gone. At the new stations they lived entirely in huts of snow; and the northerly and easterly winds were considered by them most favourable for their fishing, as these served to bring in the loose ice, on which they principally kill the walruses.

Towards the latter end of January [1823], the accounts from the huts, as well from the Esquimaux as from our own people, concurred in stating that the number of the sick, as well as the seriousness of their complaints, was rapidly increasing there. We had, indeed, scarcely heard of the illness of a woman named *Kei-m=o=o-seuk*, who, it seemed, had lately miscarried, when an account arrived of her death. She was one of the two wives of *Ooyarra*, one of Captain Lyon's fellow-travellers in the summer, who buried her in the snow, about two hundred yards from the huts, placing slabs of the same perishable substance over the body, and cementing them by pouring a little water in the interstices. Such an interment was not likely to be a very secure one; and, accordingly, a few days after, the hungry dogs removed the snow and devoured the body.

Captain Lyon gave me the following account of the death and burial of another poor woman and her child:

> "The mother, Poo-too-alook, was about thirty-five years of age, the child about three years—yet not weaned, and a female; there was also another daughter, Shega, about twelve or thirteen years of age, who, as well as her father, was a

most attentive nurse. My hopes were but small, as far as concerned the mother; but the child was so patient that I hoped, from its docility, soon to accustom it to soups and nourishing food, as its only complaint was actual starvation. I screened off a portion of my cabin, and arranged some bedding for them, in the same manner as the Esquimaux do their own. Warm broth, dry bedding, and a comfortable cabin, did wonders before evening, and our medical men gave me great hopes. As an introduction to a system of cleanliness, and preparatory to washing the sick, who were in a most filthy state, I scrubbed Shega and her father from head to foot, and dressed them in new clothes. During the night I persuaded both mother and child, who were very restless, and constantly moaning, to take a few spoonfuls of soup. On the morning of the 24th the woman appeared considerably improved, and she both spoke and ate a little. As she was covered with so thick a coating of dirt that it could be taken off in scales, I obtained her assent to wash her face and hands a little before noon. The man and his daughter now came to my table to look at some things I had laid out to amuse them; and, after a few minutes, Shega lifted up the curtain to look at her mother, when she again let it fall, and tremblingly told us she was dead.

"The husband sighed heavily, the daughter burst into tears, and the poor little infant made the moment more distressing by calling in a plaintive tone on its mother, by whose side it was lying. I determined on burying the woman on shore, and the husband was much pleased at my promising that the body should be drawn on a sledge by men instead of dogs; for, to our horror, Takkeelikkeeta had told me that dogs had eaten part of Keimooseuk, and that, when he left the huts with his wife, one was devouring the body as he passed it.

"Takkeelikkeeta now prepared to dress the dead body, and, in the first place, stopped his nose with deer's hair and put on his gloves, seeming unwilling that his naked hand should come in contact with the corpse. I observed, in this occupation, his care that every article of dress should be as carefully placed as when his wife was living; and, having drawn the boots on the wrong legs, he pulled them off again and put them properly. This ceremony finished, the deceased was sewed up in a hammock, and, at the husband's urgent request, her face was left uncovered. An officer who was present at the time agreed with me in fancying that the man, from his words and actions, intimated a wish that the living child might be enclosed with its mother. We may have been mistaken, but there is an equal probability that we were right in our conjecture; for, according to Crantz and Egede, the Greenlanders were in the habit of burying their motherless infants, from a persuasion that they must otherwise starve to death, and also from being unable to bear the cries of the little ones while lingering for several days without sustenance; for no woman will give them any share of their milk, which they consider as the exclusive property of their own offspring. My dogs being carefully tied up at the man's request, a party of our people, accompanied by me, drew the body to the shore, where we made a grave, about a foot deep, being unable to get lower on account of the frozen earth. The body was placed on its back, at the husband's request, and he then stepped into the grave and cut all the stitches of the hammock, although without throwing it open, seeming to imply that the dead should be left unconfined. I laid a woman's knife by the side of the body, and we filled up the grave, over which we also piled a quantity of heavy stones, which no animal could remove. When all was done and we returned to the ship, the man lingered a few minutes behind us and repeated two or three sentences, as if addressing himself to his departed wife; he then silently followed. We found Shega quite composed, and attending her little sister, between whose eyebrows she had made a spot with soot, which I learned was because, being unweaned, it must certainly die. During the night my little charge called on its mother without intermission, yet the father slept as soundly until morning as if nothing had happened.

"All who saw my patient on the morning of the 25th gave me great hopes; she could swallow easily, and was even strong enough to turn or sit upright without assistance, and in the forenoon slept very soundly. At noon, the sister of the deceased, Ootooguak, with her husband and son, came to visit me. She had first gone to the Fury, and was laughing on deck, and, at her own request, was taken below, not caring to hurry herself to come to the house of mourning. Even when she came to the Hecla she was in high spirits, laughing and capering on deck as if nothing had happened; but, on being shown to my cabin, where Shega, having heard of her arrival, was sitting crying in readiness, she began with her niece to howl most wofully. I, however, put a stop to this ceremony, for such it certainly was, under the plea of disturbing the child. The arrival of a pot of smoking walrus-flesh soon brought smiles on all faces but that of Takkeelikkeeta, who refused food and sat sighing deeply; the others ate, chatted, and laughed as if nothing but eating was worth thinking of. Dinner being over, I received thanks for burying the woman in such a way that 'neither wolves, dogs, nor foxes could dig her up and eat her,' for all were full of the story of Keimooseuk, and even begged some of our officers to go to Igloolik and shoot the offending dogs. A young woman named Ablik, sister to Ooyarra, was induced, after much entreaty and a

very large present of beads, to offer her breast to the sick child, but the poor little creature pushed it angrily away. Another woman was asked to do the same; but, although her child was half weaned, she flatly refused.

"The aunt of my little one seeming anxious to remain, and Shega being now alone, I invited her to stop the night. In the evening the child took meat and jelly, and sat up to help itself, but it soon after resumed its melancholy cry for its mother. At night my party had retired to sleep; yet I heard loud sighing occasionally, and, on lifting the curtain, I saw Takkeelikkeeta standing and looking mournfully at his child. I endeavoured to compose him, and he promised to go to bed; but, hearing him again sighing in a few minutes, I went and found the poor infant was dead, and that its father had been some time aware of it. He now told me it had seen its mother the last time it called on her, and that she had beckoned it to Khil-la (Heaven), on which it instantly died. He said it was 'good' that the child was gone; that no children outlived their mothers; and that the black spot, which Shega had frequently renewed, was quite sufficient to ensure the death of the infant.

"My party made a hearty breakfast on the 26th, and I observed they did not scruple to lay the vessel containing the meat on the dead child, which I had wrapped in a blanket; and this unnatural table excited neither disgust nor any other feeling among them more than a block of wood could have done. We now tied up all the dogs, as Takkeelikkeeta had desired, and took the child about a quarter of a mile astern of the ships, to bury it in the snow; for the father assured me that her mother would cry in her grave if any weight of stones or earth pressed on her infant. She herself, he feared, had already felt pain from the monument of stones which we had laid upon her. The snow in which we dug the child's grave was not above a foot deep, yet we were not allowed to cut into the ice, or even use any slabs of it in constructing the little tomb. The body, wrapped in a blanket, and having the face uncovered, being placed, the father put the slings by which its deceased mother had carried it on the right side, and, in compliance with the Esquimaux custom of burying toys and presents with their dead, I threw in some beads. A few loose slabs of snow were now placed so as to cover, without touching, the body, and with this very slight sepulchre the father was contented, although a fox could have dug through it in half a minute. We, however, added more snow, and cemented all by pouring about twenty buckets of water, which were brought from the ship, on every part of the mound. I remarked that, before our task was completed, the man turned and walked quietly to the ships.

"During the last two days I obtained some information with respect to mourning ceremonies, or, at all events, such as related to the loss of a mother of a family; three days were to be passed by the survivors without their walking on the ice, performing any kind of work, or even having anything made for them. Washing is out of the question with Esquimaux at most times, but now I was not allowed to perform the necessary ablutions of their hands and faces, however greasy or dirty they might be made by their food; the girl's hair was not to be put into pig-tails, and everything was neglected; Takkeelikkeeta was not to go sealing until the summer. With the exception of an occasional sigh from the man, there were no more signs of grief; our mourners ate, drank, and were merry, and no one would have supposed they ever had wife, mother, or sister. When the three days (and it is singular that such should be the time) were expired, the man was to visit the grave; and, having talked with his wife, all duties were to be considered as over. The 28th was our third day, but a heavy northerly gale and thick drift prevented our visiting the grave. The 29th, although not fine, was more moderate, and I accompanied him at an early hour. Arriving at the grave, he anxiously walked up to it and carefully sought for foot-tracks on the snow; but, finding none, repeated to himself, 'No wolves, no dogs, no foxes; thank ye, thank ye.' He now began a conversation, which he directed entirely to his wife. He called her twice by name, and twice told her how the wind was blowing, looking at the same time in the direction from whence the drift was coming. He next broke forth into a low monotonous chant, and, keeping his eyes fixed upon the grave, walked slowly round it in the direction of the sun four or five times, and at each circuit he stopped a few moments at the head. His song was, however, uninterrupted. At the expiration of about eight minutes he stopped, and, suddenly turning round to me, exclaimed, '*Tugw~a*' (that's enough), and began walking back to the ship. In the song he chanted I could frequently distinguish the word *Koyenna* (thank you), and it was occasionally coupled with the Kabloonas. Two other expressions, both the names of the spirits or familiars of the Annatko, Toolemak, were used a few times; but the whole of the other words were perfectly unintelligible to me.

"I now sent Shega and her father home, well clothed and in good case. The week they had passed on board was sufficient time to gain them the esteem of every one, for they were the most quiet, inoffensive beings I ever met with; and, to their great credit, they never once begged. The man was remarkable for his extraordinary fondness for treacle, sugar, salt, acids, and spruce-beer, which the others of the tribe could not even smell without disgust; and he walked about to

the different messes in hopes of being treated with these delicacies. Shega was a timid, well-behaved girl, and generally remained eating in my cabin, for I am confident of speaking far within bounds when I say she got through eight pounds of solids per diem. As far as gratitude could be shown by Esquimaux, which is saying 'koyenna' on receiving a present, my friends were sensible of the attentions I had shown them."

March 5th.—The Esquimaux were about this time rather badly off for food, in consequence of the winds having of late been unfavourable for their fishery; but this had only occurred two or three times in the course of the winter, and never so much as to occasion any great distress. It is certain, indeed, that the quantity of meat which they procured between the 1st of October and the 1st of April was sufficient to furnish about double the population of working people who were moderate eaters, and had any idea of providing for a future day; but to individuals who can demolish four or five pounds at a sitting, and at least ten in the course of a day,[003] and who never bestow a thought on to-morrow, at least with a view to provide for it by economy, there is scarcely any supply which could secure them from occasional scarcity. It is highly probable that the alternate feasting and fasting to which the gluttony and improvidence of these people so constantly subject them, may have occasioned many of the complaints that proved fatal during the winter; and on this account we hardly knew whether to rejoice or not at the general success of their fishery. Certain it is, that on a particular occasion of great plenty, one or two individuals were seen lying in the huts, so distended by the quantity of meat they had eaten that they were unable to move, and were suffering considerable pain, arising solely from this cause. Indeed, it is difficult to assign any other probable reason for the lamentable proportion of deaths that took place during our stay at Igloolik, while, during a season of nearly equal severity, and of much greater privation as to food, at Winter Island, not a single death occurred. Notwithstanding their general plenty, there were times in the course of this winter, as well as the last, when our bread-dust was of real service to them, and they were always particularly desirous of obtaining it for their younger children. They distinguished this kind of food by the name of *k=an~ibr~o~ot*, and biscuit or soft bread by that of *sh=eg~al~ak*, the literal meaning of which terms we never could discover, but supposed them to have some reference to their respective qualities.

Our lengthened acquaintance with the Esquimaux and their language, which a second winter passed among them afforded, gave us an opportunity of occasionally explaining to them in some measure in what direction our country lay, and of giving them some idea of its distance, climate, population, and productions. It was with extreme difficulty that these people had imbibed any correct idea of the superiority of rank possessed by some individuals among us; and when at length they came into this idea, they naturally measured our respective importance by the riches they supposed each to possess. The ships they considered, as a matter of course, to belong to Captain Lyon and myself, and on this account distinguished them by the names of *Lyon-oomiak* and *Paree-oomiak*; but they believed that the boats and other parts of the furniture were the property of various other individuals among us. They were, therefore, not a little surprised to be seriously assured that neither the one nor the other belonged to any of us, but to a much richer and more powerful person, to whom we all paid respect and obedience, and at whose command we had come to visit and enrich the *Innuees*. Ewerat, on account of his steadiness and intelligence, as well as the interest with which he listened to anything relating to *Kabloonas*, was particularly fit to receive information of this nature; and a general chart of the Atlantic Ocean, and of the lands on each side, immediately conveyed to his mind an idea of the distance we had come, and the direction in which our home lay. This and similar information was received by Ewerat and his wife with the most eager astonishment and interest, not merely displayed in the "hei-ya!" which constitutes the usual extent of Esquimaux admiration, but evidently enlarging their notion respecting the other parts of the world, and creating in them ideas which could never before have entered their minds. By way of trying their inclinations, I asked them if they would consent to leave their own country, and, taking with them their children, go to live in ours, where they would see no more *Innuees*, and never eat any more seal or walrus. To all this they willingly agreed, and with an earnestness that left no doubt of their sincerity; Togolat adding, in an emphatic manner, "*Shagloo ooagoot nao*" (we do not tell a falsehood), an expression of peculiar force among them. The eagerness with which they assented to this proposal made me almost repent my curiosity, and I was glad to get out of the scrape by saying, that the great personage of whom I had spoken would not be pleased at my taking them home without having first obtained his permission. Information of the kind alluded to was subsequently given to many of the other Esquimaux, some of whom could at length pronounce the name of "King George" so as to be tolerably intelligible.

The weather was now so pleasant, and the temperature in the sun so comfortable to the feelings when a shelter could be found from the wind, that we set up various games for the people, such as cricket, football, and quoits, which some of them played for many hours during the day.

At the close of the month of March, we were glad to find that its mean temperature, being-19.75°, when taken in conjunction with those of January and February, appeared to constitute a mild winter for this latitude. There were, besides, some other circumstances, which served to distinguish this winter from any preceding one we had passed in the ice. One of the most remarkable of these was the frequent occurrence of hard, well-defined clouds, a feature we had hitherto considered as almost unknown in the winter sky of the Polar Regions. It is not improbable that these may have, in part, owed their origin to a large extent of sea keeping open to the southeastward throughout the winter, though they not only occurred with the wind from that quarter, but also with the colder weather, usually accompanying northwesterly breezes.

About the time of the sun's reappearance, and for a week or two after it, these clouds were not more a subject of admiration to us on account of their novelty, than from the glowing richness of the tints with which they were adorned. It is, indeed, scarcely possible for nature, in any climate, to produce a sky exhibiting greater splendour and richness of colouring than we at times experienced in the course of this spring. The edges of the clouds near the sun often presented a fiery or burning appearance, while the opposite side of the heavens was distinguished by a deep purple about the horizon, gradually softening upward into a warm yet delicate rose-colour of inconceivable beauty. These phenomena have always impressed us the most forcibly about the time of the sun's permanent setting and that of his reappearance, especially the latter, and have invariably furnished a particular subject of conversation to us at those periods; but I do not know whether this is to be attributed so much to the colouring of the sky exactly at the times alluded to, as to our habit of setting on every enjoyment a value proportioned to its scarceness and novelty.

Another peculiarity observed in this winter was the rare occurrence of the Aurora Borealis, and the extraordinary poorness of its display whenever it did make its appearance. It was almost invariably seen to the southward, between an E.S.E. and a W.S.W. bearing, generally low, the stationary patches of it having a tendency to form an irregular arch, and not unfrequently with coruscations shooting towards the zenith. When more diffused it still kept, in general, on the southern side of the zenith; but never exhibited any of those rapid and complicated movements observed in the course of the preceding winter, nor, indeed, any feature that renders it necessary to attempt a particular description. The electrometer was frequently tried, by Mr. Fisher, at times when the state of the atmosphere appeared the most favourable, but always without any sensible effect being produced on the gold leaf.

The difference in the temperature of the day and night began to be sensible as early as the first week in March, and the daily range of the thermometer increased considerably from that time. The increase in the average temperature of the atmosphere, however, is extremely slow in these regions, long after the sun has attained a considerable meridian altitude; but this is in some degree compensated by the inconceivable rapidity with which the days seem to lengthen when once the sun has reappeared. There is, indeed, no change which continues to excite so much surprise as that from almost constant darkness to constant day; and this is, of course, the more sudden and striking, in proportion to the height of the latitude. Even in this comparatively low parallel, the change seemed sufficiently remarkable; for, soon after the middle of March, only ten weeks after the sun's reappearance above the horizon, a bright twilight appeared at midnight in the northern heavens.

CHAPTER XIV.

Various Journeys to the Esquimaux Stations.—Preparations for the Hecla's Return to England.—Remarkable Halos, &c.—Shooting Parties stationed at Arlagnuk.—Journeys to Quilliam Creek.—Arrival of Esquimaux from the Northward.—Account of a Journey to the Westward for the purpose of reaching the Polar Sea.—The Esquimaux report two Fishing-ships having been Wrecked.—A Journey performed to Cockburn Island.—Discovery of Murray Maxwell Inlet.

About the first and second weeks in April, the Esquimaux were in the habit of coming up the inlet, to the southward of the ships, to kill the *neitiek,* or small seal, which brings forth its young at this season, and probably retires into sheltered places for that purpose. Besides the old seals, which were taken in the manner before explained, the Esquimaux also caught a great number of young ones, by fastening a hook to the end of a staff, and hooking them up from the sea-hole after the mother had been killed. Our large fishhooks were useful to them for this purpose, and the beautiful silvery skins of these young animals were occasionally brought to the ships as articles of barter: those of the foetus of the *neitiek* are more yellow than the others, and, indeed, both in colour and texture, very much resemble raw silk.

The first ducks noticed by the Esquimaux were mentioned to us on the 16th, and a few days afterward immense flocks appeared, all of the king-duck species, about the open water near the margin of the ice; but our distance from this was so great, that we never saw any of them, and the weather was yet too cold to station a shooting-party in that neighbourhood. Dovekies were now also numerous, and a gull or two, of the silvery species, had been seen.

On the 20th, after divine service, I took the opportunity of Captain Lyon and his people being on board the Fury, to communicate to the assembled officers and ships' companies my intentions respecting the future movements of the expedition; at the same time requesting Captain Lyon to furnish me with a list of any of the Hecla's men that might volunteer to remain out, as it would be necessary to fill up, or, perhaps, even to increase the complement of the Fury.

Our preparations were therefore immediately commenced, a twelvemonths' provision and other stores being received by the Fury, and various necessary exchanges made in anchors, cables, and boats; and, in the course of a single fortnight, the whole of these were transported from ship to ship without any exposure or labour to the men outside their respective ships, our invaluable dogs having performed it for us with astonishing ease and expedition. It was a curious sight to

watch these useful animals walking off with a bower-anchor, a boat, or a topmast, without any difficulty; and it may give some idea of what they are able to perform, to state, that nine dogs of Captain Lyon's dragged sixteen hundred and eleven pounds a distance of seventeen hundred and fifty yards in nine minutes, and that they worked in a similar way between the ships for seven or eight hours a day. The road was, however, very good at this time, and the dogs the best that could be procured.

The wind settling to the southward for a few days near the end of April, brought an increased, and, to us a comfortable degree of warmth; and it was considered an event of some interest, that the snow which fell on the 29th dissolved as it lay on our decks, being the first time that it had done so this season. We now also ventured to take off some of the hatches for an hour or two in the day, and to admit some fresh air, a luxury which we had not known for six months. The Esquimaux, about this time, began to separate more than before, according to their usual custom in the spring; some of them, and especially our Winter Island acquaintance, setting off to the little islands called Oolglit, and those in our neighbourhood removing to the northeast end of Igloolik, to a peninsula called *Keiyuk-tarruoke*, to which, the open water was somewhat nearer. These people now became so much incommoded by the melting of their snow-huts, that they were obliged to substitute skins as the roofs, retaining, however, the sides and part of the passages of the original habitations. These demi-tents were miserable enough while in this state, some of the snow continually falling in, and the floor being constantly wet by its thawing.

Favourable as the first part of the month of May had appeared with respect to temperature, its close was by no means equally promising, and on the first of June, at two A.M., the thermometer stood at +8°. This unusually low temperature, much exceeding in severity anything we had experienced at Melville Island at the same season, rendered it necessary to defer for a time a journey which it was proposed that Captain Lyon should undertake, across the land to the westward at the head of Quilliam Creek, and thence, by means of the ice, along the shores of the Polar Sea, in the direction towards Akkoolee. The object of this journey, like that of most of the others which had been performed in various directions, was to acquire all the information within our reach of those parts of the continental coast to which the ships were denied access; and it was hoped that, at the coming season, some judgment might be formed of the probable state of the ice along that shore in the summer, by which the future movements of the Fury might be influenced. Captain Lyon was to be accompanied by two men, and a complete supply of every kind for a month's travelling was to be drawn on a sledge by ten excellent dogs, which he had taken great pains to procure and train for such occasions. As I was desirous of ascertaining, beyond any doubt, the identity of the *Khemig*, to which I had sailed in the autumn, with that seen by Captain Lyon on his journey with the Esquimaux, I determined to accompany the travellers on my sledge as far as the head of Quilliam Creek, and by victualling them thus far on their journey, enable them to gain a day or two's resources in advance. Another object which I had in view was to endeavour to find a lake mentioned by Toolemak; who assured me that, if I could dig holes in the ice, which was five feet thick, plenty of large salmon might be caught with hooks, an experiment which seemed at least well worth the trying.

On the 7th, the weather being more favourable than before, Captain Lyon and myself set out to the westward at half past eleven A.M., and the ice proving level, reached Khemig at half past five; when it was satisfactory to find that the route followed by Captain Lyon on his journey with Toolemak was precisely that which I had supposed, every feature of the land, of which the fog had before scarcely allowed him a glimpse, being now easily recognised, and every difficulty cleared up. Proceeding at eight A.M. on the 8th, we soon met with numerous tracks of deer upon the ice, which, together with the seals that lay in great numbers near their holes, expedited our journey very considerably, the dogs frequently setting off at full gallop on sniffing one of them. Landing at the head of Quilliam Creek at half past one, we took up an advantageous position for looking about us, in order to determine on the direction of Captain Lyon's route over land, which all the Esquimaux concurred in representing as a laborious one. We met with several reindeer immediately on our landing; and, while in pursuit of them, Captain Lyon discovered a lake two or three miles long and a quarter of a mile broad, a short distance from the tents, which we concluded to be that of which I was in search. As some of our party were suffering from snow-blindness, and, what is scarcely less painful, severe inflammation of the whole face, occasioned by the heat of the sun, we remained here for the rest of this day to make our final arrangements.

At nine A.M. on: the 9th we struck the tents, and Captain Lyon set off to the southward, while we drove over to the lake, which is one mile N.N.W. of the head of the creek, and, after three or four hours' labour, completed a hole through the ice, which was very dark-coloured, brittle, and transparent, and, as Toolemak had said, about five feet thick. The water, which was eleven fathoms deep, flowed up within a couple of inches of the surface, over which lay a covering of snow eighteen inches in depth. In confident hope of now obtaining some fish, we proceeded exactly according to Toolemak's instructions; but, after four-and-twenty hours' trial at all depths, not even a single nibble rewarded our labour.

Coasting the south shore, on which I wished to obtain observations and angles for the survey, we the next day entered a small bay, where we pitched our tent; our whole party being now so snow-blind with endeavouring to distinguish the land from the ice (so entirely were both covered with snow), that we could literally no longer muster one eye among three of us to direct the sledge. I found a handkerchief tied close, but not too tightly, round the eyes for a whole night, to be a more effectual remedy for this disagreeable complaint than any application of eyewater; and my companions being induced to try the same experiment, derived equal benefit from it. Reaching

Arlagnuk towards evening of the 13th, we found that our parties had each thirty or forty ducks ready for the ships; and that the Esquimaux had lately altogether deserted this station, owing to the scarcity of walruses, and had removed to Ooglit, where these animals were said to be abundant at this season. Leaving our people on the morning of the 14th, I returned on board soon after noon, where I found that nothing worthy of particular notice had occurred during my absence.

On the 20th three or four other Esquimaux, strangers to us, arrived at Igloolik from the northward, and we found from two young men who visited us on the following day, that they came from *Too-n=o=o-nek*, a place undoubtedly situated somewhere on the western coast of Baffin's Bay, or about some of the inlets communicating with it, as they had there seen several *Kabloona* ships employed in killing whales. It is not improbable, from the various accounts of the direction and distance of Toonoonek, communicated by the Esquimaux through the usual medium of their charts, that the part of the seacoast so named lies at no great distance from Pond's Bay, in lat. 72-1/2°, which has lately become a common rendezvous of our Davis's Strait fishermen. Of this fact we had, in the course of the winter, received intimation from these people from time to time, and had even some reason to believe that our visit to the Esquimaux of the River Clyde in 1820 was known to them; but what most excited our interest at this time was the sledge brought by the new comers, the runner being composed of large single pieces of wood, one of them painted black over a lead-coloured priming, and the cross-bars consisting of heading-pieces of oak-buts, one flat board with a hinge-mark upon it the upper end of a skid or small boat's davit, and others that had evidently and recently been procured from some ship. On one of the heading-pieces we distinguished the letters *Brea—*, showing that the cask had, according to the custom of the whalers, contained bread on the outward passage. The nature of all these materials led us to suppose that it must have been procured from some vessel wrecked or damaged on the coast; and this suspicion was on the following day confirmed by our obtaining information that, at a place called Akk=o=odneak, a single day's journey beyond Toonoonek, two ships like ours had been driven on shore by the ice, and that the people had gone away in boats equipped for the purpose, leaving one ship on her beam ends, and the other upright, in which situation the vessels were supposed still to remain.[004]

We observed on this occasion as on our first arrival at Igloolik, that the new Esquimaux were obliged to have recourse to the others to interpret to them our meaning, which circumstance, as it still appeared to me, was to be attributed, as before, to our speaking a kind of broken Esquimaux that habit had rendered familiar to our old acquaintance, rather than to any essential difference in the true languages of the two people.

Toolemak having some time before promised to accompany me to the fishing-place, taking with him his wife, together with his sledge, dogs, and tent, made his appearance from Ooglit on the 23d, bringing, however, only the old lady and abundance of meat. Having lent him a tent and two of our dogs, and hired others to complete his establishment, we set out together at five A.M. on the 24th, my own party consisting of Mr. Crozier and a seaman from each ship. Arriving at Khemig towards noon, we found among the islands that the ice was quite covered with water, owing, probably, to the radiation of heat from the rocks. The weather proved, indeed, intensely hot this day, the thermometer in the shade, at the ships, being as high as 51°, and the land in this neighbourhood preventing the access of wind from any quarter. The travelling being good beyond this, we arrived within four or five miles of the head of Quilliam Creek at ten P.M., where we pitched the tents for the night. In this day's journey ten dogs had drawn my sledge a distance of forty statute miles since the morning, the weight on the sledge being about twelve hundred pounds, and half of the road very indifferent. It is the custom of the Esquimaux, even when meat is most abundant, to feed these invaluable animals only once a day, and that in the evening, which they consider to agree with them better than more frequent meals; we always observed the same practice with ours, and found that they performed their journeys the better for it.

On the morning of the 25th, while passing close to a point of land, Toolemak suddenly stopped his sledge, and he and his wife walked to the shore, whither I immediately followed them. The old woman, preceding her husband, went up to a circle of stones, of which there were two or three on the spot, and, kneeling down within it, cried most loudly and bitterly for the space of two or three minutes, while Toolemak also shed abundant tears, but without any loud lamentation. On inquiring presently after, I found that this was the spot on which their tent had been pitched in the summer, and that the bed-place on which the old woman knelt had been that of their adopted son *Noogloo*, whose premature death we had all so much regretted. The grief displayed on this occasion seemed to have much sincerity in it, and there was something extremely touching in this quiet but unaffected tribute of sorrow on the spot, which so forcibly reminded them of the object of their parental affection. I have much gratification in adding, in this place, another circumstance, which, though trifling in itself, deserves to be noticed as doing honour to these people's hearts. They had always shown particular attachment to a dog they had sold me, and which bore the same name as a young man, a son of their own, whom they had formerly lost. In the course of this journey, the old woman would constantly call the dog "Eerninga" (son), which the affectionate animal never failed to repay by jumping up and licking her face all over, whenever his trace would allow him; and at night, after Toolemak had fed his own dogs, he frequently brought to our tent an extra piece of meat, expressly for *Ann=owtalik*, to whom these poor people seemed to take a mournful pleasure in now transferring their affection.

Landing close to the head of the inlet on the south shore, we proceeded with difficulty a couple of miles over land till we came to a river, the limits of which the warmth of the weather was just

rendering discernible, and which, our guides informed us was to be our fishing place. It was interesting to observe that, in every case of doubt as to the situation of a place, the best route, or the most advisable method of overcoming any difficulty, Toolemak invariably referred to his wife; and a consultation of some minutes was held by these two before they would determine on what was to be done, or even return an answer to our questions respecting it. Pitching our tents upon the banks of the river, we went upon the ice, which was still quite solid except close to the shores, and soon made two or three holes for a hook and line, the thickness of the ice in the middle being from six to seven feet. The Esquimaux fishhook is generally composed of a piece of ivory, having a hook of pointed iron, without a barb, let into it. The ivory they consider useful in attracting the salmon, but they also bait the hook with a piece of blubber well cleared of its oil by chewing, and securely tied on with a thread of sinew, so as to cover nearly the whole of the hook. A small piece of bone, reindeer's horn, or wood, serves as a rod, and with this they keep the bait constantly in motion up and down, the bait being from one to three feet below the surface of the ice. Previous, however, to commencing the fishery, the old lady, who took the principal part in this employment, muttered some words, to me altogether incomprehensible, over the hole, to which Toolemak, in a formal manner, added something about fish and *Kabloonas*; and the whole of this preparatory ceremony seemed intended to propitiate the spirit to whose department the salmon particularly belonged. The lady (for it seems she is a female) did not, however, appear to lend a very favourable ear to our wants or Toolemak's rhetoric; for, after many hours' patient trial on this and the following day, only two fish were seen and one caught to repay our labour.

On the 27th Toolemak and his wife went over to a small shallow lake, on the opposite side of the river, where they caught three or four fish of the salmon kind, but none more than one pound in weight. He then came back to the tent, and made a small spear according to their own fashion; but with this, to his great disappointment, he could not strike a single fish. A sort of *fish-gig*, which we made out of four large hooks lashed back to back at the end of a light staff, succeeded much better, the bait being played in the usual manner to attract the fish, which were then hooked up with great ease and certainty by this instrument. In this manner we soon caught a dozen of the same kind as before; and the rest of our party had in the mean time killed a deer.

Toolemak began now to be extremely impatient to return home, his principal anxiety arising, I believe, from a childish desire to know what I should give him for his trouble; and when, in writing a note to Lieutenant Nias, I enumerated the articles I intended to present to him, he expressed more delight than I had ever before seen escape him. Among these was one of the rifle-guns supplied as presents, together with a sufficient quantity of ammunition to last him one summer, after which the gun would probably become useless itself for want of cleaning. It was astonishing to see the readiness with which these people learned to fire at a mark, and the tact they displayed in everything relating to this art. Boys from twelve to sixteen years of age would fire a fowling-piece, for the first time, with perfect steadiness; and the men, with very little practice, would very soon become superior marksmen.[005] As, however, the advantage they could derive from the use of firearms must be of very short duration, and the danger to any careless individuals very considerable, we did not, on any other occasion, consider it prudent to furnish them in this manner.

On the morning of the 28th Toolemak had left us for the ships, carrying with him our venison to be left there, and having first explained when and where the Esquimaux catch the fish with which he had supplied us the preceding summer; for it now appeared that they were not found in great abundance, or of that magnitude, in the river, but at the mouth of a very small stream about two miles lower down the creek on the same side. Their method is, to place in the bed of the stream, which is quite narrow, and seldom or never so deep as a man's middle, though running with great force, two or three separate piles of stones, which serve the double purpose of keeping off the force of the stream from themselves, and of narrowing the passage through which the fish have to pass in coming up from the sea to feed; thus giving the people an opportunity of striking them with their spears, and throwing them on the shore without much difficulty.

On the afternoon of the 1st of July we shifted our tents overland, and down the creek as far as the salmon stream. In performing this short journey over bare ground, I was enabled to form some conception of the difficulties likely to be encountered by Captain Lyon and his companions; for, even with our light load, the dogs could scarcely move at times. One of the strongest of eleven fell down in a fit occasioned by over exertion; the poor animal lay on his side, foaming at the mouth for a minute or two, but soon recovered sufficiently to be able to walk; and, being taken out of the sledge, was quite strong again the next day. We had scarcely arrived at the stream, when Toolemak's account was very satisfactorily confirmed by our finding on the ice near its mouth part of two fine salmon, above two feet in length, that had been thrown up by the force of the torrent, and a similar one was seen in the water. Our provisions being now out, we prepared for returning to the ships the following day; and I determined in a short time to send out Mr. Crozier with a larger party, well equipped with everything necessary for procuring us both fish and deer. We therefore left our tent, spare ammunition, and various other articles that would be required here, buried under a heap of stones near the stream, and on the morning of the 2d set out for the ships. The change which one week had made upon the ice it is quite impossible to conceive, the whole surface being now checkered with large and deep pools of water, where not a symptom of thawing had before appeared. This continued the whole way to the ships, which we reached at eight P.M., finding Captain Lyon and his party returned, after a laborious but unsuccessful endeavour to penetrate overland to the westward. On my arrival at the ships I found several new Esquimaux on board, who, to the number of twenty, had lately arrived from *Toon=o=onee-r=o=ochiuk*, a place situated to the westward and northward of Igloolik, and

somewhere upon the opposite coast of Cockburn Island. This party confirmed the former account respecting the two ships that had been forced on shore; and, indeed, as an earnest of its truth, one man named *Adloo*, who was said to have actually seen them in this state, was a day or two afterward met by our people at Arlagnuk, while travelling to the southward, and having on his sledge a great deal of wood of the same kind as that before described.

This information having excited considerable interest, Lieutenant Hoppner, who had taken great pains to ascertain the facts correctly, volunteered his services to accompany some of the Esquimaux, who were said to be going northward very shortly, and to obtain every information on this and other subjects which might be within the scope of such a journey. On the night of the 4th, having heard that a party of the Esquimaux intended setting out the following morning, Lieutenant Hoppner and his people went out to their tents to be in readiness to accompany them. We were surprised to find the next day, that not only Lieutenant Hoppner's intended guide, but the whole of the rest of these people, had altogether left the island, and, as it afterward proved, permanently for the summer. We were now, therefore, for the first time since our arrival here, entirely deserted by the natives, only two or three of whom again visited the ships during the remainder of our stay. It appears probable, indeed, that these wandering people are in the habit of residing at their various stations only at particular intervals of time, perhaps with the intention of not scaring the walruses and seals too much by a very long residence at one time upon the same spot. What made this appear still more likely was the present state of their winter habitations at Igloolik, which, though offensive enough at about the same time the preceding year, were then wholesome and comfortable in comparison. Besides quantities of putrid walrus flesh, blubber, and oil, carcasses of dogs, and even of human beings recently deceased, were now to be seen exposed in their neighbourhood. What remained of the corpse of Keim=o=oseuk was of course wholly uncovered; a second, of a child, on which the wolves had feasted, was also lying about; and a third, of a newly-born infant, was discovered in the middle of a small lake by Mr. Richards, who caused them all to be buried under ground.

Our stock of meat for the dogs being nearly expended, and no seahorses having yet been seen near the shore, I sent Mr. Ross with a sledge to Tern Island on the 13th, in expectation of being supplied by the Esquimaux. Mr. Ross returned on the 14th without success, the whole of the natives having left the island after plundering the birds' nests, as they had done the preceding year.

Finding that our valuable dogs must be now wholly dependant on our own exertions in providing meat, a boat from each ship was carried down to the neighbourhood of the open water, and shortly afterward two others, to endeavour to kill walruses for them. This was the more desirable from the probability of the Fury's passing her next winter where no natives were resident, and the consequent necessity of laying in our stock for that long and dreary season during the present summer. Our people, therefore, pitched their tents near the old Esquimaux habitations; and thus were four boats constantly employed, whenever the weather would permit, for the three succeeding weeks.

On the 16th Lieutenant Hoppner and his party returned to the ships, having only been enabled to travel to the south shore of Cockburn Island, on account of their guides not yet proceeding any farther. Two of the Esquimaux accompanied our travellers back to Igloolik, and, being loaded with various useful presents from the ships, returned home the following day.

CHAPTER XV.

Extraordinary Disruption of Ice in Quilliam Creek.—Some Appearance of Scurvy among the Seamen and Marines.—Discovery of Gifford River.—Commence cutting the Ice outside the Ships to release them from their Winter-quarters.—Considerations respecting the Return of the Expedition to England.—Unfavourable State of the Ice at the Eastern Entrance of the Strait.—Proceed to the Southward.—Ships beset and drifted up Lyon Inlet.—Decease of Mr. George Fife.—Final Release from the Ice, and Arrival in England.—Remarks upon the practicability of a Northwest Passage.

Among the various changes which the warmth of the returning summer was now producing around us, none was more remarkable than that noticed by Captain Lyon in an excursion to Quilliam Creek, and which, in a note received from him by the return of the sledges on the 17th, he thus describes: "Between the two points forming the entrance of the creek, we saw a high wall of ice extending immediately across from land to land, and on arriving at it, found that, by some extraordinary convulsion, the floe had burst upward, and that immense masses of ice had been thrown in every direction. Several blocks, eight or nine feet in thickness, and many yards in diameter, were lying on the level solid floe; yet we were for some time at a loss to discover whence they had been ejected, till at length we found a hole or pool, which appeared so small as to be hardly capable of containing the immense fragments near it; yet from this place alone must they have been thrown."

Captain Lyon subsequently added, that "the water, which was found to be quite fresh, was running rapidly to seaward in this opening; and it seemed probable that the vast accumulation

from the streams at the head of the creek, although at about ten miles distance, had burst a passage, and thus ejected the ice. The force employed for this purpose may be conceived, when I mention that, of several masses of ice, one in particular was above eight feet thick, full forty yards in circumference, and lay more than five hundred yards from the pool. No traces could be found of the manner in which these bodies had been transported, as not a single small fragment was seen lying about, to warrant the supposition that they had fallen with a shock. Neither were there any marks observable on the smooth uncracked floe to cause a suspicion that they had slidden over it, the general appearance of the floe at this place being the same as at all other parts of the inlet, and bearing no marks of having had any rush of water over it."

The weather was now, at times, extremely sultry, bringing out swarms of moschetoes, that soon became very troublesome, even on board the ships. A thermometer suspended in the middle of the observatory, and exposed to the sun's rays, was observed by Mr. Fisher to stand at 92° at five P.M. on the 18th.

On the 19th Captain Lyon returned from Quilliam Creek, bringing with him the whole of our party stationed there, the ice being now so broken up in that neighbourhood as to render the fishing dangerous without proper boats. On this journey, which it took two days to perform, eleven dogs drew a weight of two thousand and fifty pounds, of which six hundred and forty were salmon, and ninety-five venison, procured by our people. The fish had all been caught in the trawl; and treble the quantity might easily have been taken with a seine, had we known how wide the mouth of the stream was to become. They varied in length from twenty to twenty six inches, and one of the largest, when cleaned, weighed eight pounds and a half; but their average weight in this state did not exceed two pounds and a quarter. The distance of the fishing-place from the ships, the dangerous state of the ice, and the soreness of the dogs' feet from travelling on the rough, honey-combed ice, prevented our taking any farther advantage of this very acceptable change of diet.

Nothing worthy of notice occurred till the 29th, when a patch of ice, a mile broad, separated from the outer margin of our barrier and drifted away. The canal formed by laying sand on the ice was now quite through in most places, showing that the plan would, in this latitude at least, always ensure a ship's escape at an earlier season than by the regular course of nature, provided it could be carried the whole way down to the open water.

I am now under the disagreeable necessity of entering on a subject which I had at one time ventured to hope need scarcely occupy any part of this narrative: I mean that of the scurvy, some slight but unequivocal symptoms of which disease were this day reported to me, by Mr. Edwards, to have appeared among four or five of the Fury's men, rendering it necessary, for the first time during the voyage, to have recourse to antiscorbutic treatment among the seamen and marines.

It will, perhaps, be considered a curious and singular fact in the history of sea-scurvy, that during the whole of the preceding part of this voyage, none among us but officers were in the slightest degree affected by it, a circumstance directly contrary to former experience. To whatever causes this might be attributed, it could not, however, but be highly gratifying to be thus assured that the various means employed to preserve the health of the seamen and marines had proved even beyond expectation efficacious.

That a ship's company began to evince symptoms of scurvy after twenty-seven months' entire dependance upon the resources contained within their ship (an experiment hitherto unknown, perhaps, in the annals of navigation, even for one fourth part of that period), could scarcely, indeed, be a subject of wonder, though it was at this particular time a matter of very sincere regret. From the health enjoyed by our people during two successive winters, unassisted as we had been by any supply of *fresh* antiscorbutic plants or other vegetables, I had began to indulge a hope that, with a continued attention to their comforts, cleanliness, and exercise, the same degree of vigour might, humanly speaking, be ensured at least as long as our present liberal resources should last. Present appearances, however, seemed to indicate differently; for, though our sick-list had scarcely a name upon it, and almost every individual was performing his accustomed duty, yet we had at length been impressed with the unpleasant conviction that a strong predisposition to disease existed among us, and that no very powerful exciting cause was wanting to render it more seriously apparent. Such a conviction at the present crisis was peculiarly disagreeable; for I could not but lament any circumstance tending to weaken the confidence in our strength and resources at a time when more than ordinary exertion was about to be required at our hands.

The 1st of August had now arrived; and yet, incredible as it may appear, the ships were as securely confined in the ice as in the middle of winter, except that a pool of water, about twice their own length in diameter, was now opened around them. I determined, therefore, notwithstanding the apparent hopelessness of sawing our way through four or five miles of ice, to begin that laborious process; not, indeed, with the hope of cutting a canal sufficiently large to allow the passage of the ships to sea, but with a view to weaken it so much as in some measure to assist its disruption whenever any swell should set in upon its margin. On this and the following day, therefore, all the gear was carried down for that purpose, and a large tent pitched for the ships' companies to dine in, the distance being too great to allow them to return on board to their meals. On the 3d, however, we were saved a great deal of unnecessary labour, by the ice opening out at the crack before mentioned, so that our sawing might now be commenced within a mile of the Fury. After divine service, therefore, all hands were sent from both ships to bring back the tent and tools to the point of Oongalooyat, and the parties were recalled from the walrus-fishery,

except a single boat's crew: these also returned on board a few days after, the whole number of seahorses killed being eight, and one large seal.

On the 4th our sawing work was commenced, with the usual alacrity on the part of the officers and men, and three hundred and fifty yards of ice were got out before night, its thickness varying from one to four feet, but very irregular on account of the numerous pools and holes. An equal length was accomplished on the following day, though not without excessive fatigue and constant wet to the men, several of whom fell into the water by the ice breaking under them.

On the 5th, the register-thermometer, which had been placed in the ground in the winter, was taken up, though, to our astonishment, the ground above and about it had become nearly as hard and compactly frozen as when we dug the hole to put it down. How this came about we were quite at a loss to determine; for the earth had been thrown in quite loosely, whereas its present consolidated state implied its having been thoroughly thawed and frozen again. It occupied two men ten days to extricate it, which, as they approached the thermometer, was done by a chisel and mallet, to avoid injury by jarring. This, however, was not sufficient to prevent mischief, the instrument being so identified with the frozen earth as to render it impossible to strike the ground near it without communicating the shock to the tubes, two of which were in consequence found to be broken. Thus ended our experiment for ascertaining the temperature of the earth during the winter; an experiment which it would seem, from this attempt, scarcely practicable to make in any satisfactory manner without some apparatus constructed expressly for the purpose.

On the 6th the work was continued as before, and about four hundred yards of ice were sawn through and floated out, leaving now a broad canal, eleven hundred yards in length, leading from the open water towards that formed by the gravelled space.

When the lateness of the season to which the ships had now been detained in the ice is considered, with reference to the probability of the Fury's effecting anything of importance during the short remainder of the present summer, it will not be wondered at that, coupling this consideration with that of the health of my officers and men, I began to entertain doubts whether it would still be prudent to adopt the intended measure of remaining out in the Fury as a single ship; whether, in short, under existing circumstances, the probable evil did not far outweigh the possible good. In order to assist my own judgment on this occasion upon one of the most material points, I requested the medical officers of the Fury to furnish me with their opinions "as to the probable effect that a third winter passed in these regions would produce on the health of the officers, seamen, and marines of that ship, taking into consideration every circumstance connected with our situation." Their answer was decidedly adverse to remaining; and it was fortified with such good reasons, connected with the health of the officers and crews, as scarcely to leave me at liberty to adopt any other course than that of returning to England with both vessels.

Enclosing to Captain Lyon the replies of the medical gentlemen, I now also requested his opinion whether, under existing circumstances, he still considered it expedient to adopt the measure originally intended, with respect to the separation of the two ships. I had scarcely despatched a letter to this effect, when, at 10 A.M. on the 8th, the ice about the Fury began to move, the pools breaking up, and the gravelled canal soon entirely closing. A breeze springing up from the northward at this time, all sail was made upon the ship, and the ice gradually driving out as it detached itself from the shore, the Fury got into open water about one P.M. The Hecla, however, still remained in the middle of her winter's floe, which, though it moved a little with the rest at first, did not come out of the bay. In the course of the afternoon, finding her still stationary, I determined to occupy the time in stretching over to the northward, for the purpose of examining the state of the fixed ice at the eastern mouth of the strait; and, arriving at its margin by ten P.M., found it attached to both shores from the northeastern part of Neerlo-naktoo across to Murray Maxwell Inlet. It was the general opinion that this ice was in a more solid state than at the same time and place the preceding year, but its situation did not, I believe, differ half a mile from what it had then been. As the sun went down nearly in the direction of the strait, we obtained from the masthead a distinct and extensive view in that quarter, and it is impossible to conceive a more hopeless prospect than this now presented. One vast expanse of level solid ice occupied the whole extent of sea visible to the westward, and the eye wearied itself in vain to discover a single break upon its surface.

Having finished this examination, which at once destroyed every hope I had never ceased to indulge of a passage through the strait, we returned towards Igloolik to rejoin the Hecla. It was not, however, till the morning of the 9th that we observed her to be moving out of the bay, when at length (for the first time, perhaps, that such an event ever occurred) she drove to sea in the middle of the floe. Thus at the mercy of the ice, she was carried over the shoals off the southeast point of Igloolik in six and a half fathoms, but was then fortunately drifted into deeper water. The swell on the outside was all that was wanting to break up her icy prison, which, separating at seven A.M., finally released her from confinement.

Having soon afterward received Captain Lyon's answer to my communication, it was necessary for me to come to a final determination on the subject therein alluded to. For various reasons, he advised that the Fury and Hecla should return to England together, as soon as such arrangements respecting the removal of stores and provisions, as I might judge proper to make, should be completed.

Under such circumstances, to which may be added the uncertainty of the Hecla's liberation from the ice to the southward before the close of the season, I no longer considered it prudent or

justifiable, upon the slender chance of eventual success now before us, to risk the safety of the officers and men committed to my charge, and whom it was now my first wish to reconduct in good health to their country and their friends. Having communicated my intentions to the officers and ships' companies, I directed several additions to be made to their ordinary allowance of provisions, particularly in the various antiscorbutics, which had hitherto been reserved for cases of emergency; and then beating up to our winter station, which I named Turton Bay, we anchored there in the afternoon in ten fathoms, and immediately commenced our preparations for lightening the Fury. Seven months' provisions, a bower anchor, and a few other stores, were received by the Hecla, some of her water, before filled as ballast, being started to make room for them; and such other arrangements made as circumstances would permit for improving the stowage of the Fury's hold. The bay was now entirely clear of ice in every part; and so changed was its appearance in the course of the last four-and-twenty hours, that it was scarcely possible to believe it the same place that we had been accustomed daily to look upon for the ten preceding months.

The conveyance and stowage of the stores had scarcely been completed, when some loose ice drifting into the bay with the tide on the night of the 10th, obliged us hastily to get under way and stand out. On the following morning I ran across to the main land in the Fury, for the purpose of erecting, in compliance with my instructions, a flagstaff fifty-six feet in height, having at its top a ball, made of iron hoops and canvass, ten feet in diameter, and a cylinder buried near its foot, containing a parchment with some account of our visit to this place. In the mean time, I requested Captain Lyon to stand over to the point of Igloolik, where our walruses had been landed, and to bring off these, as well as our boats and tents remaining there. The ice soon after coming in upon the point, it was not without risk of the Hecla's being dangerously beset that Captain Lyon succeeded in bringing off everything but one boat. This was, indeed, no great loss to us, though a great acquisition to the Esquimaux; for, being almost worn out, I had intended to break her up previously to leaving the ice. Besides this, we purposely left our sledges, and a quantity of wood in pieces of a convenient size for bows, spears, and paddles, distributing them about in several places, that one or two individuals might not make a prize of the whole.

The Hecla rejoining us on the morning of the 12th, we stood out to the eastward, and finally took our departure from Igloolik. In the course of the night the favourable breeze failed us, and on the morning of the 14th was succeeded by a southerly wind, the ships being close to another island called Ooglit, about twelve leagues to the S.S.W. of the others. We were here immediately visited by our old acquaintance the Esquimaux, several of whom came off in their canoes in the course of the morning, as if determined to loose no opportunity of profiting by us. Among these was our worthy old friend Nannow, to whom everybody was glad to give something; and, indeed, they all received as many presents as their canoes could safely carry or tow on shore. Their tents, nine in number were pitched on the main land, a little to the northward of Ooglit, at a station they call *Ag-wis-se-=o-wik*, of which we had often heard them speak at Igloolik. They now also pointed out to us Amitioke, at the distance of four or five leagues to the southward and westward, which proved to be the same piece of low land that we had taken for it in first coming up this coast. The Esquimaux told us that a number of their younger men were inland in pursuit of deer, and that the rest had abundant supplies of walrus, which animals we saw in considerable numbers about this place.

We were now for some days all but beset in this neighbourhood, calms or light southerly and easterly breezes constantly prevailing. During this time the main body of ice remained, in most parts, close to the shore, leaving us only a "hole" of water to work about in, and much nearer to the land than on this shoal and shelving coast was altogether safe for the ships. Notwithstanding this, however, we had soon occasion to observe that they not only kept their ground, but even drew to the southward, owing, no doubt, to the current before found to set in that direction along the coast.

The ice remained close the whole of the 26th; but we continued, as usual, to drift generally to the southward, and the next morning, being off Owlitteeweek, were enabled to cast off and make sail, the ice being rather more open than before. Being favoured by a commanding northerly breeze, we ran a considerable distance to the southward, having, however, only just room to sail between the points of the closely packed ice and a flat, dangerous shore. Without escaping for a moment, from our confined situation, and almost without perceiving any motion of the masses of ice among themselves, we had, at noon on the 30th, drifted down within a mile of a small island lying near the northeast point of Winter Island. On the 31st the tide took us through between these, the breadth of the passage being three quarters of a mile, in no less than sixteen fathoms water. We then passed within a dangerous reef of rocks, lying a full mile from the shore, and having numerous heavy masses of grounded ice upon it. After clearing this in a good depth of water, we were, by the evening, carried along shore within a mile of Cape Fisher.

Thus had we, in a most singular manner, once more arrived at our old winter-quarters, with scarcely a single successful exertion on our parts towards effecting that object. The distance from Ooglit to our present station was about one hundred and sixty miles along the coast. Of this we had never *sailed* above forty, the rest of the distance having been accomplished, while we were immoveably beset, by mere drifting. The interval thus employed having been barely eight days, gives an average drift to the southward of above fifteen miles per day.

In the afternoon of the 6th I was much pained at being informed by telegraph from the Hecla, that Mr. Fife, Greenland master of that ship, had just expired, an event which for some days past there had been but too much reason to apprehend; the scurvy having within the last three weeks

continued to increase considerably upon him. It is proper for me, however, both in justice to the medical officers under whose skilful and humane care he was placed, and to the means with which we were in this way so liberally supplied, to state, that during a part of that time Mr. Fife had taken so great a dislike to the various antiscorbutics which were administered to him, that he could seldom be induced to use any of them. The disease, in consequence, reduced him to a state of extreme debility, which at length carried him off almost without pain. The Hecla being at the time closely beset, and in a situation of great danger among the shoals off Winter Island, Captain Lyon caused the remains of the deceased to be committed to the sea with all the solemnity which circumstances would permit.

In the night of the 6th, the ships, which had before nearly closed each other, were again separated to the distance of several miles, though no motion was perceptible in the masses of ice about them. On the evening of the 11th, however, the wind at length began to freshen from the northwest, when the ice immediately commenced driving down the inlet at the rate of a mile an hour, carrying the Fury with it, and within half a mile of the rocks, the whole way down to Cape Martineau, but keeping her in deep water. In the mean time the Hecla had been swept into much more dangerous situations, passing along the east and south sides of Winter Island; and, after driving nearly up to Five-hawser Bay, being carried near some dangerous shoals about Cape Edwards, where Captain Lyon expected every other tide that she would take the ground.

On the 15th, when the ships had closed each other within a mile, we could see the clear water from the masthead, and the Hecla could now have been easily extricated. Such, however, are the sudden changes that take place in this precarious navigation, that not long afterward the Fury was quite at liberty to sail out of the ice, while the Hecla was now, in her turn, so immoveably fast set, and even cemented between several very heavy masses, that no power that could be applied was sufficient to move her an inch. In this situation she remained all the 16th, without our being able to render her any assistance; and the frost being now rather severe at night, we began to consider it not improbable that we might yet be detained for another winter. We were perhaps, indeed, indebted for our escape to a strong westerly breeze, which blew for several hours on the 17th, when, the ice being sufficiently close to allow our men to walk to the assistance of the Hecla, we succeeded, after seven hours' hard labour, in forcing her into clear water, when all sail was made to the eastward, and our course shaped for the Trinity Islands in a perfectly open sea.

We thus finally made our escape from the ice after having been almost immoveably beset in it for twenty-four days out of the last twenty-six, in the course of which time the ships had been taken over no less than one hundred and forty leagues of ground, generally very close to the shore, and always unable to do anything towards effecting their escape from danger.

We made the Trinity Islands on the 18th, and ran down Hudson's Strait with a favourable breeze, reaching the Orkneys on the morning of Oct. 9th. It can scarcely, perhaps, be imagined by those who have not been similarly situated, with what eager interest one or two vessels were this day descried by us, being the first trace of civilized man that we had seen for the space of seven-and-twenty months. The breeze increasing to a fresh gale from the southward in the course of the night, with a heavy sea from the same quarter, rendering it impossible for us to make any progress in that direction, I determined to put into Lerwick in the Shetland Islands, to procure refreshments, and await a change in our favour. We accordingly bore up for that harbour early on the morning of the 10th, and at thirty minutes past ten A.M. anchored there, where we were immediately visited by a great number of the inhabitants, anxious to greet us on our return to our native country.

I feel it utterly impossible adequately to express, the kindness and attention we received for the three or four days that we were detained in Bressay Sound by a continuance of unfavourable winds. On the first information of our arrival the bells of Lerwick were set ringing, the inhabitants flocked from every part of the country to express their joy at our unexpected return, and the town was at night illuminated, as if each individual had a brother or a son among us.

On the 13th, a breeze springing up from the northward, we took leave of our kind and hospitable friends, deeply sensible of the cordial and affectionate reception we had experienced; and, being still favoured by the wind, were abreast of Buchaness the following evening. On the 16th, being off Whitby, I went on shore there, and, after receiving the cordial greetings of a great number of the worthy inhabitants of Whitby, who had assembled to meet us on landing, set off for London, and arrived at the Admiralty on the morning of the 18th.

THIRD VOYAGE
FOR THE DISCOVERY OF A NORTHWEST PASSAGE.

INTRODUCTION.

Notwithstanding the want of success of the late expedition to the Polar Seas, it was resolved to make another attempt to effect a passage by sea, between the Atlantic and Pacific Oceans. The chief alterations in the equipment of the present expedition consisted in the placing of Sylvester's warming stove in the very bottom of the ship's hold, in substituting a small quantity of salt beef for a part of the pork, and in furnishing a much larger supply of newly corned beef. Preserved carrots and parsnips, salmon, cream, pickles of onions, beet-root, cabbage, and, to make the most of our stowage, *split* peas, instead of whole ones, were supplied. A small quantity of beef pemmican, made by pounding the meat with a certain portion of fat, as described by Captain Franklin, was also furnished.

CHAPTER I.

Passage to the Whale-fish Islands, and Removal of Stores from the Transport.—Enter the Ice in Baffin's Bay.—Difficulties of Penetrating to the Westward.—Quit the Ice in Baffin's Bay.—Remarks on the Obstructions encountered by the Ships, and on the Severity of the Season.

The equipment of the Hecla and Fury, and the loading of the William Harris transport, being completed, we began to move down the river from Deptford on the 8th of May, 1824, and on the 10th, by the assistance of the steamboat, the three ships had reached Northfleet, where they received their powder and their ordnance stores.

Early on the morning of the 3d of July, the whole of our stores being removed, and Lieutenant Pritchard having received his orders, together with our despatches and letters for England, the William Harris weighed with a light wind from the northward, and was towed out to sea by our boats.

Light northerly winds, together with the dull sailing of our now deeply-laden ships, prevented our making much progress for several days, and kept us in the neighbourhood of numerous icebergs, which it is dangerous to approach when there is any swell. We counted from the deck, at one time, no less than one hundred and three of these immense bodies, some of them from one to two hundred feet in height above the sea; and it was necessary, in one or two instances, to tow the ships clear of them with the boats.

From this time, indeed, the obstructions from the quantity, magnitude, and closeness of the ice were such as to keep our people almost constantly employed in heaving, warping, or sawing through it; and yet with so little success, that, at the close of the month of July, we had only penetrated seventy miles to the westward, or the longitude of about 62° 10'.

Sept. 9th.—I shall, doubtless, be readily excused for not having entered in this journal a detailed narrative of the obstacles we met with, and of the unwearied exertions of the officers and men to overcome them, during the tedious eight weeks employed in crossing this barrier.

The constant besetment of the ships, and our daily observations for latitude and longitude, afforded a favourable opportunity for ascertaining precisely the set of any currents by which the whole body of ice might be actuated. By attending very carefully to all the circumstances, it was evident that a daily set to the southward obtained when the wind was northerly, differing in amount from two or three, to eight or ten miles per day, according to the strength of the breeze; but a northerly current was equally apparent, and fully to the same amount, whenever the wind blew from the southward. A circumstance more remarkable than these, however, forced itself strongly upon my notice at this time, which was, that a *westerly* set was very frequently apparent, even against a fresh breeze blowing from that quarter. I mention the circumstance in this place, because I may hereafter have to offer a remark or two on this fact, in connexion with some others of a similar nature noticed elsewhere.

With respect to the dimensions of the ice through which we had now scrambled our way, principally by warping and towing, a distance of between three and four hundred miles, I remarked that it for the most part increased, as well in the thickness as the extent of the floes, as we advanced westward about the parallel of 71°. During our subsequent progress to the north, we also met with some of enormous dimensions, several of the floes, to which we applied our hawsers and the power of the improved capstan, being at their margin more than twenty feet above the level of the sea; and over some of these we could not see from the masthead. Upon the whole, however, the magnitude of the ice became somewhat less towards the northwest, and within thirty miles of that margin the masses were comparatively small, and their thickness much diminished. Bergs were in sight during the whole passage, but they were more numerous towards the middle of the "pack," and rather the most so to the southward.

CHAPTER II.

Enter Sir James Lancaster's Sound.—Land at Cape Warrender.—Meet with young

Ice.—Ships beset and carried near the Shore.—Driven back to Navy-board Inlet.—Run to the Westward, and enter Prince Regent's Inlet.—Arrival at Port Bowen.

All our past obstacles were in a moment forgotten when we once more saw an open sea before us; but it must be confessed that it was not so easy to forget that the middle of September was already near at hand, without having brought us even to the entrance of Sir James Lancaster's Sound. That not a moment might be lost, however, in pushing to the westward, a press of canvass was crowded, and, being happily favoured with an easterly breeze, on the morning of Sept. 10th we caught a glimpse of the high bold land on the north side of the magnificent inlet up which our course was once more to be directed. From the time of our leaving the main body of ice, we met with none of any kind, and the entrance to the Sound was, as usual, entirely free from it, except here and there a berg, floating about in that solitary grandeur, of which these enormous masses, when occurring in the midst of an extensive sea, are calculated to convey so sublime an idea.

On the morning of the 12th we were once more favoured with a breeze from the eastward, but so light and unsteady that our progress was vexatiously slow; and on the 13th, when within seven leagues of Cape York, we had the mortification to perceive the sea ahead of us covered with young ice, the thermometer having, for two days past, ranged only from 18° to 20°.

The next breeze sprung up from the westward, drawing also from the southward, at times, out of Prince Regent's Inlet, and for three days we were struggling with the young ice to little or no purpose, now and then gaining half a mile of ground to windward in a little "hole" of open water, then losing as much by the necessity of bearing up or wearing (for the ice was too strong to allow us to tack), sallying from morning to night with all hands, and with the watch at night, two boats constantly under the bows; and, after all, rather losing ground than otherwise, while the young ice was every hour increasing in thickness.

Towards sunset on the 17th we became more and more hampered, and were eventually beset during the night. The sea was covered with ice between us and the shore, all of this year's formation, but now of considerable thickness and formidable appearance. The wind continuing strong, the whole body was constantly pressed in upon the land, bearing the ships along with it, and doubling one sheet over another, sometimes to a hundred thicknesses. We quickly shoaled the water from seventy to forty fathoms, the latter depth occurring about a mile from the beach; and after this we drifted but little, the ice being blocked up between the point and a high perpendicular berg lying aground off it.

Under such circumstances, it evidently became expedient to endeavour, by sawing, to get the ships as close in-shore as possible, so as to secure them either to grounded ice, or by anchoring within the shelter of a bay at no great distance inside of us; for it now seemed not unlikely that winter was about to put a premature stop to all farther operations at sea for this season. At all events, it was necessary to consult the immediate safety of the ships, and to keep them from being drifted back to the eastward. I therefore gave orders for endeavouring to get the ships in towards the bay, by cutting through what level floes still remained. So strong had been the pressure while the ice was forcing in upon us, that on the 20th, after liberating the Hecla on one side, she was as firmly cemented to it on the other, as after a winter's formation; and we could only clear her by heavy and repeated "sallying." After cutting in two or three hundred yards, while the people were at dinner on the 21st, our canal closed by the external pressure coming upon the parts which we had weakened, and in a few minutes the whole was once more in motion, or, as the seamen not inaptly expressed it, "alive," mass doubling under mass, and raising those which were uppermost to a considerable height. The ice thus pressed together was now about ten feet in thickness in some places, and on an average not less than four or five, so that, while thus forced in upon a ship, although soft in itself, it caused her to tremble exceedingly; a sensation, indeed, commonly experienced in forcing through young ice of considerable thickness. We were now once more obliged to be quiet spectators of what was going on around us, having, with extreme difficulty, succeeded in saving most of our tools that were lying on the ice when the squeezing suddenly began.

A sudden motion of the ice, on the morning of the 22d, occasioned by a change of the wind to the S.E., threatened to carry us directly off the land. It was now, more than ever, desirable to hold on, as this breeze was likely to clear the shore, and, at the same time, to give us a run to the westward. Hawsers were therefore run out to the land-ice, composed of some heavy masses, almost on the beach. With the Hecla this succeeded, but the Fury being much farther from the shore, soon began to move out with the whole body of ice, which, carrying her close to the large berg off the point, swept her round the latter, where, after great exertion, Captain Hoppner succeeded in getting clear, and then made sail to beat back to us. In the mean time the strain put upon the Hecla's hawsers being too great for them, they snapped one after another, and a bower-anchor was let go as a last resource. It was one of Hawkins's, with the double fluke, and immediately brought up, not merely the ship, but a large floe of young ice which had just broken our stream-cable. All hands were sent upon the floe to cut it up ahead, and the whole operation was a novel, and, at times, a fearful one; for the ice, being weakened by the cutting, would suddenly gather fresh way astern, carrying men and tools with it, while the chain cable continued to plough through it in a manner which gave one the idea of something alive, and continually renewing its attacks. The anchor held surprisingly; and after this tremendous strain had been put upon it for above an hour, we had fairly cut the floe in two, and the ship was riding in clear water about half a mile from the shore.

I was in hopes we should make some progress, for a large channel of clear water was left open in-shore; a breeze blew off the land, and the temperature of the atmosphere had again risen considerably. We had not sailed five miles, however, when a westerly wind took us aback, and a most dangerous swell set directly upon the shore, obliging me immediately to stand off the land; and the Fury being still to the eastward of the point, I ran round it in order to rejoin her before sunset.

After midnight on the 27th the wind began to moderate, and, by degrees, also drew more to the southward than before. At daylight, therefore, we found ourselves seven or eight miles from the land; but no ice was in sight, except the "sludge," of honey-like consistence, with which almost the whole sea was covered. A strong blink, extending along the eastern horizon, pointed out the position of the main body of ice, which was farther distant from the eastern shore of the inlet than I ever saw it. Being assisted by a fine working breeze, which, at the same time, prevented the formation of any more ice to obstruct us, we made considerable progress along the land, and at noon were nearly abreast of Jackson Inlet, which we now saw to be considerably larger than our distant view of it on the former voyage had led us to suppose. A few more tacks brought us to the entrance of Port Bowen, which, for two or three days past, I had determined to make our wintering-place, if, as there was but little reason to expect, we should be so fortunate as to push the ships thus far. Beating up, therefore, to Port Bowen, we found it filled with "old" and "hummocky" ice, attached to the shores on both sides, as low down as about three-quarters of a mile below Stony Island. Here we made fast in sixty-two fathoms water, running our hawsers far in upon the ice, in case of its breaking off at the margin.

CHAPTER III.

Winter Arrangements.—Improvements in Warming and Ventilating the Ships.—Masquerades adopted as an Amusement to the Men.—Establishment of Schools.—Astronomical Observations.—Meteorological Phenomena.

Oct.—Our present winter arrangements so closely resembled, in general, those before adopted, that a fresh description of them would prove little more than a repetition of that already contained in the narratives of our former voyages.

To those who read, as well as to those who describe, the account of a winter passed in these regions can no longer be expected to afford the interest of novelty it once possessed; more especially in a station already delineated with tolerable geographical precision on our maps, and thus, as it were, brought near to our firesides at home. Independently, indeed, of this circumstance, it is hard to conceive any one thing more like another than two winters passed in the higher latitudes of the Polar Regions, except when variety happens to be afforded by intercourse with some other branch of "the whole family of man." Winter after winter, nature here assumes an aspect so much alike, that cursory observation can scarcely detect a single feature of variety. The winter of more temperate climates, and even in some of no slight severity, is occasionally diversified by a thaw, which at once gives variety and comparative cheerfulness to the prospect. But here, when once the earth is covered, all is dreary, monotonous whiteness; not merely for days or weeks, but for more than half a year together. Whichever way the eye is turned, it meets a picture calculated to impress upon the mind an idea of inanimate stillness, of that motionless torpor with which our feelings have nothing congenial; of anything, in short, but life. In the very silence there is a deadness with which a human spectator appears *out of keeping*. The presence of man seems an intrusion on the dreary solitude of this wintry desert, which even its native animals have for a while forsaken.

I am persuaded, therefore, that I shall be excused in sparing the dulness of another winter's diary, and confining myself exclusively to those facts which appear to possess any scientific interest, to the few incidents which *did* diversify our confinement, and to such remarks as may contribute to the health and comfort of any future sojourners in these dreary regions.

It may well be supposed that, in this climate, the principal desideratum which art is called upon to furnish for the promotion of health, is warmth, as well in the external air as in the inhabited apartments. Exposure to a cold atmosphere, *when the body is well clothed*, produces no bad effect whatever beyond a frostbitten cheek, nose, or finger. As for any injury to healthy lungs from the breathing of cold air, or from sudden changes from this into a warm atmosphere, or *vice versa*, it may with much confidence be asserted that, with due attention to external clothing, there is nothing in this respect to be apprehended. This inference, at least, would appear legitimate, from the fact that our crews, consisting of one hundred and twenty persons, have for four winters been constantly undergoing, for months together, a change of from eighty to a hundred degrees of temperature, in the space of time required for opening two doors (perhaps less than half a minute), without incurring any pulmonary complaints at all.

In speaking of the external clothing sufficient for health in this climate, it must be confessed that, in severe exposure, quite a *load* of woollen clothes, even of the best quality, is insufficient to retain a comfortable degree of warmth; a strong breeze carrying it off so rapidly, that the sensation is that of the cold piercing through the body. A jacket made very long, like those called by seamen "pea-jackets," and lined with fur throughout, would be more effectual than twice the

weight of woollen clothes, and is, indeed, almost weather-proof. For the prevention of lumbago, to which our seamen are especially liable, from their well-known habit of leaving their loins imperfectly clothed, every man should be strictly obliged to wear, under his outer clothes, a canvass belt a foot broad, lined with flannel, and having straps to go over the shoulder.[006]

It is certain, however, that no precautions in clothing are sufficient to maintain health during a Polar winter, without a due degree of warmth in the apartments we inhabit. Most persons are apt to associate with the idea of warmth, something like the comfort derived from a good fire on a winter's evening at home; but in these regions the case is inconceivably different: here it is not simple comfort, but health, and, therefore, ultimately life, that depends upon it. The want of a constant supply of warmth is here immediately followed by a condensation of all the moisture, whether from the breath, victuals, or other sources, into abundant drops of water, very rapidly forming on all the coldest parts of the deck. A still lower temperature modifies, and perhaps improves, the annoyance by converting it into ice, which again an occasional increase of warmth dissolves into water. Nor is this the amount of the evil, though it is the only visible part of it; for not only is a moist atmosphere thus incessantly kept up, but it is rendered stagnant also by the want of that ventilation which warmth alone can furnish. With an apartment in this state, the men's clothes and bedding are continually in a moist and unwholesome condition, generating a deleterious air, which there is no circulation to carry off; and, whenever these circumstances combine for any length of time together, so surely may the scurvy, to say nothing of other diseases, be confidently expected to exhibit itself.

Every attention was, as usual, paid to the occupation and diversion of the men's minds, as well as to the regularity of their bodily exercise. Our former amusements being almost worn threadbare, it required some ingenuity to devise any plan that should possess the charm of novelty to recommend it. This purpose was completely answered by a proposal of Captain Hoppner, to attempt a *masquerade*, in which officers and men should alike take a part, but which, without imposing any restraint whatever, would leave every one to his own choice whether to join in this diversion or not. It is impossible that any idea could have proved more happy, or more exactly suited to our situation. Admirably dressed characters of various descriptions readily took their parts, and many of these were supported with a degree of spirit and genuine humour which would not have disgraced a more refined assembly; while the latter might not have disdained, and would not have been disgraced by, copying the good order, decorum, and inoffensive cheerfulness which our humble masquerade presented. It does especial credit to the dispositions and good sense of our men, that, though all the officers entered fully into the spirit of these amusements, which took place once a month, no instance occurred of anything that could interfere with the regular discipline, or at all weaken the respect of the men towards their superiors. Ours were masquerades without licentiousness; carnivals without excess.

But an occupation not less assiduously pursued, and of infinitely more eventual benefit, was furnished by the re-establishment of our schools, under the voluntary superintendence of my friend Mr. Hooper in the Hecla, and of Mr. Mogg in the Fury. By the judicious zeal of Mr. Hooper, the Hecla's school was made subservient, not merely to the improvement of the men in reading and writing (in which, however, their progress was surprisingly great), but also to the cultivation of that religious feeling which so essentially improves the character of a seaman, by furnishing the highest motives for increased attention to every other duty. Nor was the benefit confined to the eighteen or twenty individuals whose want of scholarship brought them to the school-table, but extended itself to the rest of the ship's company, making the whole lower-deck such a scene of quiet rational occupation as I never before saw on board a ship. And I do not speak lightly when I express my thorough persuasion, that to the moral effects thus produced upon the minds of the men, were owing, in a very high degree, the constant yet sober cheerfulness, the uninterrupted good order, and even, in some measure, the extraordinary state of health which prevailed among us during this winter.

The extreme facility with which sounds are heard at a considerable distance in severely cold weather, has often been a subject of remark; but a circumstance occurred at Port Bowen which deserves to be noticed, as affording a sort of measure of this facility, or, at least, conveying to others some definite idea of the fact. Lieutenant Foster having occasion to send a man from the observatory to the opposite shore of the harbour, a measured distance of 6696 feet, or about one statute mile and two tenths, in order to fix a meridian mark, had placed a second person half way between, to repeat his directions; but he found, on trial, that this precaution was unnecessary, as he could, without difficulty, keep up a conversation with the man at the distant station. The thermometer was at this time-18°, the barometer 30.14 inches, and the weather nearly calm, and quite clear and serene.

About one o'clock on the morning of the 23d February, the Aurora appeared over the hills in a south direction, presenting a brilliant mass of light. The rolling motion of the light laterally was very striking, as well as the increase of its intensity thus occasioned. The light occupied horizontally about a point of the compass, and extended in height scarcely a degree above the land, which seemed, however, to conceal from us a part of the phenomenon. It was always evident enough that the most attenuated light of the Aurora sensibly dimmed the stars, like a thin veil drawn over them. We frequently listened for any sound proceeding from this phenomenon, but never heard any. Our variation needles, which were extremely light, suspended in the most delicate manner, and, from the weak directive energy, susceptible of being acted upon by a very slight disturbing force, were never, in a single instance, sensibly affected by the Aurora, which could scarcely fail to have been observed at some time or other, had any such disturbance taken

place, the needles being visited every hour for several months, and oftener when anything occurred to make it desirable.

The meteors called falling stars were much more frequent during this winter than we ever before saw them, and particularly during the month of December.

CHAPTER IV.

Re-equipment of the Ships.—Several Journeys undertaken.—Open Water in the Offing.—Commence sawing a Canal to liberate the Ships.—Disruption of the Ice. —Departure from Port Bowen.

The height of the land about Port Bowen deprived us longer than usual of the sun's presence above our horizon. Some of our gentlemen, indeed, who ascended a high hill for the purpose, caught a glimpse of him on the 2d of February; on the 15th it became visible at the observatory, but at the ships not till the 22d, after an absence of one hundred and twenty-one days. It is very long after the sun's reappearance in these regions, however, that the effect of his rays, as to warmth, becomes perceptible; week passes after week, with scarcely any rise in the thermometer except for an hour or two during the day; and it is at this period more than any other, perhaps, that the lengthened duration of a Polar winter's cold is most wearisome, and creates the most impatience. Towards the third week in March, thin flakes of snow lying upon black painted wood or metal, and exposed to the sun's direct rays in a sheltered situation, readily melted. In the second week of April any very light covering of sand or ashes upon the snow close to the ships might be observed to make its way downward into holes; but a coat of sand laid upon the unsheltered ice, to the distance of about two thirds of a mile, for dissolving a canal to hasten our liberation, produced no such sensible effect till the beginning of May. Even then the dissolution was very trifling till about the first week in June, when pools of water began to make their appearance, and not long after this a small boat would have floated down it. On shore the effect is, in general, still more tardy, though some deception is there occasioned by the dissolution of the snow next the ground, while its upper surface is to all appearance undergoing little or no change. Thus a greater alteration is sometimes produced in the aspect of the land by a single warm day in an advanced part of the season, than in many weeks preceding, in consequence of the last crust of snow being dissolved, leaving the ground at length entirely bare. We could now perceive the snow beginning to leave the stones from day to day, as early as the last week in April. Towards the end of May a great deal of snow was dissolved daily; but, owing to the porous nature of the ground, which absorbed it as fast as it was formed, it was not easy to procure water for drinking on shore, even as late as the 10th of June. In the ravines, however, it could be heard trickling under stones before that time; and about the 18th, many considerable streams were formed, and constantly running both night and day. After this the thawing proceeded at an inconceivably rapid rate, the whole surface of the floes being covered with large pools of water rapidly increasing in size and depth.

The animals seen at Port Bowen may now be briefly noticed. The principal of these seen during the winter were bears, of which we killed twelve from October to June, being more than during all the other voyages taken together; and several others were seen. One of these animals was near proving fatal to a seaman of the Fury, who, having straggled from his companions, when at the top of a high hill saw a large bear coming towards him. Being unarmed, he prudently made off, taking off his boots to enable him to run the faster, but not so prudently precipitated himself over an almost perpendicular cliff, down which he was said to have rolled or fallen several hundred feet; here he was met by some of the people in so lacerated a condition as to be in a very dangerous state for some time after.

A she-bear, killed in the open water on our first arrival at Port Bowen, afforded a striking instance of maternal affection in her anxiety to save her two cubs. She might herself easily have escaped the boat, but would not forsake her young, which she was actually "towing" off, by allowing them to rest on her back, when the boat came near them. A second similar instance occurred in the spring, when two cubs having got down into a large crack in the ice, their mother placed herself before them, so as to secure them from the attacks of our people, which she might easily have avoided herself.

One or two foxes (*Canis Lagopus*) were killed, and four caught in traps during the winter, weighing from four pounds and three quarters to three pounds and three quarters. The colour of one of these animals, which lived for some time on board the Fury, and became tolerably tame, was nearly pure white till the month of May, when he shed his winter coat, and became of a dirty chocolate colour, with two or three light brown spots. Only three hares (*Lepus Variabilis*) were killed from October to June, weighing from six to eight pounds and three quarters. Their fur was extremely thick, soft, and of the most beautiful whiteness imaginable. We saw no deer near Port Bowen at any season, neither were we visited by their enemies the wolves. A single ermine and a few mice (*Mus Hudsonius*) complete, I believe, our scanty list of quadrupeds at this desolate and unproductive place.

Towards the end of June, the dovekies (*Colymbus Grylle*) were extremely numerous in the cracks of the ice at the entrance of Port Bowen; and as these were the only fresh supply of any

consequence that we were able to procure at this unproductive place, we were glad to permit the men to go out occasionally with guns, after the ships were ready for sea, to obtain for their messes this wholesome change of diet; while such excursions also contributed essentially to their general health and cheerfulness. Many hundreds of these birds were thus obtained in the course of a few days. On the evening of the 6th of July, however, I was greatly shocked at being informed by Captain Hoppner that John Cotterell,[007] a seaman of the Fury, had been found drowned in one of the cracks of the ice by two other men belonging to the same party, who had been with him but a few minutes before. We could never ascertain precisely in what manner this accident happened, but it was supposed that he must have overreached himself in stooping for a bird that he had killed. His remains were committed to the earth on Sunday the 10th, with every solemnity which the occasion demanded, and our situation would allow; and a tomb of stones, with a suitable inscription, was afterward erected over the grave.

In order to obtain oil for another winter's consumption, before the ships could be released from the ice, and our travelling parties having seen a number of black whales in the open water to the northward, two boats from each ship were, with considerable labour, transported four miles along shore in that direction, to be in readiness for killing a whale and boiling the oil on the beach, whenever the open water should approach sufficiently near. Notwithstanding these preparations, however, it was vexatious to find that on the 9th of July the water was still three miles distant from the boats, and at least seven from Port Bowen. On the 12th, the ice in our neighbourhood began to detach itself, and the boats, under the command of Lieutenants Sherer and Ross, being launched on the following day, succeeded almost immediately in killing a small whale of "five feet bone," exactly answering our purpose. Almost at the same time, and, as it turned out, very opportunely, the ice at the mouth of our harbour detached itself at an old crack, and drifted off, leaving only about one mile and a quarter between us and the sea. Half of this distance being occupied by the gravelled canal, which was dissolved quite through the ice in many parts, and had become very thin in all, every officer and man in both ships were set to work without delay to commence a fresh canal from the open water to communicate with the other. This work proved heavier than we expected, the ice being generally from five to eight feet, and in many places from ten to eleven in thickness. It was continued, however, with the greatest cheerfulness and alacrity from seven in the morning till seven in the evening daily, the dinner being prepared on the ice, and eaten under the lee of a studding sail erected as a tent.

On the afternoon of the 19th, a very welcome stop was put to our operations by the separation of the floe entirely across the harbour, and about one third from the ships to where we were at work. All hands being instantly recalled by signal, were, on their return, set to work to get the ships into the gravelled canal, and to saw away what still remained in it to prevent our warping to sea. This work, with only half an hour's intermission for the men's supper, was continued till half past six the following morning, when we succeeded in getting clear. The weather being calm, two hours were occupied in towing the ships to sea, and thus the officers and men were employed at a very laborious work for twenty-six hours, during which time there were, on one occasion, fifteen of them overboard at once; and, indeed, several individuals met with the same accident three times. It was impossible, however, to regret the necessity of these comparatively trifling exertions, especially as it was now evident that to saw our way out without any canal would have required at least a fortnight of heavy and fatiguing labour.

CHAPTER V.

Sail over towards the Western Coast of Prince Regent's Inlet.—Stopped by the Ice.—Reach the Shore about Cape Seppings.—Favourable Progress along the Land.—Fresh and repeated Obstructions from Ice.—Both Ships driven on Shore.—Fury seriously damaged.—Unsuccessful Search for a Harbour for heaving her down to repair.

July 20.—On standing out to sea, we sailed, with a light southerly wind, towards the western shore of Prince Regent's Inlet, which it was my first wish to gain, on account of the evident advantage to be derived from coasting the southern part of that portion of land called in the chart "North Somerset," as far as it might lead to the westward; which, from our former knowledge, we had reason to suppose it would do as far at least as the longitude of 95°, in the parallel of about 72-3/4º. After sailing about eight miles, we were stopped by a body of close ice lying between us and a space of open water beyond. We were shortly after enveloped in one of the thick fogs which had, for several weeks past, been observed almost daily hanging over some part of the sea in the offing, though we had scarcely experienced any in Port Bowen until the water became open at the mouth of the harbour.

On the clearing up of the fog on the 21st, we could perceive no opening of the ice leading towards the western land, nor any appearance of the smallest channel to the southward along the eastern shore. I was determined, therefore, to try at once a little farther to the northward, the present state of the ice appearing completely to accord with that observed in 1819, its breadth increasing as we advanced from Prince Leopold's Islands to the southward.

Light winds detained us very much, but, being at length favoured by a breeze, we carried all sail

to the northwest, the ice very gradually leading us towards the Leopold Isles. Having arrived off the northernmost on the morning of the 22nd, it was vexatious, however curious, to observe the exact coincidence of the present position of the ice with that which it occupied a little later in the year 1819. The whole body of it seemed to cling to the western shore, as if held there by some strong attraction, forbidding, for the present, any access to it. After running all night, with light and variable winds, through loose and scattered ice, we suddenly found ourselves, on the clearing up of a thick fog through which we had been sailing on the morning of the 24th, within one third of a mile of Cape Seppings, the land just appearing above the fog in time to save us from danger, the soundings being thirty-eight fathoms, on a rocky bottom. The Fury being apprized by guns of our situation, both ships were hauled off the land, and the fog soon after dispersing, we had the satisfaction to perceive that the late gale had blown the ice off the land, leaving us a fine navigable channel from one to two miles wide, as far as we could see from the masthead along the shore. We were able to avail ourselves of this but slowly, however, in consequence of a light southerly breeze still blowing against us.

The land here, when closely viewed, assumes a very striking, and magnificent character; the strata of limestone, which are numerous and quite horizontally disposed, being much more regular than on the eastern shore of Prince Regent's Inlet, and retaining nearly their whole perpendicular height of six or seven hundred feet close to the sea. I may here remark, that the whole of Barrow's Strait, as far as we could see to the N.N.E. of the islands, was entirely free from ice; and, from whatever circumstance it may proceed, I do not think that this part of the Polar Sea is at any season very much encumbered with it.

It was the general feeling at this period among us, that the voyage had but now commenced. The labours of a bad summer, and the tedium of a long winter, were forgotten in a moment when we found ourselves upon ground not hitherto explored, and with every apparent prospect before us of making as rapid a progress as the nature of this navigation will permit, towards the final accomplishment of our object.

A breeze enabling us again to make some progress, and an open channel still favouring us, of nearly the same breadth as before, we passed, during the night of the 25th, a second bay, about the same size as the other, and also appearing open to the sea; it lies in latitude (by account from the preceding and following noon) 73° 19' 30", and its width is one mile and a half. We now perceived that the ice closed completely in with the land a short distance beyond us; and, having made all the way we could, were obliged to stand off and on during the day in a channel not three quarters of a mile wide.

A light southerly breeze on the morning of the 28th gradually cleared the shore, and a fresh wind from the N.W. then immediately succeeded. We instantly took advantage of this circumstance, and, casting off at six A.M., ran eight or nine miles without obstruction, when we were stopped by the ice, which, in a closely packed and impenetrable body, stretched close into the shore as far as the eye could reach from the crow's nest. Being anxious to gain every foot of distance that we could, and perceiving some grounded ice which appeared favourable for making fast to, just at a point where the clear water terminated, the ships were run to the utmost extent of it, and a boat prepared from each to examine the water at the intended anchoring place. Just as I was about to leave the Hecla for that purpose, the ice was observed, to be in rapid motion towards the shore. The Fury was immediately hauled in by some grounded masses, and placed to the best advantage; but the Hecla, being more advanced, was immediately beset in spite of every exertion, and, after breaking two of the largest ice-anchors in endeavouring to heave in to the shore, was obliged to drift with the ice, several masses of which had fortunately interposed themselves between us and the land. The ice slackening around us a little in the evening, we were enabled, with considerable labour, to get to some grounded masses, where we lay much exposed, as the Fury also did. In this situation, our latitude being 72° 51' 51", we saw a comparatively low point of land three or four leagues to the southward, which proved to be near that which terminated our view of this coast in 1819.

The ice opening for a mile and a half alongshore on the 30th, we shifted the Hecla's berth about that distance to the southward, chiefly to be enabled to see more distinctly round a point which before obstructed our view, though our situation as regarded the security of the ship was much altered for the worse. In the afternoon it blew a hard gale, with constant rain, from the northward, the clouds indicating an easterly wind in other parts. This wind, which was always the troublesome one to us, soon brought the ice closer and closer, till it pressed with very considerable violence on both ships, though the most upon the Fury, which lay in a very exposed situation. Early on the morning of the 31st, as soon as a communication could be effected, Captain Hoppner sent to inform me that the Fury had been forced on the ground, where she still lay; but that she would probably be hove off without much difficulty at high water, provided the external ice did not prevent it. A large party of hands from the Hecla being sent round to the Fury towards high water, she came off the ground with very little strain, so that, upon the whole, considering the situation in which the ships were lying, we thought ourselves fortunate in having incurred no very serious injury. A shift of wind to the southward in the afternoon at length began gradually to slacken it, but it was not till six A.M. on the 1st of August that there appeared a prospect of making any progress. The signal to that effect was immediately made; but, while the sails were setting, the ice, which had at first been three quarters of a mile distant from us, was observed to be closing the shore The ships were cast with all expedition, in hopes of gaining the broader channel before the ice had time to shut us up. So rapid, however, was the latter in this its sudden movement, that we had but just got the ships' heads the right way when the ice came

boldly in upon us, being doubtless set in motion by a very sudden freshening of the wind almost to a gale in the course of a few minutes. The ships were now almost instantly beset, and in such a manner as to be literally helpless and unmanageable.

The sails were, however, kept set; and, as the body of ice was setting to the southward withal, we went with it some little distance in that direction. The Hecla, after thus driving, and now and then forcing her way through the ice, in all about three quarters of a mile, quite close to the shore, at length struck the ground forcibly several times in the space of a hundred yards, and being then brought up by it, remained immoveable, the depth of water under her keel abaft being sixteen feet, or about a foot less than she drew. The Fury, continuing to drive, was now irresistibly carried past us, and we escaped, only by a few feet, the damage invariably occasioned by ships coming in contact under such circumstances. She had, however, scarcely passed us a hundred yards, when it was evident, by the ice pressing her in, as well as along the shore, that she must soon be stopped like the Hecla; and having gone about two hundred yards farther, she was observed to receive a severe pressure from a large floe-piece forcing her directly against a grounded mass of ice upon the beach. After setting to the southward for an hour or two longer, the ice became stationary, no open water being anywhere visible from the masthead, and the pressure on the ships remaining undiminished during the day. Just as I had ascertained the utter impossibility of moving the Hecla a single foot, and that she must lie aground fore and aft as soon as the tide fell, I received a note from Captain Hoppner, informing me that the Fury had been so severely "nipped" and strained as to leak a good deal, apparently about four inches an hour; that she was still heavily pressed both upon the ground and against the large mass of ice within her; that the rudder was at present very awkwardly situated; and that one boat had been much damaged. However, about high water, the ice very opportunely slacking, the Hecla was hove off with great ease, and warped to a floe in the offing, to which we made fast at midnight. The Fury was not long after us in coming off the ground, when I was in hopes of finding that any twist or strain by which her leaks might have been occasioned, would, in some measure, close when she was relieved from pressure and once more fairly afloat. My disappointment and mortification, therefore, may in some measure be imagined, at being informed by telegraph, about two A.M. on the 2d, that the water was gaining on two pumps, and that a part of the doubling had floated up. Presently after, perceiving from the masthead something like a small harbour nearly abreast of us, every effort was made to get once more towards the shore. In this the ice happily favoured us; and, after making sail, and one or two tacks, we got in with the land, when I left the ship in a boat to sound the place and search for shelter. The whole shore was more or less lined with grounded masses of ice; but, after examining the soundings within more than twenty of them, in the space of about a mile, I could only find two that would allow the ships to float at low water, and that by some care in placing and keeping them there. Having fixed a flag on each berg, the usual signal for the ships taking their stations, I rowed on board the Fury, and found four pumps constantly going to keep the ship free, and Captain Hoppner, his officers and men, almost exhausted with the incessant labour of the last eight-and-forty hours. The instant the ships were made fast, Captain Hoppner and myself set out in a boat to survey the shore still farther south, there being a narrow lane of water about a mile in that direction; for it had now become too evident that the Fury could proceed no farther without repairs, and that the nature of those repairs would in all probability involve the disagreeable, I may say the ruinous, necessity of heaving the ship down. After rowing about three quarters of a mile, we considered ourselves fortunate in arriving at a bolder part of the beach, where three grounded masses of ice, having from three to four fathoms water at low tide within them, were so disposed as to afford, with the assistance of art, something like shelter. Returning to the ships, we were setting the sails in order to run to the appointed place, when the ice closed in and prevented our moving, and in a short time there was once more no open water to be seen. We were therefore under the necessity of remaining in our present berths, where the smallest external pressure must inevitably force us ashore, neither ship having more than two feet of water to spare. One watch of the Hecla's crew were sent round to assist at the Fury's pumps, which required one third of her ship's company to be constantly employed at them.

The more leisure we obtained to consider the state of the Fury, the more apparent became the absolute, however unfortunate, necessity of heaving her down. Four pumps were required to be at work without intermission to keep her free, and this in perfectly smooth water, showing that she was, in fact, so materially injured as to be very far from seaworthy. One third of her working men were constantly employed, as before remarked, in this laborious operation, and some of their hands had become so sore from the constant friction of the ropes, that they could hardly handle them any longer without the use of mittens, assisted by the unlaying of the ropes to make them soft. As, therefore, not a moment could be lost, we took advantage of a small lane of water, deep enough for boats, which kept open within the grounded masses along the shore, to convey to the Hecla some of the Fury's dry provisions, and to land a quantity of heavy iron work, and other stores not perishable; for the moment this measure was determined on, I was anxious, almost at any risk, to commence the lightening of the ship as far as our present insecurity and our distance from the shore would permit.

At two A.M. on the 5th, the ice began to slacken near the ships, and, as soon as a boat could be rowed alongshore to the southward, I set out, accompanied by a second from the Fury, for the purpose of examining the state of our intended harbour since the recent pressure, and to endeavour to prepare for the reception of the ships by clearing out the loose ice. The Fury was detained some time by a quantity of loose ice, which had wedged itself in in such a manner as to leave her no room to move outward; but she arrived about seven o'clock, when both ships were made fast in the best berths we could find, but they were excluded from their intended place by

the quantity of ice which had fixed itself there. Within twenty minutes after our arrival, the whole body of ice again came in, entirely closing up the shore, so that our moving proved most opportune.

CHAPTER VI.

Formation of a Basin for heaving the Fury down.—Landing of the Fury's Stores, and other Preparations.—The Ships secured within the Basin.—Impediments from the Pressure of the Ice.—Fury hove down.—Securities of the Basin destroyed by a Gale of Wind.—Preparations to tow the Fury out.—Hecla Re-equipped, and obliged to put to Sea.—Fury again driven on Shore.—Rejoin the Fury; and find it necessary finally to abandon her.

As there was now no longer room for floating the ice out of the proposed basin, all hands were immediately employed in preparing the intended securities against the incursions of the ice. These consisted of anchors carried to the beach, having bower-cables attached to them, passing quite round the grounded masses, and thus enclosing a small space of just sufficient size to admit both ships. The cables we proposed floating by means of the two hand-masts and some empty casks lashed to them as buoys, with the intention of thus making them receive the pressure of the ice a foot or two below the surface of the water. By uncommon exertions on the part of the officers and men, this laborious work was completed before night as far as was practicable until the loose ice should set out; and all the tents were set up on the beach for the reception of the Fury's stores.

The ice remaining quite close on the 6th, every individual in both ships, with the exception of those at the pumps, was employed in landing provisions from the Fury, together with the spars, boats, and everything from off her upper deck. On the following day, the ice remaining as before, the work was continued without intermission, and a great quantity of things landed. The armorer was also set to work on the beach in forging bolts for the martingales of the outriggers. In short, every living creature among us was somehow or other employed, not even excepting our dogs, which were set to drag up the stores on the beach; so that our little dock-yard soon exhibited the most animated scene imaginable. The Fury was thus so much lightened in the course of the day, that two pumps were now nearly sufficient to keep her free, and this number continued requisite until she was hove down.

At night, just as the people were going to rest, the ice began to move to the southward, and soon after came in towards the shore, pressing the Fury over on her side to so alarming a degree, as to warn us that it would not be safe to lighten her much more in her present insecure situation. One of our bergs also shifted its position by this pressure, so as to weaken our confidence in the pier-heads of our intended basin; and a long "tongue" of one of them forcing itself under the Hecla's forefoot, while the drifting ice was also pressing her forcibly from astern, she once more sewed three or four feet forward at low water, and continued to do so, notwithstanding repeated endeavours to haul her off, for four successive tides, the ice remaining so close and so much doubled under the ship, as to render it impossible to move her a single inch. Notwithstanding the state of the ice, however, we did not remain idle on the 8th, all hands being employed in unrigging the Fury, and landing all her spars, sails, booms, boats, and other top weight.

The ice still continuing very close on the 9th, all hands were employed in attempting, by saws and axes, to clear the Hecla, which still grounded on the tongue of ice every tide. After four hours' labour, they succeeded in making four or five feet of room astern, when the ship suddenly slid down off the tongue with considerable force, and became once more afloat. As it very opportunely happened, the external ice slackened to the distance of about a hundred yards outside of us on the morning of the 10th, enabling us, by a most tedious and laborious operation, to clear the ice out of our basin piece by piece. Our next business was to tighten the cables sufficiently by means of purchases, and to finish the floating of them in the manner and for the purpose before described. After this had been completed, the ships had only a few feet in length, and nothing in breadth to spare, but we had now great hopes of going on with our work with increased confidence and security. The Fury, which was placed inside, had something less than eighteen feet at low water; the Hecla lay in four fathoms, the bottom being strewed with large and small fragments of limestone.

While thus employed in securing the ships, the smoothness of the water enabled us to see, in some degree, the nature of the Fury's damage; and it may be conceived how much pain it occasioned us plainly to discover that both the sternpost and forefoot were broken and turned up on one side with the pressure. We also could perceive, as far as we were able to see along the main keel, that it was much torn, and we had therefore much reason to conclude that the damage would altogether prove very serious. We also discovered that several feet of the Hecla's false keel were torn away abreast of the forechains, in consequence of her grounding forward so frequently.

Being favoured with fine weather, we continued our work very quickly, so that on the 12th every cask was landed, and also the powder; and the spare sails and clothing put on board the Hecla. The coals and preserved meats were the principal things now remaining on board the Fury, and

these we continued landing by every method we could devise as the most expeditious.

Early on the morning of the 14th, the ice slackening a little in our neighbourhood, we took advantage of it, though the people were much fagged, to tighten the cables, which had stretched and yielded considerably by the late pressure. It was well that we did so; for in the course of this day we were several times interrupted in our work by the ice coming with a tremendous strain on the north cables, the wind blowing strong from the N.N.W., and the whole "pack" outside of us setting rapidly to the southward. Indeed, notwithstanding the recent tightening and readjustment of the cables, the bight was pressed in so much as to force the Fury against the berg astern of her twice in the course of the day.

From this trial of the efficacy of our means of security, it was plain that the Fury could not possibly be hove down under circumstances of such frequent and imminent risk: I therefore directed a fourth anchor, with two additional cables, to be carried out, with the hope of breaking some of the force of the ice by its offering a more oblique resistance than the other, and thus, by degrees, turning the direction of the pressure from the ships. We had scarcely completed this new defence, when the largest floe we had seen since leaving Port Bowen came sweeping along the shore, having a motion to the southward of not less than a mile and a half an hour; and a projecting point of it, just grazing our outer berg, threatened to overturn it, and would certainly have dislodged it from its situation but for the cable recently attached to it.

The Fury being completely cleared at an early hour on the 16th, we were all busily employed in "winding" the ship, and in preparing the outriggers, shores, purchases, and additional rigging. Though we purposely selected the time of high water for turning the ship round, we had scarcely a foot of space to spare for doing it; and indeed, as it was, her forefoot touched the ground, and loosened the broken part of the wood so much as to enable us to pull it up with ropes, when we found the fragments to consist of the whole of the "gripe" and most of the "cutwater." In the evening we received the Fury's crew on board the Hecla, every arrangement and regulation having been previously made for their personal comfort, and for the preservation of cleanliness, ventilation, and dry warmth throughout the ship. The officers of the Fury, by their own choice, pitched a tent on shore for messing and sleeping in, as our accommodation for two sets of officers was necessarily confined. Every preparation being made, at three A.M. on the 18th we began to heave her down on the larboard side; but when the purchases were nearly ablock, we found that the strops under the Hecla's bottom, as well as some of the Fury's shore-fasts, had stretched or yielded so much that they could not bring the keel out of water within three or four feet. We immediately eased her up again, and readjusted everything as requisite, hauling her farther in-shore than before by keeping a considerable heel upon her, so as to make less depth of water necessary; and we were then in the act of once more heaving her down, when a snowstorm came on and blew with such violence off the land as to raise a considerable sea. The ships had now so much motion as to strain the gear very much, and even to make the lower masts of the Fury bend in spite of the shores; we were, therefore, most unwillingly compelled to desist until the sea should go down, keeping everything ready to recommence the instant we could possibly do so with safety. The officers and men were now literally so harassed and fatigued as to be scarcely capable of farther exertion without some rest; and on this and one or two other occasions, I noticed more than a single instance of stupor, amounting to a certain degree of failure in intellect, rendering the individual so affected quite unable at first to comprehend the meaning of an order, though still as willing as ever to obey it. It was therefore, perhaps, a fortunate necessity that produced the intermission of labour which the strength of every individual seemed to require.

The gale rather increasing than otherwise during the whole day and night of the 18th, had, on the following morning, when the wind and sea still continued unabated, so destroyed the bergs on which our sole dependance was placed, that they no longer remained aground at low water; the cables had again become slack about them, and the basin we had taken so much pains in forming had now lost all its defences, at least during a portion of every tide. After a night of most anxious consideration and consultation with Captain Hoppner, who was now my messmate in the Hecla, it appeared but too plain that, should the ice again come in, neither ship could any longer be secured from driving on shore. It was therefore determined instantly to prepare the Hecla for sea, making her thoroughly effective in every respect; so that we might at least push *her* out into comparative safety among the ice when it closed again, taking every person on board her, securing the Fury in the best manner we could, and returning to her the instant we were able to do so, to endeavour to get her out, and to carry her to some place of security for heaving down. If, after the Hecla was ready, time should still be allowed us, it was proposed immediately to put into the Fury all that was requisite, or, at least, as much as she could safely carry, and, towing her out into the ice, to try the effect of "foddering" the leaks by sails under those parts of her keel which we knew to be damaged, until some more effectual means could be resorted to.

Having communicated to the assembled officers and ships' companies my views and intentions, we commenced our work; and such was the hearty good-will and indefatigable energy with which it was carried on, that by midnight the whole was accomplished.

On the 20th, therefore, the reloading of the Fury commenced with recruited strength and spirits, such articles being in the first place selected for putting on board as were essentially requisite for her reequipment; for it was my full determination, could we succeed in completing this, not to wait even for rigging a topmast, or getting a lower yard up, in the event of the ice coming in, but to tow her out among the ice, and there put everything sufficiently to rights for carrying her to some place of security. A few hands were also spared, consisting chiefly of two or three

convalescents, and some of the officers, to thrum a sail for putting under the Fury's keel; for we were very anxious to relieve the men at the pumps, which constantly required the labour of eight to twelve hands to keep her free. By a long and hard day's labour, the people not going to rest till two o'clock on the morning of the 21st, we got about fifty tons' weight of coals and provisions on board the Fury, which, in case of necessity, we considered sufficient to give her stability. Having hauled the ships out a little from the shore, and prepared the Hecla for casting by a spring at a moment's notice, all the people except those at the pumps were sent to rest, which, however, they had not enjoyed for two hours, when, at four A.M. on the 21st, another heavy mass coming violently in contact with the bergs and cables, threatened to sweep away every remaining security. More hawsers were run out, however, and enabled us still to hold on; and, after six hours of disturbed rest, all hands were again set to work to get the Fury's anchors, cables, rudder, and spars on board, these being absolutely necessary for her equipment, should we be able to get her out. At two P.M. the crews were called on board to dinner, which they had not finished when several not very large masses of ice drove along the shore near us at a quick rate, and two or three successively coming in violent contact either with the Hecla or the bergs to which she was attached, convinced me that very little additional pressure would tear everything away, and drive both ships on shore. I saw that the moment had arrived when the Hecla could no longer be kept in her present situation with the smallest chance of safety, and therefore immediately got under sail, despatching Captain Hoppner with every individual, except a few for working the ship, to continue getting the things on board the Fury, while the Hecla stood off and on. Captain Hoppner had scarcely been an hour on board the Fury, and was busily engaged in getting the anchors and cables on board, when we observed some large pieces of not very heavy ice closing in with the land near her; and at twenty minutes past four P.M., being an hour and five minutes after the Hecla had cast off, I was informed by signal that the Fury was on shore. As the navigating of the Hecla, with only ten men on board, required constant attention and care, I could not at this time, with propriety, leave the ship to go on board the Fury. I therefore directed Captain Hoppner by telegraph, "if he thought nothing could be done at present, to return on board with all hands until the wind changed;" for this alone, as far as I could see the state of the Fury, seemed to offer the smallest chance of clearing the shore, so as to enable us to proceed with our work, or to attempt hauling the ship off the ground. About seven P.M. Captain Hoppner returned to the Hecla, accompanied by all hands, except an officer with a party at the pumps, reporting to me, that the Fury had been forced aground by the ice pressing on the masses lying near her, and bringing home, if not breaking, the seaward anchor, so that the ship was soon found to have sewed from two to three feet fore and aft.

Finding, soon after Captain Hoppner's return, that the current swept the Hecla a long way to the southward while hoisting up the boats, and that more ice was drifting in towards the shore, I was under the painful necessity of recalling the party at the pumps, rather than incur the risk, now an inevitable one, of parting company with them altogether. Accordingly, Mr. Bird, with the last of the people, came on board at eight o'clock in the evening, having left eighteen inches water in the well, and four pumps being requisite to keep her free. In three hours after Mr. Bird's return, more than half a mile of closely packed ice intervened between the Fury and the open water in which we were beating, and before the morning this barrier had increased to four or five miles in breadth.

We carried a press of canvass all night, with a fresh breeze from the north, to enable us to keep abreast of the Fury, which, on account of the strong southerly current, we could only do by beating at some distance from the land. The breadth of the ice in-shore continued increasing during the day, but we could see no end to the water in which we were beating, either to the southward or eastward. It fell quite calm in the evening, when the breadth of the ice in-shore had increased to six or seven miles. We did not, during the day, perceive any current setting to the southward, but in the course of the night we were drifted four or five leagues to the southwestward.

A southerly breeze enabling us to regain our northing, we ran along the margin of the ice, but were led so much to the eastward by it, that we could approach the ship no nearer than before during the whole day. She appeared to us at this distance to have a much greater heel than when the people left her, which made us still more anxious to get near her. The latitude at noon was 72° 34' 57", making our distance from the Fury twelve miles, which, by the morning of the 25th, had increased to at least five leagues, the ice continuing to "pack" between us and the shore. The wind, however, now gradually drew round to the westward, giving us hopes of a change, and we continued to ply about the margin of the ice, in constant readiness for taking advantage of any opening that might occur. It favoured us so much by streaming off in the course of the day, that by seven P.M. we had nearly reached a channel of clear water, which kept open for seven or eight miles from the land. Being impatient to obtain a sight of the Fury, and the wind becoming light, Captain Hoppner and myself left the Hecla in two boats, and reached the ship at half past nine, or about three quarters of an hour before high water, being the most favourable time of tide for arriving to examine her condition.

We found her heeling so much outward, that her main channels were within a foot of the water; and the large floe-piece, which was still alongside of her, seemed alone to support her below water, and to prevent her falling over still more considerably. The ship had been forced much farther up the beach than before, and she had now in her bilge above nine feet of water, which reached higher than the lower-deck beams. The first hour's inspection of the Fury's condition too plainly assured me that, exposed as she was, and forcibly pressed up upon an open and stony beach, her holds full of water, and the damage of her hull to all appearance and in all probability

more considerable than before, without any adequate means of hauling her off to seaward, or securing her from the farther incursions of the ice, every endeavour of ours to get her off, or *if* got off, to float her to any known place of safety, would be at once utterly hopeless in itself, and productive of extreme risk to our remaining ship.

Mr. Pulfer, the carpenter of the Fury, considered that it would occupy five days to clear the ship of water; that if she were got off, all the pumps would not be sufficient to keep her free, in consequence of the additional damage she seemed to have sustained; and that, if even hove down, twenty days' work, with the means we possessed, would be required for making her sea-worthy. Captain Hoppner and the other officers were therefore of opinion, that an absolute necessity existed for abandoning the Fury. My own opinion being thus confirmed as to the utter hopelessness of saving her, and feeling more strongly than ever the responsibility which attached to me of preserving the Hecla unhurt, it was with extreme pain and regret that I made the signal for the Fury's officers and men to be sent for their clothes, most of which, had been put on shore with the stores.

The whole of the Fury's stores were of necessity left either on board her or on shore, every spare corner that we could find in the Hecla being now absolutely required for the accommodation of our double complement of officers and men, whose cleanliness and health could only be maintained by keeping the decks as clear and well ventilated as our limited space would permit. The spot where the Fury was left is in latitude 72° 42' 30"; the longitude by chronometers is 91° 50' 05"; the dip of the magnetic needle 88° 19' 22"; and the variation 129° 25' westerly.

When the accident first happened to the Fury, I confidently expected to be able to repair her damages in good time to take advantage of a large remaining part of the navigable season in the prosecution of the voyage; and while the clearing of the ship was going on with so much alacrity, and the repairs seemed to be within the reach of our means and resources, I still flattered myself with the same hope. Those expectations were now at an end. With a twelvemonth's provisions for both ship's companies, extending our resources only to the autumn of the following year, it would have been folly to hope for final success, considering the small progress we had already made, the uncertain nature of this navigation, and the advanced period of the present season. I was therefore reduced to the only remaining conclusion, that it was my duty, under all the circumstances of the case, to return to England in compliance with the plain tenour of my instructions. As soon as the boats were hoisted up, therefore, and the anchor stowed, the ship's head was put to the northeastward, with a light air off the land, in order to gain an offing before the ice should again set in-shore.

CHAPTER VII.

Some Remarks upon the Loss of the Fury—And on the Natural History, &c., of the Coast of North Somerset.—Arrive at Neill's Harbour.—Death of John Page.—Leave Neill's Harbour.—Recross the Ice in Baffin's Bay.—Heavy Gales.—Temperature of the Sea.—Arrival in England.

The accident which had now befallen the Fury, and which, when its fatal result was finally ascertained, at once put an end to every prospect of success in the main object of this voyage, is not an event which will excite surprise in the minds of those who are either personally acquainted with the true nature of this precarious navigation, or have had patience to follow me through the tedious and monotonous detail of our operations during seven successive summers. To any persons thus qualified to judge, it will be plain that an occurrence of this nature was at all times rather to be expected than otherwise, and that the only real cause for wonder has been our long exemption from such a catastrophe.

The summer of 1825 was, beyond all doubt, the warmest and most favourable we had experienced since that of 1818. Not more than two or three days occurred, during the months of July and August, in which that heavy fall of snow took place which so commonly converts the aspect of nature in these regions, in a single hour, from the cheerfulness of summer into the dreariness of winter. Indeed, we experienced very little either of snow, rain, or fog: vegetation, wherever the soil allowed any to spring up, was extremely luxuriant and forward; a great deal of the old snow, which had laid on the ground during the last season, was rapidly dissolving even early in August; and every appearance of nature exhibited a striking contrast with the last summer, while it seemed evidently to furnish an extraordinary compensation for its rigour and inclemency.

We have scarcely ever visited a coast on which so little of animal life occurs. For days together, only one or two seals, a single seahorse, and now and then a flock of ducks, were seen. I have already mentioned, however, as an exception to this scarcity of animals, the numberless kittiwakes which were flying about the remarkable spout of water; and we were one day visited, at the place where the Fury was left, by hundreds of white whales, sporting about in the shoal water close to the beach. No black whales were ever seen on this coast. Two reindeer were observed by the gentlemen who extended their walks inland; but this was the only summer in which we did not procure a single pound of venison. Indeed, the whole of our supplies obtained in this way during the voyage, including fish, flesh, and fowl, did not exceed twenty pounds per

man.

The weather continuing nearly calm during the 26th, and the ice keeping at the distance of several miles from the land, gave us an opportunity of clearing decks, and stowing the things belonging to the Fury's crew more comfortably for their accommodation and convenience. I now felt more sensibly than ever the necessity I have elsewhere pointed out, of both ships employed on this kind of service being of the same size, equipped in the same manner, and alike efficient in every respect. The way in which we had been able to apply every article for assisting to heave the Fury down, without the smallest doubt or selection as to size or strength, proved an excellent practical example of the value of being thus able, at a moment's warning, to double the means and resources of either ship in case of necessity. In fact, by this arrangement, nothing but a harbour to secure the ships was wanted to complete the whole operation in as effectual a manner as in a dockyard; for not a shore, or outrigger, or any other precaution was omitted, that is usually attended to on such occasions, and all as good and effective as could anywhere have been desired. The advantages were now scarcely conspicuous in the accommodation of the officers and men, who in a short time became little less comfortable than in their own ship; whereas, in a smaller vessel, comfort, to say nothing of health, would have been quite out of the question.

A breeze from the northward freshening up strong on the 27th, we stretched over to the eastern shore of Prince Regent's Inlet, and this with scarcely any obstruction from ice. We could, indeed, scarcely believe this the same sea which, but a few weeks before, had been loaded with one impenetrable body of closely-packed ice from shore to shore, and as far as the eye could discern to the southward. Having a great deal of heavy work to do in the restowage of the holds, which could not well be accomplished at sea, and also a quantity of water to fill for our increased complement, I determined to take advantage of our fetching the entrance of Neill's Harbour to put in here, in order to prepare the ship completely for crossing the Atlantic. I was desirous also of ascertaining the depth of water in this place, which was wanting to complete Lieutenant Sherer's survey of it. Finding the harbour an extremely convenient one for our purpose, we worked the ship in, and at four P.M. anchored in thirteen fathoms, but afterward shifted out to eighteen, on a bottom of soft mud. Almost at the moment of our dropping the anchor, John Page, seaman of the Fury, departed this life: he had for several months been affected with a scrofulous disorder, and had been gradually sinking for some time.

The funeral of the deceased being performed, we immediately commenced landing the casks and filling water; but, notwithstanding the large streams which, a short time before, had been running into the harbour, we could hardly obtain enough for our purpose by sinking a cask with holes in it. This work, together with the entire restowage of all the holds, occupied the whole of the 29th and 30th, during which time Lieutenant Sherer was employed in completing the survey of the harbour, more especially the soundings, which the presence of the ice had before prevented. These arrangements had just been completed, when the northeasterly wind died away, and was succeeded, on the morning of the 31st, by a light air from the northwest. As soon as we had sent to ascertain that the sea was clear of ice on the outside, and that the breeze which blew in the harbour was the true one, we weighed and stood out, and before noon had cleared the shoals at the entrance.

Finding the wind at northwest in Prince Regent's Inlet, we were barely able to lie along the eastern coast. As the breeze freshened in the course of the day, a great deal of loose ice, in extensive streams and patches, came drifting down from the Leopold Islands, occasioning us some trouble in picking our way to the northward. By carrying a press of sail, however, we were enabled, towards night, to get into clearer water, and by four A.M. on the 1st of September, having beat to windward of a compact body of ice which had fixed itself on the lee shore about Cape York, we soon came into a perfectly open sea in Barrow's Strait, and were enabled to bear away to the eastward. We now considered ourselves fortunate in having got out of harbour when we did, as the ice would probably have filled up every inlet on that shore in a few hours after we left it.

Being again favoured with a fair wind, we now stretched to the eastward, still in an open sea; and our curiosity was particularly excited to see the present situation of the ice in the middle of Baffin's Bay, and to compare it with that in 1824. This comparison we were enabled to make the more fairly, because the season at which we might expect to come to it coincided, within three or four days, with that in which we left it the preceding year. The temperature of the sea-water now increased to 38° soon after leaving the Sound, where it had generally been from 33° to 35°, whereas at the same season last year it rose no higher than 32° anywhere in the neighbourhood, and remained even so high as that only for a very short time. This circumstance seemed to indicate the total absence of ice from those parts of the sea which had last autumn been wholly covered by it. Accordingly, on the 5th, being thirty miles beyond the spot in which we had before contended with numerous difficulties from ice, not a piece was to be seen, except one or two solitary bergs; and it was not till the following day, in latitude 72° 45', and longitude 64° 44', or about one hundred and twenty-seven miles to the eastward of where we made our escape on the 9th of September, 1824, that we fell in with a body of ice so loose and open as scarcely to oblige us to alter our course for it. At three P.M. on the 7th, being in latitude 72° 30', and longitude 60° 05', and having, in the course of eighty miles that we had run through it, only made a single tack, we came to the margin of the ice, and got into an open sea on its eastern side. In the whole course of this distance, the ice was so much spread that it would not, if at all closely "packed," have occupied one third of the same space. There were at this time thirty-nine bergs in sight, and some of them certainly not less than two hundred feet in height.

On the 8th, being in latitude 71° 55', longitude 60° 30', and close to the margin of the ice, we fell in with the Alfred, Ellison, and Elizabeth, whalers, of Hull, all running to the northward, even at this season, to look for whales.

As the whaling-ships were not homeward bound, having as yet had indifferent success in the fishery, I did not consider it necessary to send despatches by them. After an hour's communication with them, and obtaining such information of a public nature as could not fail to be highly interesting to us, we made sail to the southward; while we observed them lying to for some time after, probably to consult respecting the unwelcome information with which we had furnished them as to the whales, not one of which, by some extraordinary chance, we had seen since leaving Neill's Harbour. As this circumstance was entirely new to us, it seems not unlikely that the whales are already beginning to shift their ground, in consequence of the increased attacks which have been made upon them of late years in that neighbourhood.

On the 10th we had an easterly wind, which, gradually freshening to a gale, drew up the Strait from the southward, and blew strong for twentyfour hours from that quarter. The wind moderated on the 11th, but on the following day another gale came on, which for nine or ten hours blew in most tremendous gusts from the same quarter, and raised a heavy sea. We happily came near no ice during the night, or it would scarcely have been possible to keep the ship clear of it. It abated after daylight on the 13th, but continued to blow an ordinary gale for twelve hours longer.

On the 17th, at noon, we had passed to the southward of the Arctic Circle, and from this latitude to that of about 58°, we had favourable winds and weather; but we remarked on this, as on several other occasions during this season, that a northerly breeze, contrary to ordinary observation, brought more moisture with it than any other. In the course of this run, we also observed more driftwood than we had ever done before, which I thought might possibly be owing to the very great prevalence of easterly winds this season driving it farther from the coast of Greenland than usual.

On, the morning of the 24th, notwithstanding the continuance of a favourable breeze, we met, in the latitude of 58-1/2°, so heavy a swell from the northeastward as to make the ship labour violently for four-and-twenty hours. On the morning of the 25th we had again an easterly wind, which in a few hours reduced us to the close-reefed topsails and reefed courses. At eight P.M. it freshened to a gale, which brought us under the main-topsail and storm-staysails, and at seven the following morning it increased to a gale of such violence from N.E.b.N. as does not very often occur at sea in these latitudes. The gusts were at times so tremendous as to set the sea quite in a foam, and threatened to tear the sails out of the bolt-ropes. The wind gradually drew to the westward, with dry weather, after the gale began to abate, and at six A.M. we were enabled to bear up and run to the eastward with a strong gale at N.W.

The indications of the barometer previous to and during this gale deserve to be noticed, because it is only about Cape Farewell that, in coming from the northward down Davis's Strait, this instrument begins to speak a language which has ever been intelligible to us *as a weather glass*. On the 24th, notwithstanding the change of wind from north to east, the mercury rose from 29.51 on that morning, to 29.72 at three A.M. the following day, but fell to 26.39 by nine P.M. with the strong but not violent breeze then blowing. After this it continued to descend very gradually, and had reached 28.84, which was its minimum, at three P.M. on the 26th, after which it continued to blow tremendously hard for eleven or twelve hours, the mercury uniformly, though slowly, ascending to 28.95 during that interval, and afterward to 29.73 as the weather became moderate and fine in the course of the täähree following days.

After this gale the atmosphere seemed to be quite cleared, and we enjoyed a week of such remarkably fine weather as seldom occurs at this season of the year. We had then a succession of strong southerly winds, but we were enabled to continue our progress to the eastward, so as to make Mould Head, towards the northwest end of the Orkney Islands, at daylight on the 10th of October.

After rounding the north end of the Orkneys on the 10th of October, we were, on the 12th, met by a strong southerly wind when off Peterhead. I therefore immediately landed (for the second time) at that place, and, setting off without delay for London, arrived at the Admiralty on the 16th.

The Hecla arrived at Sheerness on the 20th of October, where she was detained for a few days for the purpose of Captain Hoppner, his officers, and ship's company being put upon their trial (according to the customary and indispensable rule in such cases) for the loss of the Fury—when, it is scarcely necessary to add, they received an honourable acquittal. The Hecla then proceeded to Woolwich, and was paid off on the 21st of November.

ACCOUNT
OF
THE ESQUIMAUX

OF
MELVILLE PENINSULA AND THE ADJOINING ISLANDS:

ACCOUNT OF THE ESQUIMAUX.

The number of individuals composing the tribe of Esquimaux assembled at Winter Island and Igloolik was two hundred and nineteen, of whom sixty-nine were men, seventy-seven women, and seventy-three children. Two or three of the men, from their appearance and infirmities, as well as from the age of their children, must have been near seventy; the rest were from twenty to about fifty. The majority of the women were comparatively young, or from twenty to five-and-thirty, and three or four only seemed to have reached sixty. Of the children, about one third were under four years old, and the rest from that age upward to sixteen or seventeen. Out of one hundred and fifty-five individuals who passed the winter at Igloolik, we knew of eighteen deaths and of only nine births.

The stature of these people is much below that of Europeans in general. One man, who was unusually tall, measured five feet ten inches, and the shortest was only four feet eleven inches and a half. Of twenty individuals of each sex measured at Igloolik, the range was:

Men.—From 5 ft. 10 in. to 4 ft. 11 in.

The average height, 5 ft. 5-1/3 in.

Women.—From 5 ft. 3-1/2 in. to 4 ft. 8-3/4 in.

The average height, 5 ft. 0-1/2 in.

The women, however, generally appear shorter than they really are, both from the unwieldy nature of their clothes, and from a habit, which they early acquire, of stooping considerably forward in order to balance the weight of the child they carry in their hood.

In their figure they are rather well formed than otherwise. Their knees are indeed rather large in proportion, but their legs are straight, and the hands and feet, in both sexes, remarkably small. The younger individuals were all plump, but none of them corpulent; the women inclined the most to this last extreme, and their flesh was, even in the youngest individuals, quite loose and without firmness.

Their faces are generally round and full, eyes small and black, nose also small and sunk far in between the cheek bones, but not much flattened. It is remarkable, that one man T=e-~a, his brother, his wife, and two daughters, had good Roman noses, and one of the latter was an extremely pretty young woman. Their teeth are short, thick, and close, generally regular, and in the young persons almost always white. The elderly women were still well furnished in this way, though their teeth were usually a good deal worn down, probably by the habit of chewing the sealskins for making boots.

In the young of both sexes the complexion is clear and transparent, and the skin smooth. The colour of the latter, when divested of oil and dirt, is scarcely a shade darker than that of a deep brunette, so that the blood is plainly perceptible when it mounts into the cheeks. In the old folks, whose faces were much wrinkled, the skin appears of a much more dingy hue, the dirt being less easily, and, therefore, less frequently dislodged from them.

By whatever peculiarities, however, they may in general be distinguished, they are by no means an ill-looking people; and there were among them three or four grown-up persons of each sex, who, when divested of their skin-dresses, their tattooing, and, above all, of their dirt, might have been considered pleasing-looking, if not handsome, people in any town in Europe. This remark applies more generally to the children also; several of whom had complexions nearly as fair as that of Europeans, and whose little bright black eyes gave a fine expression to their countenances.

The hair, both of males and females, is black, glossy, and straight. The men usually wear it rather long, and allow it to hang about their heads in a loose and slovenly manner. The women pride themselves extremely on the length and thickness of their hair; and it was not without reluctance on their part, and the same on that of their husbands, that they were induced to dispose of any of it. Some of the women's hair was tolerably fine, but would not, in this respect, bear a comparison with, that of an Englishwoman. In both sexes it is full of vermin, which they are in the constant habit of picking out and eating; a man and his wife will sit for an hour together performing for each other that friendly office. The women have a comb, which, however, seems more intended for ornament than use, as we seldom or never observed them comb their hair. When a woman's husband is ill, she wears her hair loose, and cuts it off as a sign of mourning if he dies; a custom

agreeing with that of the Greenlanders. The men wear the hair on the upper lip and chin from an inch to an inch and a half in length, and some were distinguished by a little tuft between the chin and lower lip.

In winter every individual, when in the open air, wears two jackets, of which the outer one (*C=app~e t=egg~a*) has the hair outside, and the inner one (*At-t=e=ega*) next the body. Immediately on entering the hut the men take off their outer jacket, beat the snow from it, and lay it by. The upper garment of the females, besides being cut according to a regular and uniform pattern, and sewed with exceeding neatness, which is the case with all the dresses of these people, has also the flaps ornamented in a very becoming manner by a neat border of deerskin, so arranged as to display alternate breadths of white and dark fur. This is, moreover, usually beautified by a handsome fringe, consisting of innumerable long narrow threads of leather hanging down from it. This ornament is not uncommon also in the outer jackets of the men. When seal-hunting, they fasten up the tails of their jackets with a button behind.

Their breeches, of which in winter they also wear two pairs, and similarly disposed as to the fur, reach below the knee, and fasten with a string drawn tight round the waist. Though these have little or no waistband, and do not come very high, the depth of the jackets, which considerably overlap them, serves very effectually to complete the covering of the body.

Their legs and feet are so well clothed, that no degree of cold can well affect them. When a man goes on a sealing excursion, he first puts on a pair of deerskin boots (*All~ekt=eeg~a*) with the hair inside, and reaching to the knee, where they tie. Over these come a pair of shoes of the same material; next a pair of dressed sealskin boots, perfectly water-tight; and over all a corresponding pair of shoes, tying round the instep. These last are made just like the moccasin of a North American Indian, being neatly crimped at the toes, and having several serpentine pieces of hide sewn across the sole to prevent wearing. The water-tight boots and shoes are made of the skin of the small seal (*neitiek*), except the soles, which consist of the skin of the large seal (*oguk~e*); this last is also used for their fishing-lines. When the men are not prepared to encounter wet, they wear an outer boot of deerskin, with the hair outside.

The inner boot of the women, unlike that of the men, is loose round the leg, coming as high as the knee-joint behind, and in front carried up, by a long pointed flap, nearly to the waist, and there fastened to the breeches. The upper boot, with the hair as usual outside, corresponds with the other in shape, except that it is much more full, especially on the outer side, where it bulges out so preposterously as to give the women the most awkward, bow-legged appearance imaginable. This superfluity of boot has probably originated in the custom, still common among the native women of Labrador, of carrying their children in them. We were told that these women sometimes put their children there to sleep; but the custom must be rare among them, as we never saw it practised. These boots, however, form their principal pockets, and pretty capacious ones they are. Here, also, as in jackets, considerable taste is displayed in the selection of different parts of the deerskin, alternate strips of dark and white being placed up and down the sides and front by way of ornament. The women also wear a moccasin (*Itteeg~eg~a*) over all in the winter time.

To judge by the eagerness with which the women received our beads, especially small white ones, as well as any other article of that kind, we might suppose them very fond of personal ornament. Yet of all that they obtained from us in this way at Winter Island, scarcely anything ever made its appearance again during our stay there, except a ring or two on the finger, and some bracelets of beads round the wrist; the latter of these was probably considered as a charm of some kind or other. We found among them, at the time of our first intercourse, a number of black and white beads, disposed alternately on a string of sinew, and worn in this manner. They would also sometimes hang a small bunch of these, or a button or two, in front of their jackets and hair; and many of them, in the course of the second winter, covered the whole front of their jackets with the beads they received from us.

Among their personal ornaments must be reckoned that mode of marking the body called tattooing, which, of the customs not essential to the comfort or happiness of mankind, is perhaps the most extensively practised throughout the world. Among these people it seems to be an ornament of indispensable importance to the women, not one of them being without it. The operation is performed about the age of ten, or sometimes earlier, and has nothing to do with marriage, except that, being considered in the light of a personal charm, it may serve to recommend them as wives. The parts of the body thus marked are their faces, arms, hands, thighs, and in some few women the breasts, but never the feet, as in Greenland. The operation, which, by way of curiosity, most of our gentlemen had practised on their arms, is very expeditiously managed by passing a needle and thread, the latter covered with lampblack and oil, under the epidermis, according to a pattern previously marked out upon the skin. Several stitches being thus taken at once, the thumb is pressed upon the part while the thread is drawn through, by which means the colouring matter is retained, and a permanent dye of a blue tinge imparted to the skin. A woman expert at this business will perform it very quickly and with great regularity, but seldom without drawing blood in many places, and occasioning some inflammation. Where so large a portion of the surface of the body is to be covered, it must become a painful as well as tedious process, especially as, for want of needles, they often use a strip of whalebone as a substitute. For those parts where a needle cannot conveniently be passed under the skin, they use the method by puncture, which is common in other countries, and by which our seamen frequently mark their hands and arms. Several of the men were marked on the back part of their hands; and with them we understood it to be considered as a *souvenir* of some

distant deceased person who had performed it.

In their winter habitations, I have before mentioned that the only materials employed are snow and ice; the latter being made use of for the windows alone. The work is commenced by cutting from a drift of hard and compact snow a number of oblong slabs, six or seven inches thick and about two feet in length, and laying them edgeways on a level spot, also covered with snow, in a circular form, and of a diameter from eight to fifteen feet, proportioned to the number of occupants the hut is to contain. Upon this as a foundation is laid a second tier of the same kind, but with the pieces inclining a little inward, and made to fit closely to the lower slabs and to each other by running a knife adroitly along the under part and sides. The top of this tier is now prepared for the reception of a third, by squaring it off smoothly with a knife, all which is dexterously performed by one man standing within the circle and receiving the blocks of snow from those employed in cutting them without. When the wall has attained a height of four or five feet, it leans so much inward as to appear as if about to tumble every moment; but the workmen still fearlessly lay their blocks of snow upon it, until it is too high any longer to furnish the materials to the builder in this manner. Of this he gives notice by cutting a hole close to the ground in that part where the door is intended to be, which is near the south side, and through this the snow is now passed. Thus they continue till they have brought the sides nearly to meet in a perfect and well-constructed dome, sometimes nine or ten feet high in the centre; and this they take considerable care in finishing, by fitting the last block or *keystone* very nicely in the centre, dropping it into its place from the outside, though it is still done by the man within. The people outside are in the mean time occupied in throwing up snow with the *p~oo=all~er=ay* or snow shovel, and in stuffing in little wedges of snow where holes have been accidentally left.

The builder next proceeds to let himself out by enlarging the proposed doorway into the form of a Gothic arch, three feet high and two feet and a half wide at the bottom, communicating with which they construct two passages, each from ten to twelve feet long and from four to five feet in height, the lowest being that next the hut. The roofs of these passages are sometimes arched, but more generally made flat by slabs laid on horizontally. In first digging the snow for building the hut, they take it principally from the part where the passages are to be made, which purposely brings the floor of the latter considerably lower than that of the hut, but in no part do they dig till the bare ground appears.

The work just described completes the walls of a hut, if a single apartment only be required; but if, on account of relationship, or from any other cause, several families are to reside under one roof, the passages are made common to all, and the first apartment (in that case made smaller) forms a kind of antechamber, from which you go through an arched doorway five feet high into the inhabited apartments. When there are three of these, which is generally the case, the whole building, with its adjacent passages, forms a tolerably regular cross.

For the admission of light into the huts, a round hole is cut on one side of the roof of each apartment, and a circular plate of ice, three or four inches thick and two feet in diameter, let into it. The light is soft and pleasant, like that transmitted through ground glass, and it is quite sufficient for every purpose. When, after some time, these edifices become surrounded by drift, it is only by the windows, as I have before remarked, that they could be recognised as human habitations. It may, perhaps, then be imagined how singular is their external appearance at night, when they discover themselves only by a circular disk of light transmitted through the windows from the lamps within.

The next thing to be done is to raise a bank of snow, two and a half feet high, all round the interior of each apartment, except on the side next the door. This bank, which is neatly squared off, forms their beds and fireplace, the former occupying the sides, and the latter the end opposite the door. The passage left open up to the fireplace is between three and four feet wide. The beds are arranged by first covering the snow with a quantity of small stones, over which are laid their paddles, tentpoles, and some blades of whalebone: above these they place a number of little pieces of network, made of thin slips of whalebone, and lastly a quantity of twigs of birch[008] and of the *andromeda tetragona*. Their deerskins, which are very numerous, can now be spread without risk of their touching the snow; and such a bed is capable of affording not merely comfort, but luxurious repose, in spite of the rigour of the climate. The skins thus used as blankets are made of a large size and bordered, like some of the jackets, with a fringe of long, narrow slips of leather, in which state a blanket is called *k=eipik*.

The fire belonging to each family consists of a single lamp, or shallow vessel of *lapis ollaris*, its form being the lesser segment of a circle. The wick, composed of dry moss rubbed between the hands till it is quite inflammable, is disposed along the edge of the lamp on the straight side, and a greater or smaller quantity lighted, according to the heat required or the fuel that can be afforded. When the whole length of this, which is sometimes above eighteen inches, is kindled, it affords a most brilliant and beautiful light, without any perceptible smoke or any offensive smell. The lamp is made to supply itself with oil, by suspending a long, thin slice of whale, seal, or seahorse blubber near the flame, the warmth of which causes the oil to drip into the vessel until the whole is extracted. Immediately over the lamp is fixed a rude and rickety framework of wood, from which their pots are suspended, and serving also to sustain a large hoop of bone, having a net stretched tight within it. This contrivance, called *Inn~et~at*, is intended for the reception of any wet things, and is usually loaded with boots, shoes, and mittens.

The fireplace just described as situated at the upper end of the apartment, has always two lamps facing different ways, one for each family occupying the corresponding bedplace. There is

frequently, also, a smaller and less-pretending establishment on the same model—lamp, pot, net, and all—in one of the corners next the door; for one apartment sometimes contains three families, which are always closely related; and no married woman, or even a widow without children, is without her separate fireplace.

With all the lamps lighted and the hut full of people and dogs, a thermometer placed on the net over the fire indicated a temperature of 38°; when removed two or three feet from this situation, it fell to 31°; and, placed close to the wall, stood at 23°, the temperature of the open air at the time being 25° below *zero*. A greater degree of warmth than this produces extreme inconvenience by the dropping from the roofs. This they endeavour to obviate by applying a little piece of snow to the place from which a drop proceeds, and this adhering, is for a short time an effectual remedy; but for several weeks in the spring, when the weather is too warm for these edifices, and still too cold for tents, they suffer much on this account.

The most important, perhaps, of the domestic utensils, next to the lamp already described, are the *=o=otk~o~os~e~eks*, or stone pots for cooking. These are hollowed out of solid *lapis ollaris*, of an oblong form, wider at the top than at the bottom all made in similar proportion; though of various sizes corresponding with the dimensions of the lamp which burns under it. The pot is suspended by a line of sinew at each end to the framework over the fire, and thus becomes so black on every side that the original colour of the stone is in no part discernible. Many of them were cracked quite across in several places, and mended by sewing with sinew or rivets of copper, iron, or lead, so as, with the assistance of a lashing and a due proportion of dirt, to render them quite watertight.

Besides the ootkooseeks, they have circular and oval vessels of whalebone, of various sizes, which, as well as their ivory knives made out of a walrus's tusk, are precisely similar to those described on the western coast of Baffin's Bay in 1820. They have also a number of smaller vessels of skin sewed neatly together; and a large basket of the same material, resembling a common sieve in shape, but with the bottom close and tight, is to be seen in every apartment. Under every lamp stands a sort of "save-all," consisting of a small skin basket for catching the oil that falls over. Almost every family was in possession of a wooden tray very much resembling those used to carry butcher's meat in England, and of nearly the same dimensions, which we understood them to have procured by way of Noowook. They had a number of the bowls or cups already once or twice alluded to as being made out of the thick root of the horn of the musk-ox. Of the smaller part of the same horn they also form a convenient drinking-cup, sometimes turning it up artificially about one third from the point, so as to be almost parallel to the other part, and cutting it full of small notches as a convenience in grasping it. These or any other vessels for drinking they call *Imm=o=ochiuk*.

Besides the ivory knives, the men were well supplied with a much more serviceable kind, made of iron, and called *panna*. The form of this knife is very peculiar, being seven inches long, two and a quarter broad, quite straight and flat, pointed at the end, and ground equally sharp at both edges; this is firmly secured into a handle of bone or wood about a foot long, by two or three iron rivets, and has all the appearance of a most destructive spearhead, but is nevertheless put to no other purpose than that of a very useful knife, which the men are scarcely ever without, especially on their sealing excursions. For these, and several knives of European form, they are probably indebted to an indirect communication with our factories in Hudson's Bay. The same may be observed of the best of their women's knives (*ooloo*), on one of which, of a larger size than usual, were the names of "Wild and Sorby." When of their own manufacture, the only iron part was a little narrow slip let into the bone and secured by rivets.

Of the horn of the musk-ox they make also very good spoons, much like ours in shape; and I must not omit to mention their marrow spoons (*patt=ekniuk*, from *p=att~ek*, marrow), made out of long, narrow, hollowed pieces of bone, of which every housewife has a bunch of half a dozen or more tied together, and generally attached to her needle-case.

For the purpose of obtaining fire, the Esquimaux use two lumps of common iron pyrites, from which sparks are struck into a little leathern case containing moss well dried and rubbed between the hands. If this tinder does not readily catch, a small quantity of the white floss of the seed of the ground-willow is laid above the moss. As soon as a spark has caught, it is gently blown till the fire has spread an inch around, when, the pointed end of a piece of oiled wick being applied, it soon bursts into a flame—the whole process having occupied perhaps two or three minutes.

In enumerating the articles of their food, we might, perhaps, give a list of every animal inhabiting these regions, as they certainly will, at times, eat any one of them. Their principal dependance, however, is on the reindeer (*t=o=okto~o*); musk-ox (*=o=om~ingm~uk*), in the parts where this animal is found; whale (*=agg~aw~ek*); walrus (*=ei-~u-~ek*); the large and small seal (*=og~uke* and *n~eitiek*); and two sorts of salmon, the *=ew~ee-t=ar~oke* (*salmo alpinus?*) and *ichl=u~ow~oke*. The latter is taken by hooks in fresh-water lakes, and the former by spearing in the shoal water of certain inlets of the sea. Of all these animals, they can only procure in the winter the walrus and small seal upon this part of the coast; and these at times, as we have seen, in scarcely sufficient quantity for their subsistence.

They certainly, in general, prefer eating their meat cooked, and, while they have fuel, they usually boil it; but this is a luxury, and not a necessary to them. Oily as the nature of their principal food is, yet they commonly take an equal proportion of lean to their fat, and, unless very hungry, do not eat it otherwise. Oil they seldom or never use in any way as a part of their general

diet; and even our butter, of which they were fond, they would not eat without a due quantity of bread.[009] They do not like salt meat as well as fresh, and never use salt themselves; but ship's pork or even a red herring did not come amiss to them. Of pea-soup they would eat as much as the sailors could afford to give them; and that word was the only one, with the exception of our names, which many of them ever learned in English. Among their own luxuries must be mentioned a rich soup called k=ay~o, made of blood, gravy, and water, and eaten quite hot.

Their only drink is water; and of this, when they can procure it, they swallow an inconceivable quantity; so that one of the principal occupations of the women during the winter is the thawing of snow in the ootkooseeks for this purpose. They cut it into thin slices, and are careful to have it clean, on which account they will bring it from a distance of fifty yards from the huts. They have an extreme dislike to drinking water much above the temperature of 32°. In eating their meals, the mistress of the family, having previously cooked the meat, takes a large lump out of the pot with her fingers, and hands it to her husband, who, placing a part of it between his teeth, cuts it off with a large knife in that position, and then passes the knife and meat together to his next neighbour. In cutting off a mouthful of meat, the knife passes so close to their lips, that nothing but constant habit could ensure them from the danger of the most terrible gashes; and it would make an English mother shudder to see the manner in which children five or six years old are at all times freely trusted with a knife to be used in this way.

The length of one of the best of seven canoes belonging to these Esquimaux was twenty-five feet, including a narrow-pointed projection, three feet long at each end, which turns a little upward from the horizontal. The extreme breadth, which is just before the circular hole, was twenty-one inches, and the depth ten inches and a half. The plane of the upper surface of the canoe, except in the two extreme projections, bends downward a little from the centre towards the head and stern, giving it the appearance of what in ships is called "broken-backed." The gunwales are of fir, in some instances of one piece, three or four inches broad in the centre, and tapering gradually away towards the ends. The timbers, as well as the fore-and-aft connecting pieces, are of the same material, the former being an inch square, and sometimes so close together as to require between forty and fifty of them in one canoe: which, when thus "in frame," is one of the prettiest things of the kind that can be imagined. The skin with which the canoe is covered is exclusively that of the *neitiek*, prepared by scraping off the hair and fat with an *ooloo*, and stretching it tight on a frame over the fire; after which and a good deal of chewing, it is sown on by the women with admirable neatness and strength. Their paddles have a blade at each end, the whole length being nine feet and a half; the blades are covered with a narrow plate of bone round the ends to secure them from splitting; they are always made of fir, and generally of several pieces scarfed and woolded together.

In summer they rest their canoes upon two small stones raised four feet from the ground, and in winter on a similar structure of snow; in one case to allow them to dry freely, and in the other to prevent the snowdrift from covering, and the dogs from eating them. The difficulty of procuring a canoe may be concluded from the circumstance of there being at Winter Island twenty men able to manage one, and only seven canoes among them. Of these, indeed, only three or four were in good repair; the rest being wholly or in part stripped of the skin, of which a good deal was occasionally cut off during the winter, to make boots, shoes, and mittens for our people. We found no *oomiak*, or woman's boat, among them, and understood that they were not in the habit of using them, which may in part be accounted for by their passing so much of the summer in the interior; they knew very well, however, what they were, and made some clumsy models of them for our people.

In the weapons used for killing their game there is considerable variety, according to the animal of which they are in pursuit. The most simple of these is the *=o=on~ak*, which they use only for killing the small seal. It consists of a light staff of wood, four feet in length, having at one end the point of a narwhal's horn, from ten to eighteen inches long, firmly secured by rivets and wooldings; at the other end is a smaller and less effective point of the same kind. To prevent losing the ivory part in case of the wood breaking, a stout thong runs along the whole length of the wood, each end passing through a hole in the ivory, and the bight secured in several places to the staff. In this weapon, as far as it has yet been described, there is little art or ingenuity displayed; but a considerable degree of both in an appendage called *si=atk~o*, consisting of a piece of bone three inches long, and having a point of iron at one end, and at the other end a small hole or socket to receive the point of the oonak. Through the middle of this instrument is secured the *=allek*, or line of thong, of which every man has, when sealing, a couple of coils, each from four to six fathoms long, hanging at his back.

When a seal is seen, the siatko is taken from a little leathern case, in which, when out of use, it is carefully enclosed, and attached by its socket to the point of the spear; in this situation it is retained by bringing the allek tight down and fastening it round the middle of the staff by what seamen call a "slippery-hitch," which may instantly be disengaged by pulling on the other end of the line. As soon as the spear has been thrown and the animal struck, the siatko is thus purposely separated; and being slung by the middle, now performs very effectually the important office of a barb, by turning at right angles to the direction in which it has entered the orifice. This device is in its principle superior even to our barb; for the instant any strain is put upon the line, it acts like a toggle, opposing its length to a wound only as wide as its own breadth.

The *=akl~eak* or *akl=e=eg~a*, used for the large seal, has a blown bladder attached to the staff, for the purpose of impeding the animal in the water.

The third and largest weapon is that called *katteelik*, with which the walrus and whale are attacked. The staff of this is not longer, but much stouter than that of the others, especially towards the middle, where there is a small shoulder of ivory securely lashed to it for the thumb to rest against, and thus to give additional force in throwing or thrusting the spear. The ivory point of this weapon is made to fit into a socket at the end of the staff, where it is secured by double thongs in such a manner as steadily to retain its position when a strain is put upon it in the direction of its length, but immediately disengaging itself with a sort of spring when any lateral strain endangers its breaking. The siatko is always used with this spear; and to the end of the allek, when the animal pursued is in open water, they attach a whole sealskin (*h~ow-w=ut-t~a*), inflated like a bladder, for the purpose of tiring it out in its progress through the water.

They have a spear called *~ippoo* for killing deer in the water. They describe it as having a light staff and a small head of iron; but they had none of these so fitted in the winter. The *n=ug~uee*, or dart for birds, has, besides its two ivory prongs at the end of the staff, three divergent ones in the middle of it, with several small double barbs upon them turning inward. The spear for salmon or other fish, called *k=ak~eew~ei*, consists of a wooden staff, with a spike of bone or ivory, three inches long, secured at one end. On each side of the spike is a curved prong, much like that of a pitchfork, but made of flexible horn, which gives them a spring, and having a barb on the inner part of the point turning downward. Their fishhooks (*kakli=okio*) consist only of a nail crooked and pointed at one end, the other being let into a piece of ivory to which the line is attached. A piece of deer's horn or curved bone only a foot long is used as a rod, and completes this very rude part of their fishing-gear.

Of their mode of killing seals in the winter I have already spoken in the course of the foregoing narrative, as far as we were enabled to make ourselves acquainted with it. In their summer exploits on the water, the killing of the whale is the most arduous undertaking which they have to perform; and one cannot sufficiently admire the courage and activity which, with gear apparently so inadequate, it must require to accomplish this business. Okotook, who was at the killing of two whales in the course of a single summer, and who described the whole of it quite *con amore*, mentioned the names of thirteen men who, each in his canoe, had assisted on one of these occasions. When a fish is seen lying on the water, they cautiously paddle up astern of him, till a single canoe, preceding the rest, comes close to him on one quarter, so as to enable the man to drive the *katteelik* into the animal with all the force of both arms. This having the *siatko*, a long *allek*, and the inflated sealskin attached to it, the whale immediately dives, taking the whole apparatus with him except the katteelik, which, being disengaged in the manner before described, floats to the surface, and is picked up by its owner. The animal reappearing after some time, all the canoes again paddle towards him, some warning being given by the sealskin buoy floating on the surface. Each man being furnished like the first, they repeat the blows as often as they find opportunity, till perhaps, every line has been thus employed. After pursuing him in this manner sometimes for half a day, he is at length so wearied by the resistance of the buoys, and exhausted by the loss of blood, as to be obliged to rise more and more often to the surface, when, by frequent wounds with their spears, they succeed in killing him, and tow their prize in triumph to the shore.

In attacking the walrus in the water they use the same gear, but much more caution than with the whale, always throwing the *katteelik* from some distance, lest the animal should attack the canoe and demolish it with his tusks. The walrus is, in fact, the only animal with which they use any caution of this kind. They like the flesh better than that of the seal; but venison is preferred by them to either of these, and, indeed, to any other kind of meat.

At Winter Island they carefully preserved the heads of all the animals killed during the winter, except two or three of the walrus, which we obtained with great difficulty. As the blood of the animals which they kill is all used as food of the most luxurious kind, they are careful to avoid losing any portion of it; for this purpose they carry with them on their excursions a little instrument of ivory called *t~oop=o=ot~a*, in form and size exactly resembling a "twenty-penny" nail, with which they stop up the orifice made by the spear, by thrusting it through the skin by the sides of the wound, and securing it with a twist.

One of the best of their bows was made of a single piece of fir, four feet eight inches in length, flat on the inner side and rounded on the outer, being five inches in girth about the middle, where, however, it is strengthened on the concave side, when strung, by a piece of bone ten inches long, firmly secured by treenails of the same material. At each end of the bow is a knob of bone, or sometimes of wood covered with leather, with a deep notch for the reception of the string. The only wood which they can procure, not possessing sufficient elasticity combined with strength, they ingeniously remedy the defect by securing to the back of the bow, and to the knobs at each end, a quantity of small lines, each composed of a plat or "sinnet" of three sinews. The number of lines thus reaching from end to end is generally about thirty; but, besides these, several others are fastened with hitches round the bow, in pairs, commencing eight inches from one end, and again united at the same distance from the other, making the number of strings in the middle of the bow sometimes amount to sixty. These being put on with the bow bent somewhat the contrary way, produce a spring so strong as to require considerable force as well as knack in stringing it, and giving the requisite velocity to the arrow. The bow is completed by a woolding round the middle, and a wedge or two, here and there, driven in to tighten it. A bow in one piece is, however, very rare; they generally consist of from two to five pieces of bone of unequal lengths, secured together by rivets and treenails.

The arrows vary in length from twenty to thirty inches, according to the materials that can be

commanded. About two thirds of the whole length is of fir rounded, and the rest of bone let by a socket into the wood, and having a head of thin iron, or more commonly of slate, secured into a slit by two treenails. Towards the opposite end of the arrow are two feathers, generally of the spotted oval, not very neatly lashed on. The bowstring consists of from twelve to eighteen small lines of three-sinew sinnet, having a loose twist, and with a separate becket of the same size for going over the knobs at the end of the bow.

We tried their skill in archery by getting them to shoot at a mark for a prize, though with bows in extremely bad order on account of the frost, and their hands very cold. The mark was two of their spears stuck upright in the snow, their breadth being three inches and a half. At twenty yards they struck this every time; at thirty, sent the arrows always within an inch or two of it; and at forty or fifty yards, I should think, would generally hit a fawn if the animal stood still. These weapons are perhaps sufficient to inflict a mortal wound at something more than that distance, for which, however, a strong arm would be required. The animals which they kill with the bow and arrow for their subsistence are principally the musk-ox and deer, and less frequently the bear, wolf, fox, hare, and some of the smaller animals.

The reindeer are killed by the Esquimaux in great abundance in the summer season, partly by driving them from islands or narrow necks of land into the sea, and then spearing them from their canoes; and partly by shooting them from behind heaps of stones raised for the purpose of watching them, and imitating their peculiar bellow or grunt. Among the various artifices which they employ for this purpose, one of the most ingenious consists in two men walking directly *from* the deer they wish to kill, which almost always follows them. As soon as they arrive at a large stone, one of the men hides behind it with his bow, while the other continuing to walk on, soon leads the deer within range of his companion's arrows. They are also very careful to keep to leeward of the deer, and will scarcely go out after them at all when the weather is calm. For several weeks in the course of the summer, some of these people almost entirely give up their fishery on the coast, retiring to the banks of lakes several miles in the interior, which they represent as large and deep, and abounding with salmon, while the pasture near them affords good feeding to numerous herds of deer.

The distance to which these people extend their inland migrations, and the extent of coast of which they possess a personal knowledge, are really very considerable. A great number of them, who were born at Amitioke and Igloolik, had been to *Noowook*, or nearly as far south as Chesterfield Inlet, which is about the *ne plus ultra* of their united knowledge in a southerly direction. Okotook and a few others of the Winter Island tribe had extended their peregrinations a considerable distance to the northward, over the large insular piece of land to which we have applied the name of Cockburn Island; which they described as high land, and the resort of numerous reindeer. By the information afterward obtained when nearer the spot, we had reason to suppose this land must reach beyond the seventy-second degree of latitude in a northerly direction; so that these people possess a personal knowledge of the Continent of America and its adjacent islands, from that parallel to Chesterfield Inlet in 63-3/4°, being a distance of more than five hundred miles reckoned in a direct line, besides the numerous turnings and windings of the coast along which they are accustomed to travel. Ewerat and some others had been a considerable distance up the Wager River; but no record had been preserved among them of Captain Middleton's visit to that inlet about the middle of the last century.

Of the Indians they know enough by tradition to hold them in considerable dread, on account of their cruel and ferocious manners. When, on one occasion, we related the circumstances of the inhuman massacre described by Hearne, they crowded round us in the hut, listening with mute and almost breathless attention; and the mothers drew their children closer to them, as if to guard them from the dreadful catastrophe.

The Esquimaux take some animals in traps, and by a very ingenious contrivance of this kind they caught two wolves at Winter Island. It consists of a small house built of ice, at one end of which a door, made of the same plentiful material, is fitted to slide up and down in a groove; to the upper part of this a line is attached, and, passing over the roof, is let down into the trap at the inner end, and there held by slipping an eye in the end of it over a peg of ice left for the purpose. Over the peg, however, is previously placed a loose grummet, to which the bait is fastened, and a false roof placed over all to hide the line. The moment the animal drags at the bait, the grummet slips off the peg, bringing with it the line that held up the door, and this, falling down, closes the trap and secures him,

A trap for birds is formed by building a house of snow just large enough to contain one person, who closes himself up in it. On the top is left a small aperture, through which the man thrusts one of his hands to secure the bird the moment he alights to take away a bait of meat laid beside it. It is principally gulls that are taken thus; and the boys sometimes amuse themselves in this manner. A trap in which they catch foxes has been mentioned in another place.

The sledges belonging to these Esquimaux were in general large and heavily constructed, being more adapted to the carriage of considerable burdens than to very quick travelling. They varied in size, being from six feet and a half to nine feet in length, and from eighteen inches to two feet in breadth. Some of those at Igloolik were of larger dimensions, one being eleven feet in length, and weighing two hundred and sixty-eight pounds, and two or three others above two hundred pounds. The runners are sometimes made of the right and left jaw-bones of a whale; but more commonly of several pieces of wood or bone scarfed and lashed together, the interstices being filled, to make all smooth and firm, with moss stuffed in tight, and then cemented by throwing

water to freeze upon it. The lower part of the runner is shod with a plate of harder bone, coated with fresh-water ice to make it run smoothly, and to avoid wear and tear, both which purposes are thus completely answered. This coating is performed with a mixture of snow and fresh water about half an inch thick, rubbed over it till it is quite smooth and hard upon the surface, and this is usually done a few minutes before setting out on a journey. When the ice is only in part worn off, it is renewed by taking some water into the mouth, and spirting it over the former coating. We noticed a sledge which was extremely curious, on account of one of the runners and a part of the other being constructed without the assistance of wood, iron, or bone of any kind. For this purpose, a number of sealskins being rolled up and disposed into the requisite shape, an outer coat of the same kind was sewed tightly round them; this formed the upper half of the runner, the lower part of which consisted entirely of moss moulded while wet into the proper form, and being left to freeze, adhering firmly together and to the skins. The usual shoeing of smooth ice beneath completed the runner, which, for more than six months out of twelve, in this climate, was nearly as hard as any wood; and for winter use, no way inferior to those constructed of more durable materials. The cross-pieces which form the bottom of the sledges are made of bone, wood, or anything they can muster. Over these is generally laid a sealskin as a flooring, and in the summer time a pair of deer's horns are attached to the sledge as a back, which in the winter are removed, to enable them, when stopping, to turn the sledge up, so as to prevent the dogs running away with it. The whole is secured by lashings of thong, giving it a degree of strength combined with flexibility which perhaps no other mode of fastening could effect.

The colour of the dogs varies from a white, through brindled, to black and white, or almost entirely black. Their hair in the winter is from three to four inches long; but, besides this, nature furnishes them, during this rigorous season, with a thick under coating of close, soft wool, which they begin to cast in the spring. While thus provided, they are able to withstand the most inclement weather without suffering from the cold; and, at whatever temperature the atmosphere may be, they require nothing but a shelter from the wind to make them comfortable, and even this they do not always obtain. They are also wonderfully enabled to endure the cold even on those parts of the body which are not thus protected; for we have seen a young puppy sleeping, with its bare paw laid on an ice-anchor, with the thermometer at-30°, which, with one of our dogs, would have produced immediate and intense pain, if not subsequent mortification. They never bark, but have a long, melancholy howl like that of the wolf, and this they will sometimes perform in concert for a minute or two together. They are, besides, always snarling and fighting among one another, by which several of them are generally lame. When much caressed and well fed, they become quite familiar and domestic: but this mode of treatment does not improve their qualities as animals of draught. Being desirous of ascertaining whether these dogs are wolves in a state of domestication, a question which we understood to have been the subject of some speculation, Mr. Skeoch, at my request, made a skeleton of each, when the number of all the vertebrae was found to be the same in both,[010] and to correspond with the well-known anatomy of the wolf.

When drawing a sledge, the dogs have a simple harness (*annoo*) of deer or seal skin going round the neck by one bight, and another for each of the fore legs, with a single thong leading over the back and attached to the sledge as a trace. Though they appear at first sight to be huddled together without regard to regularity, there is, in fact, considerable attention paid to their arrangement, particularly in the selection of a dog of peculiar spirit and sagacity, which is allowed, by a longer trace, to precede the rest as leader, and to which, in turning to the right or left, the driver usually addresses himself. This choice is made without regard to age or sex, and the rest of the dogs take precedence according to their training or sagacity, the least effective being put nearest the sledge. The leader is usually from eighteen to twenty feet from the fore part of the sledge, and the hindermost dog about half that distance, so that when ten or twelve are running together, several are nearly abreast of each other. The driver sits quite low on the fore part of the sledge, with his feet overhanging the snow on one side, and having in his hand a whip, of which the handle, made either of wood, bone, or whalebone, is eighteen inches, and the lash more than as many feet in length. The part of the thong next the handle is platted a little way down to stiffen it and give it a spring, on which much of its use depends; and that which composes the lash is chewed, by the women to make it flexible in frosty weather. The men acquire from their youth considerable expertness in the use of this whip, the lash of which is left to trail along the ground by the side of the sledge, and with which they can inflict a very severe blow on any dog at pleasure. Though the dogs are kept in training entirely by fear of the whip, and indeed without it would soon have their own way, its immediate effect is always detrimental to the draught of the sledge; for not only does the individual that is struck draw back and slacken his trace, but generally turns upon his next neighbour, and this, passing on to the next, occasions a general divergency, accompanied by the usual yelping and showing of teeth. The dogs then come together again by degrees, and the draught of the sledge is accelerated; but even at the best of times, by this rude mode of draught, the traces of one third of the dogs form an angle of thirty or forty degrees on each side of the direction in which the sledge is advancing. Another great inconvenience attending the Esquimaux method of putting the dogs to, besides that of not employing their strength to the best advantage, is the constant entanglement of the traces by the dogs repeatedly doubling under from side to side to avoid the whip, so that, after running a few miles, the traces always require to be taken off and cleared.

In directing the sledge the whip acts no very essential part, the driver for this purpose using certain words, as the carters do with us, to make the dogs turn more to the right or left. To these a good leader attends with admirable precision, especially if his own name be repeated at the

same time, looking behind over his shoulder with great earnestness, as if listening to the directions of the driver. On a beaten track, or even where a single foot or sledge mark is occasionally discernible, there is not the slightest trouble in guiding the dogs; for even in the darkest night and in the heaviest snowdrift, there is little or no danger of their losing the road, the leader keeping his nose near the ground, and directing the rest with wonderful sagacity. Where, however, there is no beaten track, the best driver among them makes a terribly circuitous course, as all the Esquimaux roads plainly show; these generally occupying an extent of six miles, when with a horse and sledge the journey would scarcely have amounted to five. On rough ground, as among hummocks of ice, the sledge would be frequently overturned or altogether stopped if the driver did not repeatedly get off, and, by lifting or drawing it to one side, steer it clear of those accidents. At all times, indeed, except on a smooth and well-made road, he is pretty constantly employed thus with his feet, which, together with his never-ceasing vociferations and frequent use of the whip, renders the driving of one of these vehicles by no means a pleasant or easy task. When the driver wishes to stop the sledge, he calls out "Wo, woa," exactly as our carters do; but the attention paid to his command depends altogether on his ability to enforce it. If the weight is small and the journey homeward, the dogs are not to be thus delayed; the driver is therefore obliged to dig his heels into the snow to obstruct their progress; and, having thus succeeded in stopping them, he stands up with one leg before the foremost crosspiece of the sledge, till, by means of laying the whip gently over each dog's head, he has made them all lie down. He then takes care not to quit his position; so that, should the dogs set off, he is thrown upon the sledge, instead of being left behind by them.

With heavy loads the dogs draw best with one of their own people, especially a woman, walking a little way ahead; and in this case they are sometimes enticed to mend their pace by holding a mitten to the mouth, and then making the motion of cutting it with a knife, and throwing it on the snow, when the dogs, mistaking it for meat, hasten forward to pick it up. The women also entice them from the huts in a similar manner. The rate at which they travel depends, of course, on the weight they have to draw and the road on which their journey is performed. When the latter is level, and very hard and smooth, constituting what in other parts of North America is called "good sleighing," six or seven dogs will draw from eight to ten hundred weight, at the rate of seven or eight miles an hour for several hours together, and will easily, under those circumstances, perform a journey of fifty or sixty miles a day; on untrodden snow, five-and-twenty or thirty miles would be a good day's journey. The same number of well-fed dogs, with a weight of only five or six hundred pounds (that of the sledge included), are almost unmanageable, and will, on a smooth road, run any way they please at the rate of ten miles an hour. The work performed by a greater number of dogs is, however, by no means in proportion to this; owing to the imperfect mode already described of employing the strength of these sturdy creatures, and to the more frequent snarling and fighting occasioned by an increase of numbers.

In the summer, when the absence of snow precludes the use of sledges, the dogs are still made useful on journeys and hunting excursions, by being employed to carry burdens in a kind of saddle-bags laid across their shoulders. A stout dog thus accoutred will accompany his master, laden with a weight of about twenty or twenty-five pounds.

The scent of the Esquimaux dogs is excellent; and this property is turned to account by their masters in finding the seal-holes, which these invaluable animals will discover entirely by the smell at a very great distance. The track of a single deer upon the snow will in like manner set them off at a full gallop when travelling, at least a quarter of a mile before they arrive at it, when they are with difficulty made to turn in any other direction; and the Esquimaux are accustomed to set them after those animals to hunt them down when already wounded with an arrow. In killing bears the dogs act a very essential part; and two or three of them, when led on by a man, will eagerly attack one of those ferocious creatures. An Esquimaux seldom uses any other weapon than his spear and *panna* in this encounter, for which the readiness of the dogs may be implied from the circumstance of the word "nen-nook" (bear) being often used to encourage them when running in a sledge. Indeed, the only animal which they are not eager to chase is the wolf, of which the greater part of them seem to have an instinctive dread, giving notice at night of their approach to the huts by a loud and continued howl. There is not one dog in twenty among them that will voluntarily, or, indeed, without a great deal of beating, take the water, if they think it is out of their depth, and the few that would do so were spoken of as extraordinary exceptions.

The Esquimaux in general treat their dogs much as an unfeeling master does his slaves; that is, they take just as much care of them as their own interest is supposed to require. The bitches with young are in the winter allowed to occupy a part of their own beds, where they are carefully attended and fed by the women, who will even supply the young ones with meat and water from their mouths as they do their own children, and not unfrequently also carry them in their hoods to take care of them. It is probably on this account that the dogs are always so much attached to the women, who can at any time catch them or entice them from the huts when the men fail. Two females that were with young on board the Fury in the month of February, brought forth six and seven at a litter, and the former number were all females. Their feeding, which, both in summer and winter, principally consists of k=a~ow, or the skin and part of the blubber of the walrus, is during the latter season very precarious, their masters having then but little to spare. They therefore become extremely thin at that time of the year, and would scarcely be recognised as the same animals as when regularly fed in the summer. No wonder, therefore, that they will eat almost anything, however tough or filthy, and that neither whipping nor shouting will prevent their turning out of the road, even when going at full speed, to pick up whatever they espy. When at the huts they are constantly creeping in to pilfer what they can, and half the time of the people

sitting there is occupied in vociferating their names, and driving them by most unmerciful blows out of the apartments. The dogs have no water to drink during the winter, but lick up some clean snow occasionally as a substitute; nor, indeed, if water be offered them, do they care about it, unless it happens to be oily. They take great pleasure in rolling in clean snow, especially after or during a journey, or when they have been confined in a house during the night. Notwithstanding the rough treatment which they receive from their masters, their attachment to them is very great, and this they display after a short absence by jumping up and licking their faces all over with extreme delight. The Esquimaux, however, never caress them, and, indeed, scarcely ever take any notice of them but when they offend, and they are not then sparing in their blows. The dogs have all names, to which they attend with readiness, whether drawing in a sledge or otherwise. Their names are frequently the same as those of the people, and in some instances are given after the relations of their masters, which seems to be considered an act of kindness among them. Upon the whole, notwithstanding the services performed by these valuable creatures, I am of opinion that art cannot well have done less towards making them useful, and that the same means in almost any other hands would be employed to greater advantage.

In the disposition of these people, there was, of course, among so many individuals, considerable variety as to the minute points; but in the general features of their character, which with them are not subject to the changes produced by foreign intercourse, one description will nearly apply to all.

The virtue which, as respected ourselves, we could most have wished them to possess, is honesty; and the impression derived from the early part of our intercourse was certainly in this respect a favourable one. A great many instances occurred, some of which have been related where they appeared even scrupulous in returning articles that did not belong to them; and this, too, when detection of a theft, or, at least, of the offender, would have been next to impossible. As they grew more familiar with us, and the temptations became stronger, they gradually relaxed in their honesty, and petty thefts were from time to time committed by several individuals, both male and female, among them.

The bustle which any search for stolen goods occasioned at the huts was sufficient proof of their understanding the estimation in which the crime was held by us. Until the affair was cleared up, they would affect great readiness to show every article which they had got from the ships, repeating the name of the donor with great warmth, as if offended at our suspicions, yet with a half smile on their countenance at our supposed credulity in believing them. There was, indeed, at all times, some, trick, and cunning in this show of openness and candour; and they would at times bring back some very trifling article that had been given them, tendering it as a sort of expiation for the theft of another much more valuable. When a search was making, they would invent all sorts of lies to screen themselves, not caring on whom besides the imputation fell; and more than once they directed our people to the apartments of others who were innocent of the event in question. If they really knew the offender, they were generally ready enough to inform against him, and this with an air of affected secrecy and mysterious importance; and, as if the dishonesty of another constituted a virtue in themselves, they would repeat this information frequently, perhaps for a month afterward, setting up their neighbour's offence as a foil to their own pretended honesty.

In appreciating the character of these people for honesty, however, we must not fail to make allowance for the degree of temptation to which they were daily exposed, amid the boundless stores of wealth which our ships appeared to them to furnish. To draw a parallel case, we must suppose an European of the lower class suffered to roam about amid hoards of gold and silver; for nothing less valuable can be justly compared with the wood and iron that everywhere presented themselves to their view on board the ships. The European and the Esquimaux, who, in cases so similar, both resist the temptation to stealing, must be considered pretty nearly on a par in the scale of honesty; and, judging in this manner, the balance might possibly be found in favour of the latter, when compared with any similar number of Europeans taken at random from the lower class.

In what has been hitherto said, regard has been had only to their dealings with *us*. In their transactions among themselves, there is no doubt that, except in one or two privileged cases, such as that of destitute widows, the strictest honesty prevails, and that, as regards the good of their own community, they are generally honest people. We have, in numberless instances, sent presents by one to another, and invariably found that they had been faithfully delivered. The manner in which their various implements are frequently left outside their huts is a proof, indeed, that robbery is scarcely known among them.

In the barter of their various commodities, their dealings with us were fair and upright, though latterly they were by no means backward nor inexpert in driving a bargain. The absurd and childish exchanges which they at first made with our people induced them subsequently to complain that the Kabloonas had stolen their things, though the profit had eventually been a hundred-fold in their favour. Many such complaints were made, when the only fault in the purchaser had been excessive liberality, and frequently, also, as a retort, by way of warding off the imputation of some dishonesty of their own. A trick not uncommon with the women was to endeavour to excite the commiseration, and to tax the bounty of one person, by relating some cruel theft of this kind that had, as they said, been practised upon them by another. One day, after I had bought a knife of Togolat, she told Captain Lyon, in a most piteous tone, that *Parree* had stolen her last *ooloo*, that she did not know what to do without one, and at length, coming to the point, begged him to give her one. Presently after this, her husband coming in and asking for

something to eat, she handed him some meat, accompanied by a very fine ooloo. Her son, being thus reminded of eating, made the same request, upon which a second knife was produced, and immediately after a third of the same kind for herself. Captain Lyon, having amused himself in watching these proceedings, which so well confirmed the truth of the proverb, that certain people ought to have good memories, now took the knives, one by one, out of their hands, and, holding them up to Togolat, asked her if Parree had not stolen her last ooloo. A hearty laugh all round was the only notice taken by them of this direct detection of the deceit.

The confidence which they really placed in us was daily and hourly evinced by their leaving their fishing gear stuck in the snow all round the ships; and not a single instance occurred, to my knowledge, of any theft committed on their property. The licking of the articles received from us was not so common with them as with Esquimaux in general, and this practice was latterly almost entirely left off by them.

Among the unfavourable traits in their character must be reckoned an extreme disposition to envy, which displayed itself on various occasions during our intercourse with them. If we had made any presents in one hut, the inmates of the next would not fail to tell us of it, accompanying their remarks with some satirical observations, too unequivocally expressed to be mistaken, and generally by some stroke of irony directed against the favoured person. If any individual with whom we had been intimate happened to be implicated in a theft, the circumstance became a subject of satisfaction too manifest to be repressed, and we were told of it with expressions of the most triumphant exultation on every occasion. It was, indeed, curious, though ridiculous, to observe that, even among these simple people, and even in this obscure corner of the globe, that little gossip and scandal so commonly practised in small societies among us were very frequently displayed. This was especially the case with the women, of whom it was not uncommon to see a group sitting in a hut for hours together, each relating her *quota* of information, now and then mimicking the persons of whom they spoke, and interlarding their stories with jokes evidently at the expense of their absent neighbours, though to their own infinite amusement.

I have already, in the course of the foregoing narrative, hinted at the want of gratitude evinced by these people in their transactions with us. Some exceptions, for they were only exceptions, and rare ones, to this rule, have been mentioned as they occurred; but in general, however considerable the benefit conferred, it was forgotten in a day; and this forgetfulness was not unfrequently aggravated by their giving out that their benefactor had been so shabby as to make them no present at all. Even those individuals who, either from good behaviour or superior intelligence, had been most noticed by us, and particularly such as had slept on board the ships, and whether in health or sickness had received the most friendly treatment from everybody, were in general just as indifferent as the rest; and I do not believe that any one among them would have gone half a mile out of his road, or have sacrificed the most trivial self-gratification to serve us. Okotook and Iligliuk, whom I had most loaded with presents, and who had never offered me a single free gift in return, put into my hand, at the time of their first removal from Winter Island, a dirty, crooked model of a spear, so shabbily constructed that it had probably been already refused as an article of barter by many of the ship's company. On my accepting this, from an unwillingness to affront them, they were uneasy and dissatisfied till I had given them something in return, though their hands were full of the presents which I had just made them. Selfishness is, in fact, almost without exception, their universal characteristic, and the mainspring of all their actions, and that, too, of a kind the most direct and unamiable that can well be imagined.

In the few opportunities we had of putting their hospitality to the test, we had every reason to be pleased with them. Both as to food and accommodation, the best they had were always at our service; and their attention, both in kind and degree, was everything that hospitality and even good-breeding could dictate. The kindly offices of drying and mending our clothes, cooking our provision, and thawing snow for our drink, were performed by the women with an obliging cheerfulness which we shall not easily forget, and which commanded its due share of our admiration and esteem. While thus their guest, I have passed an evening not only with comfort, but with extreme gratification; for, with the women working and singing, their husbands quietly mending their lines, the children playing before the door, and the pot boiling over the blaze of a cheerful lamp, one might well forget for the time that an Esquimaux hut was the scene of this domestic comfort and tranquillity; and I can safely affirm with Cartwright,[011] that, while thus lodged beneath their roof, I know no people whom I would more confidently trust, as respects either my person or my property, than the Esquimaux.

The estimation in which women are held among these people is, I think, somewhat greater than is usual in savage life. In their general employments they are by no means the drudges that the wives of the Greenlander's are said to be; being occupied only in those cares which may properly be called domestic, and, as such, are considered the peculiar business of the women among the lower classes in civilized society. The wife of one of these people, for instance, makes and attends the fire, cooks the victuals, looks after the children, and is sempstress to her whole family; while her husband is labouring abroad for their subsistence. In this respect it is not even necessary to except their task Of cutting up the small seals, which is, in truth, one of the greatest luxuries and privileges they enjoy; and, even if it were esteemed a labour, it could scarcely be considered equivalent to that of the women in many of our own fishing-towns, where the men's business is at an end the moment the boat touches the beach. The most laborious of their tasks occur, perhaps, in making their various journeys, when all their goods and chattels are to be removed at once, and when each individual must undoubtedly perform a full share of the general labour. The women are, however, good walkers and not easily fatigued; for we have several times known a

young woman of two-and-twenty, with a child in her hood, walk twelve miles to the ships and back again the same day, for the sake of a little bread-dust and a tin canister. When stationary in the winter, they have really almost a sinecure of it, sitting quietly in their huts, and having little or no employment for the greater part of the day. In short, there are few, if any people, in this state of society among whom the women are so well off. They always sit upon the beds with their legs doubled under them, and are uneasy in the posture usual with us. The men sometimes sit as we do, but more generally with their legs crossed before them.

The women do not appear to be, in general, very prolific. Illumea indeed had borne seven children, but no second instance of an equal number in one family afterward came to our knowledge; three or four is about the usual number. They are, according to their own account, in the habit of suckling their children to the age of three years; but we have seen a child of five occasionally at the breast, though they are dismissed from the mother's hood at about the former age. It is not uncommon to see one woman suckling the child of another, while the latter happens to be employed in her other domestic occupations. They are in the habit, also, of feeding their younger children from their own mouths, softening the food by mastication, and then turning their heads round so that the infant in the hood may put its lips to theirs. The chill is taken from water for them in the same manner, and some fathers are very fond of taking their children on their knees and thus feeding them. The women are more desirous of having sons than daughters, as on the former must principally depend their support in old age.

Twelve of the men had each two wives, and some of the younger ones had also two betrothed; two instances occurred of the father and son being married to sisters. The custom of betrothing children in their infancy is commonly practised here, in which respect these people differ from the natives of Greenland, where it is comparatively rare. A daughter of Arnaneelia, between two and three years old, had long been thus contracted to Okotook's son, a hero of six or seven, and the latter used to run about the hut calling his intended by the familiar appellation of *N~o~oll=e-~a* (wife), to the great amusement of the parents. When a man has two wives there is generally a difference of five or six years in their ages. The senior takes her station next the principal fire, which comes entirely under her management; and she is certainly considered in some respects superior to the other, though they usually live together in the utmost harmony. The men sometimes repudiate their wives without ceremony, in case of real or supposed bad behaviour as in Greenland, but this does not often occur. There was a considerable disparity of age between many of the men and their wives, the husband being sometimes the oldest by twenty years or more, and this also when he had never married any former wife. We knew no instance in which the number of a man's wives exceeded two, and, indeed, we had every reason to believe that the practice is never admitted among them. We met with a singular instance of two men having exchanged wives, in consequence merely of one of the latter being pregnant at the time when her husband was about to undertake a long journey.

The authority of the husband seems to be sufficiently absolute, depending, nevertheless, in great measure on the dispositions of the respective parties. Iligliuk was one of those women who seem formed to manage their husbands; and we one day saw her take Okotook to task in a very masterly style, for having bartered away a good jacket for an old useless pistol, without powder or shot. He attempted at first to bluster in his turn, and with most women would probably have gained his point. But with Iligliuk this would not do; she saw at once the absurdity of his bargain, and insisted on his immediately cancelling it, which was accordingly done, and no more said about it. In general, indeed, the husband maintains his authority, and in several instances of supposed bad behaviour in a wife, we saw obedience enforced in a very summary manner. It is very rare, however, to see them proceed to this extremity; and the utmost extent of a husband's want of tenderness towards his wife consists in making her walk or lead the dogs, while he takes his own seat in the sledge and rides in comfort. Widows, as might be expected, are not so well off as those whose husbands are living, and this difference is especially apparent in their clothes, which are usually very dirty, thin, and ragged; when, indeed, they happen to have no near relatives, their fate, as we have already seen, is still worse than this.

I fear we cannot give a very favourable account of the chastity of the women, nor of the delicacy of their husbands in this respect. As for the latter, it was not uncommon for them to offer their wives as freely for sale as a knife or a jacket. Some of the young men informed us that, when two of them were absent together on a sealing excursion, they often exchanged wives for the time, as a matter of friendly convenience; and, indeed, without mentioning any other instances of this nature, it may safely be affirmed, that in no country is prostitution carried to greater lengths than among these people. The behaviour of most of the women when their husbands were absent from the huts, plainly evinced their indifference towards them, and their utter disregard of connubial fidelity. The departure of the men was usually the signal for throwing aside restraint, which was invariably resumed on their return. For this event they take care to be prepared by the report of the children, one of whom is usually posted on the outside for the purpose of giving due notice.

The affection of parents for their children was frequently displayed by these people, not only in the mere passive indulgence, and abstinence from corporeal punishment, for which Esquimaux have before been remarked, but by a thousand playful endearments also, such as parents and nurses practise in our own country. Nothing, indeed, can well exceed the kindness with which they treat their children, and this trait in their character deserves to be the more insisted on, because it is, in reality, the only very amiable one which they possess. It must be confessed, indeed, that the gentleness and docility of the children are such as to occasion their parents little trouble, and to render severity towards them quite unnecessary. Even from their earliest infancy

they possess that quiet disposition, gentleness of demeanour, and uncommon evenness of temper, for which, in more mature age, they are for the most part distinguished. Disobedience is scarcely ever known; a word or even a look from a parent is enough; and I never saw a single instance of that frowardness and disposition to mischief which, with our youth, so often requires the whole attention of a parent to watch over and to correct. They never cry from trifling accidents, and sometimes not even from very severe hurts, at which an English child would sob for an hour. It is, indeed, astonishing to see the indifference with which, even as tender infants, they bear the numerous blows they accidentally receive, when carried at their mothers' backs.

They are just as fond of play as any other young people, and of the same kind; only that while an English child draws a cart of wood, an Esquimaux of the same age has a sledge of whalebone; and for the superb baby-house of the former, the latter builds a miniature hut of snow, and begs a lighted wick from her mother's lamp to illuminate the little dwelling. Their parents make for them, as dolls, little figures of men and women, habited in the true Esquimaux costume, as well as a variety of other toys, many of them having some reference to their future occupations in life, such as canoes, spears, and bows and arrows. The drum or tambarine, mentioned by Crantz, is common among them, and used not only by the children, but by the grown-up people at some of their games. They sometimes serrate the edges of two strips of whalebone and whirl them round their heads, just as boys do in England to make the same peculiar humming sound. They will dispose one piece of wood on another, as an axis, in such a manner that the wind turns it round like the arms of a windmill; and so of many other toys of the same simple kind. These are the distinct property of the children, who will sometimes sell them, while their parents look on without interfering or expecting to be consulted.

When not more than eight years old, the boys are taken by their fathers on their sealing excursions, where they begin to learn their future business; and even at that early age they are occasionally intrusted to bring home a sledge and dogs from a distance of several miles over the ice. At the age of eleven we see a boy with his water-tight boots and moccasins, a spear in his hand, and a small coil of line at his back, accompanying the men to the fishery, under every circumstance; and from this time his services daily increase in value to the whole tribe. On our first intercourse with them we supposed that they would not unwillingly part with their children, in consideration of some valuable present, but in this we afterward found that we were much mistaken. Happening one day to call myself Toolooak's *attata* (father), and pretend that he was to remain with me on board the ship, I received from the old man, his father, no other answer than what seemed to be very strongly and even satirically implied, by his taking one of our gentlemen by the arm and calling him *his* son; thus intimating that the adoption which he proposed was as feasible and as natural as my own.

The custom of adoption is carried to very great lengths among these people, and served to explain to us several apparent inconsistencies with respect to their relationships. The custom owes its origin entirely to the obvious advantage of thus providing for a man's own subsistence in advanced life; and it is consequently confined almost without exception to the adoption of *sons*, who can alone contribute materially to the support of an aged and infirm parent. When a man adopts the son of another as his own, he is said to "*tego*," or take him; and at whatever age this is done (though it generally happens in infancy), the child then lives with his new parents, calls them father and mother, is sometimes even ignorant of any such transfer having been made, especially if his real parents should be dead; and whether he knows it or not, is not always willing to acknowledge any but those with whom he lives. The agreement seems to be always made between the fathers, and to differ in no respect from the transfer of other property, except that none can equal in value the property thus disposed of. The good sense, good fortune, or extensive claims of some individuals were particularly apparent in this way, from the number of sons they had adopted. Toolemak, deriving, perhaps, some advantage from his qualifications as Angetkook, had taken care to negotiate for the adoption of some of the finest male children of the tribe; a provision which now appeared the more necessary, from his having lost four children of his own, besides Noogloo, who was one of his *tego'd* sons. In one of the two instances that came to our knowledge of the adoption of a female child, both its own parents were still living, nor could we ascertain the motive for this deviation from the more general custom.

In their behaviour to old people, whose age or infirmities render them useless, and, therefore, burdensome to the community, the Esquimaux betray a degree of insensibility bordering on inhumanity, and ill repaying the kindness of an indulgent parent. The old man Hikkeiera, who was very ill during the winter, used to lie day after day, little regarded by his wife, son, daughter, and other relatives, except that his wretched state constituted, as they well knew, a forcible claim upon our charity; and, with this view, it was sure to excite a whine of sympathy and commiseration whenever we visited or spoke of him. When, however, a journey of ten miles was to be performed over the ice, they left him to find his way with a stick in the best manner he could, while the young and robust ones were many of them drawn on sledges. There is, indeed, no doubt that, had their necessities or mode of life required a longer journey than he could thus have accomplished, they would have pushed on like the Indians, and left a fellow-creature to perish. It was certainly considered incumbent on his son to support him, and he was fortunate in that son's being a very good man; but a few more such journeys to a man of seventy would not impose this encumbrance upon him much longer. Illumea, the mother of several grown-up children, lived also in the same hut with her other relations. She did not, however, interfere, as in Greenland, with the management of her son's domestic concerns, though his wife was half an idiot. She was always badly clothed, and, even in the midst of plenty, not particularly well-fed, receiving everything more as an act of charity than otherwise; and she will probably be less and

less attended to, in proportion as she stands more in need of assistance.

The different families appear always to live on good terms with each other, though each preserves its own habitation and property as distinct and independent as any housekeeper in England. The persons living under one roof, who are generally closely related, maintain a degree of harmony among themselves which is scarcely ever disturbed. The more turbulent passions which, when unrestrained by religious principle, or unchecked by the dread of human punishment, usually create so much havoc in the world, seem to be very seldom excited in the breasts of these people, which renders personal violence or immoderate anger extremely rare among them; and one may sit in a hut for a whole day, and never observe an angry word or look, except in driving out the dogs. If they take an offence, it is more common for them to show it by the more quiet method of sulkiness, and this they now and then tried as a matter of experiment with us. Okotook, who was often in this humour, once displayed it to some of our gentlemen in his own hut, by turning his back and frequently repeating the expression "good-by," as a broad hint to them to go away. Toolooak was also a little given to this mood, but never retained it long, and there was no malice mixed with his displeasure. One evening that he slept on board the Fury, he either offended Mr. Skeoch, or thought that he had done so, by this kind of humour; at all events, they parted for the night without any formal reconciliation. The next morning Mr. Skeoch was awakened at an unusually early hour, by Toolooak's entering his cabin and taking hold of his hand to shake it, by way of making up the supposed quarrel. On a disposition thus naturally charitable, what might not Christian education and Christian principles effect? Where a joke is evidently intended, I never knew people more ready to join in it than these are. If ridiculed for any particularity of manner, figure, or countenance, they are sure not to be long behind-hand in returning it, and that very often with interest. If we were the aggressors in this way, some ironical observation respecting the *Kabloonas* was frequently the consequence; and no small portion of wit as well as irony was at times mixed with their raillery.

In point of intellect as well as disposition, great variety was, of course, perceptible among the different individuals of this tribe; but few of them were wanting in that respect. Some, indeed, possessed a degree of natural quickness and intelligence which, perhaps, could hardly be surpassed in the natives of any country. Iligliuk, though one of the least amiable, was particularly thus gifted. When she really wished to develop our meaning, she would desire her husband and all the rest to hold their tongues, and would generally make it out while they were puzzling their heads to no purpose. In returning her answers, the very expression of her countenance, though one of the plainest among them, was almost of itself sufficient to convey her meaning; and there was, in these cases, a peculiarly decisive energy in her manner of speaking which was extremely interesting. This woman would, indeed, have easily learned anything to which she chose to direct her attention; and had her lot been cast in a civilized country instead of this dreary region, which serves alike to "freeze the genial current of the soul" and body, she would probably have been a very clever person. For want of a sufficient object, however, neither she nor any of her companions ever learned a dozen words of English, except our names, with which it was their interest to be familiar, and which, long before we left them, any child could repeat, though in their own style of pronunciation.

Besides the natural authority of parents and husbands, these people appear to admit no kind of superiority among one another, except a certain degree of superstitious reverence for their *angetkooks*, and their tacitly following the counsel or steps of the most active seal-catcher on their hunting excursions. The word *nallegak*, used in Greenland to express "master," and "lord" in the Esquimaux translations of the Scriptures, they were not acquainted with. One of the young men at Winter Island appeared to be considered somewhat in the light of a servant to Okotook, living with the latter, and quietly allowing him to take possession of all the most valuable presents which he received from us. Being a sociable people, they unite in considerable numbers to form a settlement for the winter; but on the return of spring they again separate into several parties, each appearing to choose his own route, without regard to that of the rest, but all making their arrangements without the slightest disagreement or difference of opinion that we could ever discover. In all their movements, they seem to be actuated by one simultaneous feeling that is truly admirable.

Superior as our arts, contrivances, and materials must unquestionably have appeared to them, and eager as they were to profit by this superiority, yet, contradictory as it may seem, they certainly looked upon us in many respects with profound contempt; maintaining that idea of self-sufficiency which has induced them, in common with the rest of their nation, to call themselves, by way of distinction, Innue, or mankind. One day, for instance, in securing some of the gear of a sledge, Okotook broke a part of it, composed of a piece of our white line, and I shall never forget the contemptuous sneer with which he muttered in soliloquy the word "Kabloona!" in token of the inferiority of our materials to his own. It is happy, perhaps, when people, possessing so few of the good things of this life, can be thus contented with the little allotted them.

The men, though low in stature, are not wanting in muscular strength in proportion to their size, or in activity and hardiness. They are good and even quick walkers, and occasionally bear much bodily fatigue, wet, and cold, without appearing to suffer by it, much less to complain of it. Whatever labour they have gone through, and with whatever success in procuring game, no individual ever seems to arrogate to himself the credit of having done more than his neighbour for the general good. Nor do I conceive there is reason to doubt their personal courage, though they are too good-natured often to excite others to put that quality to the test. It is true, they will recoil with horror at the tale of an Indian massacre, and probably cannot conceive what should

induce one set of men deliberately and without provocation to murder another. War is not their trade; ferocity forms no part of the disposition of the Esquimaux. Whatever manly qualities they possess are exercised in a different way, and put to a far more worthy purpose. They are fishermen, and not warriors; but I cannot call that man a coward who, at the age of one-and-twenty, will attack a polar bear single-handed, or fearlessly commit himself to floating masses of ice, which the next puff of wind may drift for ever from the shore.

Of the few arts possessed by this simple people, some account has already been given in the description of their various implements. As mechanics, they have little to boast when compared with other savages lying under equal disadvantages as to scantiness of tools and materials. As carpenters, they can scarf two pieces of wood together, secure them with pins of whalebone or ivory, fashion the timbers of a canoe, shoe a paddle, and rivet a scrap of iron into a spear or arrow-head. Their principal tool is the knife (panna); and, considering the excellence of a great number which they possessed previous to our intercourse with them, the work they do is remarkably coarse and clumsy. Their very manner of holding and handling a knife is the most awkward that can be imagined. For the purpose of boring holes, they have a drill and bow so exactly like our own, that they need no farther description, except that the end of the drill handle, which our artists place against their breasts, is rested by these people against a piece of wood or bone held in their mouths, and having a cavity fitted to receive it. With the use of the saw they were well acquainted, but had nothing of this kind in their possession better than a notched piece of iron. One or two small European axes were lashed to handles in a contrary direction to ours, that is, to be used like an adze, a form which, according to the observation of a traveller[012] well qualified to judge, savages in general prefer. It was said that these people steamed or boiled wood, in order to bend it for fashioning the timbers of their canoes. As fishermen or seamen, they can put on a woolding or seizing with sufficient strength and security, and are acquainted with some of the most simple and serviceable knots in use among us. In all the arts, however, practised by the men, it is observable that the ingenuity lies in the principle, not in the execution. The experience of ages has led them to adopt the most efficacious methods, but their practice as handicrafts has gone no farther than absolute necessity requires; they bestow little labour upon neatness or ornament.

In some of the few arts practised by the women there is much more dexterity displayed, particularly in that important branch of a housewife's business, sewing, which, even with their own clumsy needles of bone, they perform with extraordinary neatness. They had, however, several steel needles of a three-cornered shape, which they kept in a very convenient case, consisting of a strip of leather passed through a hollow bone, and having its ends remaining out, so that the needles which are stuck into it may be drawn in and out at pleasure. These cases were sometimes ornamented by cutting; and several thimbles of leather, one of which, in sewing, is worn on the first finger, are usually attached to it, together with a bunch of narrow spoons and other small articles liable to be lost. The thread they use is the sinew of the reindeer (*tooktoo =ew=all~o~o*), or, when they cannot procure this, the swallow-pipe of the *neiliek*. This may be split into threads of different sizes, according to the nature of their work, and is certainly a most admirable material. This, together with any other articles of a similar kind, they keep in little bags, which are sometimes made of the skin of birds' feet, disposed with the claws downward in a very neat and tasteful manner. In sewing, the point of the needle is entered and drawn through in a direction towards the body, and not from it or towards one side, as with our seamstresses. They sew the deerskins with a "round seam," and the water-tight boots and shoes are "stitched." The latter is performed in a very adroit and efficacious manner, by putting the needle only half through the substance of one part of the sealskin, so as to leave no hole for admitting the water. In cutting out the clothes, the women do it after one regular and uniform pattern, which probably descends unaltered from generation to generation. The skin of the deer's head is always made to form the *apex* of the hood, while that of the neck and shoulders comes down the back of the jacket; and so of every other part of the animal which is appropriated to its particular portion of the dress. To soften the sealskins of which the boots, shoes, and mittens are made, the women chew them for an hour or two together and the young girls are often seen employed in thus preparing the materials for their mothers. The covering of the canoes is a part of the women's business, in which good workmanship is especially necessary to render the whole smooth and water-tight. The skins, which are those of the *neitiek* only, are prepared by scraping off the hair and the fleshy parts with an *ooloo,* and stretching them out tight on a frame, in which state they are left over the lamps or in the sun for several days to dry; and after this they are well chewed by the women to make them fit for working. The dressing of leather and of skins in the hair, is an art which the women have brought to no inconsiderable degree of perfection. They perform this by first cleansing the skin from as much of the fat and fleshy matter as the *ooloo* will take off, and then rubbing it hard for several hours with a blunt scraper, called *si=ak~o~ot,* so as nearly to dry it. It is then put into a vessel containing urine, and left to steep a couple of days, after which a drying completes the process. Skins dressed in the hair are, however, not always thus steeped; the women, instead of this, chewing them for hours together till they are quite soft and clean. Some of the leather thus dressed looked nearly as well as ours, and the hair was as firmly fixed to the pelt; but there was in this respect a very great difference, according to the art or attention of the housewife. Dyeing is an art wholly unknown to them. The women are very expert at platting, which is usually done with three threads of sinew; if greater strength is required, several of these are twisted slackly together, as in the bowstrings. The quickness with which some of the women plat is really surprising; and it is well that they do so, for the quantity required for the bows alone would otherwise occupy half the year in completing it.

It may be supposed that, among so cheerful a people as the Esquimaux, there are many games or sports practised; indeed, it was rarely that we visited their habitations without seeing some engaged in them. One of these our gentlemen saw at Winter Island, on an occasion when most of the men were absent from the huts on a sealing excursion, and in this Iligliuk was the chief performer. Being requested to amuse them in this way, she suddenly unbound her hair, platted it, tied both ends together to keep it out of her way, and then stepping out into the middle of the hut, began to make the most hideous faces that can be conceived, by drawing both lips into her mouth, poking forward her chin, squinting frightfully, occasionally shutting one eye, and moving her head from side to side as if her neck had been dislocated. This exhibition, which they call *=ay=ok~it-t=ak-poke*, and which is evidently considered an accomplishment that few of them possess in perfection, distorts every feature in the most horrible manner imaginable, and would, I think, put our most skilful horse-collar grinners quite out of countenance.

The next performance consists in looking steadfastly and gravely forward, and repeating the words *t~ab=ak-tabak, k~eib=o-keibo, k~e-b=ang-~e-n=u-t~o-~e~ek, kebang-enutoeek, ~am=at~am=a-amatama*, in the order in which they are here placed, but each at least four times, and always by a peculiar modulation of the voice, speaking them in pairs as they are coupled above. The sound is made to proceed from the throat in a way much resembling ventriloquism, to which art it is indeed an approach. After the last *amatama* Iligliuk always pointed with her finger towards her body, and pronounced the word *angetkook,* steadily retaining her gravity for five or six seconds, and then bursting into a loud laugh, in which she was joined by all the rest. The women sometimes produce a much more guttural and unnatural sound, repeating principally the word *=ikk~er~ee-ikkeree*, coupling them as before, and staring in such a manner as to make their eyes appear ready to burst out of their sockets with the exertion. Two or more of them will sometimes stand up face to face, and with great quickness and regularity respond to each other, keeping such exact time that the sound appears to come from one throat instead of several. Very few of the females are possessed of this accomplishment, which is called *pitkoo-she-r=ak-poke*, and it is not uncommon to see several of the younger females practising it. A third part of the game, distinguished by the word *keit=ik-poke*, consists only in falling on each knee alternately—a piece of agility which they perform with tolerable quickness, considering the bulky and awkward nature of their dress.

The last kind of individual exhibition was still performed by Iligliuk, to whom in this, as in almost everything else, the other women tacitly acknowledged their inferiority, by quietly giving place to her on every occasion. She now once more came forward, and letting her arms hang down loosely and bending her body very much forward, shook herself with, extreme violence, as if her whole frame had been strongly convulsed, uttering at the same time, in a wild tone of voice, some of the unnatural sounds before mentioned.

This being at an end, a new exhibition was commenced, in which ten or twelve women took a part, and which our gentlemen compared to blind-man's buff. A circle being formed, and a boy despatched to look out at the door of the hut, Iligliuk, still the principal actress, placed herself in the centre, and after making a variety of guttural noises for about half a minute, shut her eyes and ran about till she had taken hold of one of the others, whose business it then became to take her station in the centre, so that almost every woman in her turn occupied this post; and in her own peculiar way, either by distortion of countenance or other gestures, performed her part in the game. This continued three quarters of an hour; and, from the precaution of placing a look-out, who was withdrawn when it was over, as well as from some very expressive signs which need not here be mentioned, there is reason to believe that it is usually followed by certain indecencies, with which their husbands are not to be acquainted. Kaoongut was present, indeed, on this occasion, but his age seemed to render him a privileged person; besides which, his own wife did not join in the game.

The most common amusement, however, and to which their husbands made no objection, they performed at Winter Island expressly for our gratification. The females being collected to the number of ten or twelve, stood in as large a circle as the hut would admit, with Okotook in the centre. He began by a sort of half howling, half singing noise, which appeared as if designed to call the attention of the women, the latter soon commencing the *Amna Aya* song hereafter described. This they continued without variety, remaining quite still while Okotook walked round within the circle; his body was rather bent forward, his eyes sometimes closed, his arms constantly moving up and down, and now and then hoarsely vociferating a word or two, as if to increase the animation of the singers, who, whenever he did this, quitted the chorus and rose into the words of the song. At the end of ten minutes they all left off at once, and after one minute's interval commenced a second act precisely similar and of equal duration; Okotook continuing to invoke their muse as before. A third act, which followed this, varied only in his frequently, towards the close, throwing his feet up before and clapping his hands together, by which exertion he was thrown into a violent perspiration. He then retired, desiring a young man (who, as we were informed, was the only individual of several then present thus qualified) to take his place in the centre as master of the ceremonies, when the same antics as before were again gone through. After this description it will scarcely be necessary to remark, that nothing can be poorer in its way than this tedious singing recreation, which, as well as everything in which dancing is concerned, they express by the word m~om=ek-poke. They seem, however, to take great delight in it; and even a number of men, as well as all the children, crept into the hut by degrees to peep at the performance.

The Esquimaux women and children often amuse themselves with a game not unlike our "skip-

rope." This is performed by two women holding the ends of a line, and whirling it regularly round and round, while a third jumps over it in the middle, according to the following order. She commences by jumping twice on both feet, then alternately with the right and left, and next four times with the feet slipped one behind the other, the rope passing once round at each jump. After this she performs a circle on the ground, jumping about half a dozen times in the course of it, which bringing her to her original position, the same thing is repeated as often as it can be done without entangling the line. One or two of the women performed this with considerable agility and adroitness, considering the clumsiness of their boots and jackets, and seemed to pride themselves, in some degree, on the qualification. A second kind of this game consists in two women holding a long rope by its ends, and whirling it round in such a manner, over the heads of two others standing close together near the middle of the bight, that each of these shall jump over it alternately. The art, therefore, which is indeed considerable, depends more on those whirling the rope than on the jumpers, who are, however, obliged to keep exact time, in order to be ready for the rope passing under their feet.

The whole of these people, but especially the women, are fond of music, both vocal and instrumental. Some of them might be said to be passionately so, removing their hair from off their ears, and bending their heads forward, as if to catch the sounds more distinctly, whenever we amused them in this manner. Their own music is entirely vocal, unless, indeed, the drum and tambarine before mentioned be considered an exception.

The voices of the women are soft and feminine, and, when singing with the men, are pitched an octave higher than theirs. They have most of them so far good ears, that, in whatever key a song is commenced by one of them, the rest will always join in perfect unison. After singing for ten minutes, the key had usually fallen a full semitone. Only two of them, of whom Iligliuk was one, could catch the tune as pitched by an instrument, which made it difficult with most of them to complete the writing of the notes; for if they once left off they were sure to recommence in some other key, though a flute or violin was playing at the time.

During the season passed at Winter Island, which appears to have been a healthy one with the Esquimaux, we had little opportunity of becoming acquainted with the diseases to which they are subject. Our subsequent intercourse with a great number of these people at Igloolik having unfortunately afforded more frequent and fatal instances of sickness among them, I here insert Mr. Edwards's remarks on this subject.

> "Our first communication with these people at Winter Island gave us a more favourable impression of their general health than subsequent experience confirmed. There, however, they were not free from sickness. A catarrhal affection, in the month of February, became generally prevalent, from which they readily recovered after the exciting causes, intemperance and exposure to wet, had ceased to operate. A solitary instance of pleurisy also occurred, which probably might have ended fatally but for timely assistance. Our intercourse with them in the summer was more interrupted; but at our occasional meetings they were observed to be enjoying excellent health. It is probable that their certain supplies of food, and the nomade kind of life they lead in its pursuit during that season, are favourable to health. Nutrition goes on actively, and an astonishing increase of strength and fulness is acquired. Active diseases might now be looked for, but that the powers of nature are providentially exerted with effect.
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> "The unlimited use of stimulating animal food, on which they are from infancy fed, induces at an early age a highly plethoric state of the vascular system. The weaker, over-distended vessels of the nose quickly yield to the increased impetus of the blood, and an active hemorrhage relieves the subject. As the same causes continue to be applied in excess at frequent intervals, and are followed by similar effects, a kind of vicarious hemorrhage at length becomes established by habit; superseding the intervention of art, and having no small share in maintaining a balance in the circulating system. The phenomenon is too constant to have escaped the observation of those who have visited the different Esquimaux people; a party of them has, indeed, rarely been seen, that did not exhibit two or three instances of the fact.
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> "About the month of September, the approach of winter induced the Esquimaux at Igloolik to abandon their tents and to retire into their more established village. The majority were here crowded into huts of a permanent construction, the materials composing the sides being stones and the bones of whales, and the roofs being formed of skins, turf, and snow; the rest of the people were lodged in snow huts. For a while they continued very healthy; in fact, as long as the temperature of the interior did not exceed the freezing point, the vapours of the atmosphere congealed upon the walls, and the air remained dry and tolerably pure; besides, their hard-frozen winter stock of walrus did not at this time tempt them to indulge their appetites immoderately. In January the temperature suffered an unseasonable rise; some successful captures of walrus also took place; and these circumstances, combined perhaps with some superstitious customs of which we were ignorant, seemed the signal for giving way to sensuality. The lamps were accumulated, and the kettles more frequently replenished; and gluttony, in its most disgusting form, became for a while the

order of the day. The Esquimaux were now seen wallowing in filth, while some, surfeited, lay stretched upon their skins, enormously distended, and with their friends employed in rolling them about, to assist the operations of oppressed nature. The roofs of their huts were no longer congealed, but dripping with wet and threatening speedy dissolution. The air was, in the bone huts, damp, hot, and beyond sufferance offensive with putrid exhalations from the decomposing relics of offals or other animal matter permitted to remain from year to year undisturbed in these horrible sinks.

"What the consequences might have been had this state of affairs long continued, it is not difficult to imagine; but, fortunately for them, an early and gradual dispersion took place, so that by the end of January few individuals were left in the village. The rest, in divided bodies, established themselves in snow huts upon the sea-ice at some distance from the land. Before this change had been completed, disorders of an inflammatory character had appeared. A few went away sick, some were unable to remove, and others taken ill upon the ice, and we heard of the death of several about this period.

"Their distance from the ships at once precluded any effectual assistance being rendered them at their huts, and their removal on board with safety; the complaints of those who died at the huts, therefore, did not come under observation. It appears, however, to have been acute inflammation of some of the abdominal viscera, very rapid in its career. In the generality, the disease assumed a more insidious and sub-acute form, under which the patient lingered for a while, and was then either carried off by a diarrhoea, or slowly recovered by the powers of nature. Three or four individuals, who, with some risk and trouble, were brought to the ships, we were providentially instrumental in recovering; but two others, almost helpless patients, were so far exhausted before their arrival, that the endeavours used were unsuccessful, and death was probably hastened by their removal.

"That affection of the eyes known by the name of snow-blindness, is extremely frequent among these people. With them it scarcely ever goes beyond painful irritation, while among strangers inflammation is sometimes the consequence. I have not seen them use any other remedy besides the exclusion of light; but, as a preventive, a wooden eye-screen is worn, very simple in its construction, consisting of a curved piece of wood, six or seven inches long, and ten or twelve lines broad. It is tied over the eyes like a pair of spectacles, being adapted to the forehead and nose, and hollowed out to favour the motion of the eyelids. A few rays of light only are admitted through a narrow slit an inch long, cut opposite to each eye.

"There are, upon the whole, no people more destitute of curative means than these. With the exception of the hemorrhage already mentioned, which they duly appreciate, and have been observed to excite artificially to cure headache, they are ignorant of any rational method of procuring relief. It has not been ascertained that they use a single herb medicinally. As prophylactics, they wear amulets, which are usually the teeth, bones, or hair of some animal, the more rare apparently the more valuable. In absolute sickness they depend entirely upon their Angekoks, who, they persuade themselves, have influence over some submarine deities who govern their destiny. The mummeries of these impostors, consisting in pretended consultations with their oracles, are looked upon with confidence, and their mandates, however absurd, superstitiously submitted to. These are constituted of unmeaning ceremonies and prohibitions generally affecting the diet, both in kind and mode, but never in quantity. Seal's flesh is forbidden, for instance, in one disease, that of the walrus in the other; the heart is denied to some, and the liver to others. A poor woman, on discovering that the meat she had in her mouth was a piece of fried heart instead of liver, appeared horror-struck; and a man was in equal tribulation at having eaten, by mistake, a piece of meat cooked in his wife's kettle.

"Personal deformity from malconformation is uncommon; the only instance I remember being that of a young woman, whose utterance was unintelligibly nasal, in consequence of an imperfect development of the palatine bones leaving a gap in the roof of the mouth."

Whatever may be the abundance sometimes enjoyed by these people, and whatever the maladies occasioned by their too frequent abuse of it, it is certain that they occasionally suffer very severely from the opposite extreme. A remarkably intelligent woman informed Captain Lyon, that two years ago some Esquimaux arrived at Igloolik from a place near *Akkoolee*, bringing information that, during a very grievous famine, one party of men had fallen upon another and killed them; and that they afterward subsisted on their flesh, while in a frozen state, but never cooked or even thawed it. This horrible account was soon after confirmed by Toolemak on board the Fury; and though he was evidently uneasy at our having heard the story, and conversed upon it with reluctance, yet, by means of our questions, he was brought to name, upon his fingers, five individuals who had been killed upon this occasion. Of the fact, therefore, there can be no doubt;

but it is certain, also, that we ourselves scarcely regarded it with greater horror than those who related it; and the occurrence may be considered similar to those dreadful instances on record, even among civilized nations, of men devouring one another, in wrecks or boats, when rendered desperate by the sufferings of actual starvation.

The ceremony of crying, which has before been mentioned as practised after a person's death, is not, however, altogether confined to those melancholy occasions, but is occasionally adopted in cases of illness, and that of no very dangerous kind. The father of a sick person enters the apartment, and, after looking at him a few seconds without speaking, announces by a kind of low sob his preparation for the coming ceremony. At this signal every other individual present composes his features for crying, and the leader of the chorus then setting up a loud and piteous howl, which lasts about a minute, is joined by all the rest, who shed abundant tears during the process. So decidedly is this a matter of form, unaccompanied by any feeling of sorrow, that those who are not relatives shed just as many tears as those that are; to which may be added, that in the instances which we saw there was no real occasion for crying at all. It must, therefore, be considered in the light of a ceremony of condolence, which it would be either indecorous or unlucky to omit.

I have already given several instances of the little care these people take in the interment of their dead, especially in the winter season; it is certain, however, that this arises from some superstitious notion, and particularly from the belief that any heavy weight upon the corpse would have an injurious effect upon the deceased in a future state of existence; for even in the summer, when it would be an easy matter to secure a body from the depredations of wild animals, the mode of burial is not essentially different. The corpse of a child observed by Lieutenant Palmer, he describes "as being laid in a regular but shallow grave, with its head to the northeast. It was decently dressed in a good deerskin jacket, and a sealskin prepared without the hair was carefully placed as a cover to the whole figure, and tucked in on all sides. The body was covered with flat pieces of limestone, which, however, were so light that a fox might easily have removed them. Near the grave were four little separate piles of stones, not more than a foot in height, in one of which we noticed a piece of red cloth and a black silk handkerchief, in a second a pair of child's boots and mittens, and in each of the others a whalebone pot. The face of the child looked unusually clean and fresh, and a few days could only have elapsed since its decease."

These Esquimaux do not appear to have any idea of the existence of One Supreme Being, nor indeed can they be said to entertain any notions on this subject which may be dignified with the name of Religion. Their superstitions, which are numerous, have all some reference to the preternatural agency of a number of *to=orng~ow* or spirits, with whom, on certain occasions, the *Angetkooks* pretend to hold mysterious intercourse, and who, in various and distinct ways, are supposed to preside over the destinies of the Esquimaux. On particular occasions of sickness or want of food, the Angetkooks contrive, by means of a darkened hut, a peculiar modulation of the voices and the uttering of a variety of unintelligible sounds, to persuade their countrymen that they are descending to the lower regions for this purpose, where they force the spirits to communicate the desired information. The superstitious reverence in which these wizards are held, and a considerable degree of ingenuity in their mode of performing their mummery, prevent the detection of the imposture, and secure implicit confidence in these absurd oracles. Some account of their ideas repecting death, and of their belief in a future state of existence, has already been introduced in the course of the foregoing pages, in the order of those occurrences which furnished us with opportunities of observing them.

NARRATIVE
OF
AN ATTEMPT TO REACH THE NORTH POLE,

IN BOATS FITTED FOR THE PURPOSE,
AND ATTACHED TO HIS MAJESTY'S SHIP HECLA,

IN THE YEAR 1827.

NARRATIVE

INTRODUCTION.

In April, 1826, I proposed to the Right Honourable Viscount Melville, first lord commissioner of the Admiralty, to attempt to reach the North Pole by means of travelling with sledge-boats over

the ice, or through any spaces of open water that might occur. My proposal was soon afterward referred to the president and council of the Royal Society, who strongly recommended its adoption; and an expedition being accordingly directed to be equipped for this purpose, I had the honour of being appointed to the command of it; and my commission for his majesty's ship the Hecla, which was intended to carry us to Spitzbergen, was dated the 11th of November, 1826.

Two boats were constructed at Woolwich, under my superintendence, after an excellent model suggested by Mr. Peake, and nearly resembling what are called "troop-boats," having great flatness of floor, with the extreme breadth carried well forward and aft, and possessing the utmost buoyancy, as well as capacity for stowage. Their length was twenty feet, and their extreme breadth seven feet. The timbers were made of tough ash and hickory, one inch by half an inch square, and a foot apart, with a "half-timber" of smaller size between each two. On the outside of the frame thus formed was laid a covering of Macintosh's water-proof canvass, the outer part being covered with tar. Over this was placed a plank of fir, only three sixteenths of an inch thick; then a sheet of stout felt; and, over all, an oak plank of the same thickness as the fir; the whole of these being firmly and closely secured to the timbers by iron screws applied from without. The following narrative will show how admirably the elasticity of this mode of construction was adapted to withstand the constant twisting and concussion to which the boats were subject.[013] On each side of the keel, and projecting considerably below it, was attached a strong "runner," shod with smooth steel, in the manner of a sledge, upon which the boat entirely rested while upon the ice; and, to afford some additional chance of making progress on hard and level fields, we also applied to each boat two wheels, of five feet diameter, and a small one abaft, having a swivel for steering by, like that of a Bath chair; but these, owing to the irregularities of the ice, did not prove of any service, and were subsequently relinquished. A "span" of hide-rope was attached to the forepart of the runners, and to this were affixed two strong ropes of horse-hair, for dragging the boat: each individual being furnished with a broad leathern shoulder-belt, which could readily be fastened to or detached from the drag-ropes. The interior arrangement consisted only of two thwarts; a locker at each end for the nautical and other instruments, and for the smaller stores; and a very slight framework along the sides for containing the bags of biscuit and our spare clothes. A bamboo mast nineteen feet long, a tanned duck sail, answering also the purpose of an awning, a spreat, one boat-hook, fourteen paddles, and a steer-oar, completed each boat's equipment.

Two officers and twelve men (ten of the latter being seamen, and two marines) were selected for each boat's crew. It was proposed to take with us resources for ninety days; to set out from Spitzbergen, if possible, about the beginning of June; and to occupy the months of June, July, and August in attempting to reach the Pole and returning to the ship; making an average journey of thirteen miles and a half per day. Our provisions consisted of biscuit of the best wheaten flour; beef *pemmican*;[014] sweetened cocoa-powder, and a small proportion of rum, the latter concentrated to fifty-five per cent. above proof, in order to save weight and stowage. The proper instruments were provided, both by the Admiralty and the Board of Longitude, for making such observations as might be interesting in the higher latitudes, and as the nature of the enterprise would permit. Six pocket chronometers, the property of the public, were furnished for this service; and Messrs. Parkinson and Frodsham, with their usual liberality, intrusted to our care several other excellent watches, on trial, at their own expense.

Annexed is a list of the different articles composing the equipment of the boats, together with the actual weight of each.

	Enter-prise lbs.	Endeav-our lbs.
Boat	1539	1542
Bamboo mast, 1 spreat, 1 boat-hook, 1 steer-oar.	46-1/2	46-1/2
Fourteen paddles	41	41
Sail (or awning)	22	22
Spare rope and line	6	6
Small sounding line (750 fathoms in all)	8	10
Carpenters' tools, screws, nails, &c.	10	10
Copper and felt for repairs	19	19
Four fowling pieces,with 2 bayonets.	15	15
Small articles for guns.	--	4
Ammunition	17-1/2	17-1/2
Instruments.	29	29
Books.	7	5-1/2
S {		
p {Fur Suits for sleeping in (14 in each boat)	162	162
a {Thick-nailed boots (14 in each boat)	47	47
r {Esquimaux do., with spare soles (14 in each		
e { boat	33	33
C {Flannel shirts (7 in each boat)	8-3/4	8-3/4
l {Guernsey frocks (do. do.)	11-1/2	11-1/2
o {Thick drawers (do. do.)	14	14
t {Mittens (28 in each boat)	5	5
h {Comforters (14 in each boat)	1	1
e {Scotch caps (do. do.)	4	4
s {		

A bag of small articles for the officers, including soap, &c., &c.	4	4	
Do. do. for the men do.	12	12	
Biscuit	628	628	
Pemmican	564	564	
Rum	180	180	
Cocoa powder, sweetened.	63	63	
Salt	14	14	
Spirits of Wine	72	72	
Cooking apparatus.	--	20	
Tobacco	20	20	
Medicine chest	19	--	
Pannikins, knife, fork, and spoon (14 in each boat)	5	5	
Weighing-dials and measures	2	2	
Various small articles for repairs, &c., not mentioned above	14	--	
Packages for provisions, clothes, &c	110	116	
	14)3753 1/4	3753 3/4	
Weight, per man	268 lbs.		

Exclusive of four sledges, weighing 26 lbs. each.

I have not thought it necessary, in the course of this volume, to enter into any examination of the question respecting the approaches to the North Pole which had already been effected previous to our late attempt. I shall, therefore, only add that, after carefully weighing the various authorities, from which every individual interested in this matter is at liberty to form his own conclusions, my own impartial conviction, at the time of our setting out on this enterprise, coincided (with a single exception) with the opinion expressed by the Commissioners of Longitude in their memorial to the king, that "the progress of discovery had not arrived northward, according to any well-authenticated accounts, so far as eighty-one degrees of north latitude." The exception to which I allude is in favour of Mr. Scoresby, who states his having, in the year 1806, reached the latitude of 81° 12' 42" by actual observation, and 81° 30' by dead reckoning. I therefore consider the latter parallel as, in all probability, the highest which had ever been attained prior to the attempt recorded in the following pages.

The Hecla being ready to proceed down the river, she was taken in tow, at ten A.M. on the 25th of March, 1827, by the Lightning steam-vessel; and having received and returned the cheers of the Greenwich pensioners, the children of the Naval Asylum, and of various ships in the river, she made fast to the moorings at Northfleet at three P.M. The following day was occupied in swinging the ship round on the various points of the compass, in order to obtain the amount of the deviation of the magnetic needle produced by the attraction of the ship's iron, and to fix Mr. Barlow's plate for correcting it.[015] On the 3d of April the ship's company received three months' wages in advance, together with their river-pay; and on the following morning, at half past four, we weighed and made sail from the Nore.

We had at this time remarkably fine weather for the season of the year, and such a continuance of southerly winds that we arrived off the island of Soroe, within which Hammerfest lies, on the 17th, without having had occasion to make a tack till we entered the fiord which forms the northern entrance.

The wind becoming light from the southward, and very variable, we were occupied the whole of the 18th in beating up towards Hammerfest. In the evening a Lapland boat came on board, and one of the men undertook to pilot the ship to the anchorage, which, after beating all night against an ebb tide, we reached at three A.M. on the 19th. Finding that our reindeer had not arrived, I immediately despatched Lieutenant Crozier, in one of our own boats, to Alten, from whence they were expected—a distance of about sixty English miles. At the same time, we landed our observatories and instruments at Fugleness, near the establishment of Messrs. Crowe and Woodfall, the British merchants residing here; and Lieutenant Foster and myself immediately commenced our magnetic and other observations, which were continued during the whole of our stay here. We completed our supply of water, and obtained a small quantity of venison, with abundance of good fish (principally torsk and cod), and some milk. We also purchased a set of snow-shoes for our travelling party, together with the Lapland shoes of leather (called Kamooga[016]), which are the most convenient and comfortable for wearing with them; and we practised our people in the manner of walking in them in deep snow, which afforded them fine exercise and amusement.

On the 23d, Lieutenant Crozier returned in the boat from Alten, and was followed the next day by Mr. Wooodfall, who brought with him eight reindeer for our use, together with a supply of moss for their provender (*cenomyce rangiferina*). As, however, the latter required a great deal of picking, so as to render it fit to carry with us over the ice, and as it was also necessary that we should be instructed in the manner of managing the deer, I determined on remaining a day or two longer for these purposes. Nothing can be more beautiful than the training of the Lapland reindeer. With a simple collar of skin round his neck, a single trace of the same material attached to the "pulk" or sledge, and passing between his legs, and one rein, fastened like a halter about his neck, this intelligent and docile animal is perfectly under the command of an experienced

driver, and performs astonishing journeys over the softest snow. When the rein is thrown over on the off side of the animal, he immediately sets off at a full, trot, and stops short the instant it is thrown back to the near side. Shaking the rein over his back is the only whip that is required. In a short time after setting off, they appear to be gasping for breath, as if quite exhausted; but, if not driven too fast at first, they soon recover this, and then go on without difficulty. The quantity of *clean* moss considered requisite for each deer per day is four pounds; but they will go five or six days without provender, and not suffer materially. As long as they can pick up snow as they go along, which they like to eat quite clean, they require no water; and ice is to them a comfortable bed. It may well be imagined, with such qualifications, how valuable these animals seemed likely to prove to us; and the more we became accustomed, and, I may say, attached to them, the more painful became the idea of the necessity which was likely to exist, of ultimately having recourse to them as provision for ourselves.

Our preparations were completed on the 27th, but the wind continuing fresh from the northwestern quarter in the offing, we had no prospect of making any progress till the morning of the 29th, when we weighed at six A.M.

On the 5th of May, being in latitude 73° 30', and longitude 7° 28' E., we met with the first straggling mass of ice, after which, in sailing about 110 miles in a N.N.W. direction, there was always a number of loose masses in sight; but it did not occur in continuous "streams" till the morning of the 7th, in latitude 74° 55', a few miles to the eastward of the meridian of Greenwich. On the 10th several whalers were in sight, and Mr. Bennett, the master of the Venerable, of Hull, whom we had before met in Baffin's Bay in 1818, came on board. From him I learned that several of the ships had been in the ice since the middle of April, some of them having been so far to the westward as the island of Jan Mayen, and that they were now endeavouring to push to the northward. They considered the ice to offer more obstacles to the attainment of this object than it had done for many years past.[017] None of the ships had yet taken a single whale, which, indeed, they never expect to do to the southward of about 78°.

In the afternoon, after waiting for some time for the ice to open, we again entered it, in company with all the whalers, and by the following morning had succeeded in pushing about fifty miles farther to the northward, though not without some heavy blows in "boring" through the ice.

At five A.M. on the 14th we passed Magdalena Bay, and by ten o'clock had arrived off Hakluyt's Headland, round which we hauled to the southeastward, to look, for anchorage in Smerenburg Harbour. In this, however, we were disappointed, the whole place being occupied by one unbroken floe of ice, still firmly attached to the land on each side. Here we made fast, though not without considerable difficulty; the wind, which was now freshening from the southward, blowing in such violent and irregular gusts off the high land that the ship was scarcely manageable. Walruses, dovekies, and eider-ducks were very numerous here, especially the former; and four reindeer came down upon the ice near the ship.

We now prepared a quantity of provisions and other stores to land at Hakluyt's Headland, as a supply for my party on our return from the northward; so that, in case of the ship being obliged to go more to the southward, or of our not being able at once to reach her, we should be furnished with a few days' resources of every kind. Our intentions were, however, frustrated for the present; for we had scarcely secured our hawsers, when a hard gale came on from the southward, threatening every moment to snap them in two, and drive us from our anchorage. We held on for several hours, till, at nine P.M., some swell having set in upon the margin of the ice, it began to break off and drift away. Every possible exertion was instantly made to shift our stream cable farther in upon the floe; but it broke away so quickly as to baffle every endeavour, and at ten the ship went adrift, the wind blowing still harder than before. Having hauled in the hawsers and got the boats on board, we set the close-reefed topsails, to endeavour to hang to windward; but the wind blew in such tremendous gusts from the high land as almost to lay the ship on her beam-ends; so that we were obliged to reduce our canvass to the main topsail and stormsails, and let her drive to leeward.[018] The situation of the ship now appeared a very precarious one, the wind still blowing with unabated violence, and with every appearance of a continuance of stormy weather. Under these circumstances, it was the general opinion of the officers, as well as my own, that it was advisable to take advantage of the comparatively smooth water within the stream of ice, and to run the ship into the pack, rather than incur the risk of having to do the same thing in a heavy sea. This plan succeeded remarkably well; a tolerably smooth and open part of the margin being selected, the ship was forced into it at three A.M., when, after encountering a few severe blows from the heavy washed pieces which always occur near the sea-edge, she was gradually carried onward under all sail, and at four A.M. we got into a perfectly smooth and secure situation, half a mile within the margin of a "pack."

It was impossible not to consider ourselves highly fortunate in having thus early, and with no great difficulty, succeeded in reaching the highest latitude to which it was our object to take the ship. But, from what we had already seen at Smerenburg, it was also impossible not to feel much anxiety as to the prospect of getting her into any secure harbour before the proper time of my departure to the northward should arrive. However, we could only wait patiently for the result of a few more days; and, in the mean time, everybody was busily employed in completing the arrangements for our departure, so that, if an opportunity did offer of securing the ship, we might have nothing else to attend to. Our deer were in good order, having been thriving well ever since they came on board; they make excellent sailors, and do not seem to mind bad weather, always lying down quite comfortable whenever there is any sea.

In order to try what our chances were, at the present low temperature, of procuring water upon the ice without expense of fuel, we laid a black painted canvass cloth, and also a piece of black felt, upon the surface of the snow; the temperature of the atmosphere being from 18° to 23°. These substances had, in a couple of hours, sunk half an inch into the snow, but no water could be collected. I was desirous, also, of ascertaining whether any part of the real sea-ice was so entirely fresh when melted as to be drunk without injury or inconvenience. For this purpose we cut a block of ice from a large hummock, about ten feet high above the sea; and having broken, pounded, and melted it, without any previous washing, we found it, both by the hydrometer and by the chemical test (nitrate of silver), *more* free from salt than any which we had in our tanks, and which was procured from Hammerfest. I considered this satisfactory, because, in the autumn, the pools of water met with upon the ice generally become very brackish, in consequence of the sea-water being drawn up into them by capillary action as the ice becomes more "rotten" and porous; and we might, therefore, have to depend chiefly on melted ice for our daily supply.

No change took place till the 21st, when, on the weather clearing up, we found that the open water we had left to the westward was now wholly closed up, and that there was none whatever in sight. It was now also so close in-shore, that on the 22d, Lieutenant Ross, with a party of officers and men, succeeded in landing without difficulty. They found a small floe of level ice close to the beach, which appeared very lately formed. Walking up to a little conspicuous eminence near the eastern end of the beach, they found it to be composed of clay-slate, tinged of a brownish red colour. The few uncovered parts of the beach were strewed with smooth schistose fragments of the same mineral, and in some parts a quantity of thin slates of it lay closely disposed together in a vertical position. On the little hillock were two graves, bearing the dates of 1741 and 1762 on some of the stones which marked them, and a considerable quantity of fir driftwood lay upon the beach.

I now clearly saw that there was, for the present, no reasonable prospect of our getting towards any harbour; and I could not but feel confident that, even if we did get to the entrance of any, some time must be occupied in securing the ship. It may be well imagined how anxious I had now become to delay no longer in setting out upon the main object of the expedition. I felt that a few days at the commencement of the season, short as it is in these regions, might be of great importance as to the result of our enterprise, while the ship seemed to be so far secure from any immediate danger as to justify my leaving her, with a reduced crew, in her present situation. The nature of the ice was, beyond all comparison, the most unfavourable for our purpose that I remember to have ever seen. It consisted only of loose pieces, scarcely any of them fifteen or twenty yards square; and when any so large did occur, their, margins were surrounded by the smaller ones, thrown up by the recent pressure into ten thousand various shapes, and presenting high and sharp angular masses at every other step. The men compared it to a stone-mason's yard, which, except that the stones were of ten times the usual dimensions, it indeed very much resembled. The only inducement to set out over such a road was the certainty that floes and fields lay beyond it, and the hope that they were not *far* beyond it. In this respect, indeed, I considered our present easterly position as a probable advantage, since the ice was much less likely to have been disturbed to any great extent northward in this meridian than to the westward clear of the land, where every southerly breeze was sure to be making havoc among it. Another very important advantage in setting off on this meridian appeared to me to be, that, the land of Spitzbergen lying immediately over against the ice, the latter could never drift so much or so fast to the southward as it might farther to the westward.

Upon these grounds it was that I was anxious to make an attempt, at least, as soon as our arrangements could be completed; and the officers being of the same opinion as myself, we hoisted out the boats early in the morning of the 27th, and, having put the things into one of them, endeavoured, by way of experiment, to get her to a little distance from the ship. Such however, were the irregularities of the ice, that, even with the assistance of an additional party of men, it was obvious that we could not have gained a single mile in a day, and, what was still more important, not without almost certain and serious injury to the boats by their striking against the angular masses. Under these circumstances, it was but too evident to every one that it would have been highly imprudent to persist in setting out, since, if the ice, after all, should clear away, even in a week, so as to allow us to get a few miles nearer the main body, time would be ultimately saved by our delay, to say nothing of the wear and tear, and expense of our provisions. I was, therefore, very reluctantly compelled to yield to this necessity, and to order the things to be got on board again.

Immediately after we had, on the 27th, proved experimentally the extreme difficulty of transporting our boats and stores over the ice which now surrounded us, I made up my mind to the very great probability there seemed to be of the necessity of adopting such alterations in our original plans as would accommodate them to these untoward circumstances at the outset. The boats forming the main impediment, not so much on account of their absolute weight as from the difficulty of managing so large a body upon a road of this nature, I made preparations for the possible contingency of our having to take only one, continuing the same number of men in our whole party. All that I saw reason to apprehend from having only a single boat on our outward journey, was some occasional delay in ferrying over spaces of water in two trips instead of one; but we considered that this would be much more than compensated by the increased rate at which we should go whenever we were upon the ice, as we expected to be nine days out of ten. The principal disadvantage, therefore, consisted in our not all being able to sleep in the boat, and this we proposed to obviate in the following manner.

We constructed out of the Lapland snow-shoes fourteen sledges, each sledge consisting of two pairs well fastened together. Upon these we proposed dragging almost all the weight, so as to keep the boat nearly without any cargo in her, as we found by experiment that a man could drag about three hundred pounds on one of the sledges with more facility than he could drag the boat when his proportion did not exceed one hundred pounds. Upon these sledges we proposed lodging half our party alternately each night, placing them under the lee of the boat, and then stretching over them, as a sloped roof, a second awning, which we fitted for the purpose. Upon this plan we likewise could afford to make our boat considerably stronger, adding some stout iron knees to the supports of her runners, and increasing our store of materials for repairing her. The weight reduced by this arrangement would have been above two thousand pounds, without taking away any article conducive to our comfort, except the boat and her gear. I proposed to the officers and men who had been selected to accompany me this change in our equipment; and I need scarcely say that they all clearly saw the probable necessity of it, and cheerfully acquiesced in its adoption, if requisite.

On the 29th I sent Lieutenants Foster and Crozier, with the greater part of the ship's company, and with a third or spare travelling-boat, to endeavour to land her on Red Beach, together with a quantity of stores, including provisions, as a deposite for us on our return from the northward, should it so happen, as was not improbable, that we should return to the eastward. It is impossible to describe the labour attending this attempt. Suffice it to say, that, after working for fourteen hours, they returned on board at midnight, having accomplished about four miles out of the six. The next day they returned to the boat, and, after several hours' exertion, landed her on the beach with the stores. What added to the fatigue of this service was the necessity of taking a small boat to cross pools of water on their return, so that they had to drag this boat both ways, besides that which they went to convey. Having, however, had an opportunity of trying what could be done upon a regular and level floe which lay close to the beach, everybody was of opinion, as I had always been, that we could easily travel twenty miles a day on ice of that kind.

It will not be wondered at if the apparent hopelessness of getting the ship free for the present again suggested the necessity of my own setting out: and I had once more, on the 1st of June, after an anxious consultation with my officers, resolved on making a second attempt, when the ice near us, which had opened at regular hours with the tide for three or four days past, began to set us much more rapidly than usual to the eastward, and towards a low point which runs off from Red Beach, near its western end, causing us to shoal the water in a few hours from fifty-two to twenty fathoms, and on the following morning to fourteen and a half. By sending a lead-line over the ice a few hundred yards beyond us, we found ten fathoms water. However unfavourable the aspect of our affairs seemed before, this new change could not fail to alter it for the worse. The situation of the ship now, indeed, required my whole attention; for the ice occasionally opened and shut within twenty or twenty-five yards of us on the in-shore side, the ship herself was still very firmly imbedded by the turned up masses which pressed upon her on the 19th, and which, on the other side, as well as ahead and astern, were of considerable extent. Thus she formed, as it were, part of a floe, which went drifting about in the manner above described. This was of little importance while she was in sixty fathoms of water, as she was for the first fourteen days of our besetment, and a distance of five or six miles from the land; but now that she had shoaled the water so considerably, and approached the low point within two or three miles, it became a matter of importance to try whether any labour we could bestow upon it would liberate the ship from her present imbedded state, so as to be at least ready to take advantage of slack water, should any occur, to keep her off the shore. All hands were therefore set to work with handspikes, capstan-bars, and axes, it being necessary to detach every separate mass, however small, before the larger ones could be moved. The harassing and laborious nature of this operation is such as nothing but experience can possibly give an idea of, especially when, as in this case, we had only a small pool of clear water near the margin in which the detached pieces could be floated out. However, we continued at work, with only the necessary intermissions for rest and meals, during this and the two following days, and on the evening of the 3d had accomplished all that the closeness of the ice would permit; but the ship was still by no means free, numberless masses of ice being doubled under her, even below her keel, which could not be moved without more space for working.

Painful as was this protracted delay in setting out upon the principal object of the expedition, the absolute necessity of it will scarcely, I think, be doubted by any person conversant in such matters. So long as the ship continued undisturbed by the ice, nearly stationary, and in deep water, for several days together, I had, in my anxiety to lose not a moment's time, ventured to flatter myself with the hope that, in a case of such unlooked-for emergency, when every moment of our short and uncertain season was of importance, I might be justified in quitting my ship at sea; and in this opinion the zeal of my officers, both those who were to accompany me and those who were to remain on board, induced them unanimously to concur. But the case was now materially altered; for it had become plain to every seaman in the ship, first, that the safety of the Hecla, if thus left with less than half her working hands, could not be reckoned upon for an hour; and, secondly, that no human foresight could enable us to conjecture, should we set out while she was thus situated, when or where we should find her on our return. In fact, it appeared to us at this time, as indeed it was, a very providential circumstance, that the impracticable nature of the ice for travelling had offered no encouragement to persevere in my original intention of setting out a week before this time.

For the two following days we continued closely beset, but still driving to the eastward across the mouth of Weyde Bay, which is here six or seven miles in breadth, and appeared to be very deep,

the land in the centre receding to a distance of full eight leagues. In the afternoon of the 6th, we had driven within five miles of a point of land, beyond which, to the eastward, it seemed to recede considerably; and this appearing to answer tolerably to the situation of Muscle or Mussel Bay, as laid down in most of the charts, I was very anxious to discover whether we could here find shelter for the ship. A lane of water leading towards the land at no great distance from us, I hauled a boat over the ice and then rowed on shore, accompanied by Lieutenant Foster and some of the other officers, taking with me another small store of provisions, to be deposited here, as a future resource for my party, should we approach this part of the coast.

Landing at half past six P.M., and leaving Mr. Bird to bury the provisions, Lieutenant Foster and myself walked without delay to the eastward, and, on ascending the point, found that there was, as we had supposed, an indentation in the coast on the other side. We now began to conceive the most flattering hopes of discovering something like a harbour for the ship, and pushed on with all possible haste to examine the place farther; but, after three hours walking, were much mortified, on arriving at its head, to find that it was nothing but an open bay, entirely exposed to the inroads of all the northern ice, and therefore quite unfit for the ship. We returned to the boat greatly disappointed, and reached the Hecla at 1.30 A.M. on the 7th.

I do not remember to have ever experienced in these regions such a continuance of beautiful weather as we now had, during more than three weeks that we had been on the northern coast of Spitzbergen. Day after day we had a clear and cloudless sky, scarcely any wind, and, with the exception of a few days previous to the 23d of May, a warm temperature in the shade, and quite a scorching sun. On the 3d of June we had a shower of rain, and on the 6th it rained pretty hard for two or three hours. After the 1st of June we could procure abundance of excellent water upon the ice, and by the end of the first week the floe-pieces were looking blue with it in some parts, and the snow had everywhere become too soft to bear a man's weight.

On the 7th, the ship, still closely beset, had drifted much more to the eastward, being within a mile of the spot where the provisions had been deposited the preceding evening. There was now no other ice between us and the land except the floe to which we had been so long attached; and round this we were occasionally obliged to warp, whenever a little slackening of the ice permitted, in order to prevent our getting too near the rocks. In this situation of suspense and anxiety we still remained until the evening of the 8th, when a breeze at length springing up from the southward began to open out the ice from the point near which we lay. As soon as the channel was three or four hundred yards wide, we warped into the clear water, and, making sail, rounded the point in safety, having no soundings with twenty fathoms, at one third of a mile from a small rocky islet lying off it. In the mean time the wind had been driving the ice so fast off the land as to form for us a clear communication with the open water before seen to the eastward; and thus we were at length liberated from our confinement, after a close and tedious "besetment" of twenty-four days.

The weather continued so thick, that, impatient as we were to stand in towards the eastern land, we could not venture to do so till eleven A.M. on the 10th, when we made sail towards Brandywine Bay, the wind being now from the W.S.W., or nearly dead upon that shore. The weather clearing up at 1.15 P.M., we saw the eastern land, and soon after discovered the grounded ice off Low Island; Walden's Island was also plainly in sight to the N.E. The bay seemed deeply indented, and very likely to afford nooks such as we wanted; and where so large a space of open water, and, consequently, some sea, had been exerting its influence for a considerable time, we flattered ourselves with the most sanguine hopes of now having access to the shores, sufficiently near, at least, for sawing into some place of shelter. How, then, shall I express our surprise and mortification in finding that the whole of the coast, from the islands northward to Black Point, and apparently also as far as Walden's Island, was rendered inaccessible by one continuous and heavy floe, everywhere attached to the shores, and to the numberless grounded masses about the island, this immense barrier being in some places six or seven miles in width, and not less than twelve feet in thickness near the margin.

The prospect from our masthead at this time was certainly enough to cast a damp over every sanguine expectation I had formed, of being *soon* enabled to place the Hecla in security; and more willingly than ever would I, at this period, have persuaded myself, if possible, that I should be justified in quitting her at sea. Such, however, was the nature of this navigation, as regarded the combined difficulties arising from ice and a large extent of shoal and unsurveyed ground, that, even with our full complement of officers and men on board, all our strength and exertions might scarcely have sufficed, in a single gale of wind, to keep the ship tolerably secure, and much less could I have ensured placing her ultimately in any proper situation for picking up an absent party; for, if once again beset, she must, of course, be at the mercy of the ice. The conclusion was, therefore, irresistibly forced upon my mind, that thus to leave the ship would be to expose her to imminent and certain peril, rendering it impossible to conjecture where we should find her on our return, and, therefore, rashly to place all parties in a situation from which nothing but disaster could reasonably be expected to ensue.

After beating through much ice, which was all of the drift or broken kind, and had all found its way hither in the last two days, we got into an open space of water in-shore, and about six miles to the northward of Low Island; and on the morning of the 13th stretched in towards Walden Island, around which we found, as we had feared, a considerable quantity of fixed ice. It was certainly much less here, than elsewhere; but the inner, or eastern side of the island was entirely enveloped by it.

Having from twenty-six to twenty-four fathoms at the distance of four miles from Walden Island, I was preparing two boats, with the intention of going to sound about its northern point, which was the most clear of ice, and not without a faint hope of finding something like shelter there; but I was prevented by a thick fog coming on. Continuing, therefore, to beat to the northward, we passed occasionally a good deal of drift ice, but with every appearance of much clear water in that direction; and the weather clearing about midnight, we observed in latitude 80°43'32". The Seven Islands were in sight to the eastward, and the "Little Table Island" of Phipps bore E.N.E. (true) distant about nine or ten miles. It is a mere craggy rock, rising, perhaps, from four to five hundred feet above the level of the sea, and with a small low islet lying off its northern end. This island, being the northernmost known land in the world, naturally excited much of our curiosity; and bleak, and barren, and rugged as it is, one could not help gazing at it with intense interest.

At midnight on the 14th we had reached the latitude 81°5'32" Our longitude by chronometers at this time was 19° 34' E., Little Table Island bearing S. 26° E. (true), distant six or seven leagues, and Walden Island S. 4° E.[019] The depth of water was ninety-seven fathoms, on a bottom of greenish mud; and the temperature at ninety-five fathoms, by Six's thermometer, was 29.8°, that at the surface being 31°, and of the air 28°. All that could here be seen to the northward was loose drift-ice. To the northeast it was particularly open, and I have no doubt that we might have gone many miles farther in that direction, had it not been a much more important object to keep the ship free than to push her to the northward.

We now stood back again to the southward, in order again to examine the coast wherever we could approach it; but found, on the 15th, that none of the land was at all accessible, the wind having got round to the W.N.W., and loaded all the shores with drift-ice.

Walden Island being the first part clear of the loose ice, we stretched in for it on the 16th, and, when within two miles, observed that about half that space was occupied by land-ice, even on its northwestern side, which was the only accessible one, the rest being wholly enclosed by it. However, being desirous of obtaining a better view than our crow's-nest commanded, and also of depositing here a small quantity of provisions, I left the ship at one P.M., accompanied by Lieutenant Foster in a second boat, and, landing upon the ice, walked over about three quarters of a mile of high and rugged hummocks to the shore. Ascending two or three hundred feet, we had a clear and extensive view of the Seven Islands, and of some land far beyond them to the eastward; and the whole sea was covered with one unbroken land-floe, attached to all the shores extending from the island where we stood, and which formed an abutment for it each way along the land as far as the eye could reach. After this discouraging prospect, which wholly destroyed every hope of finding a harbour among the Seven Islands, we returned to the place where the men had deposited the provisions, and, after making the necessary observations for the survey, returned immediately on board.

Observing from the island that the sea was perfectly clear to the northward, we now stood for Little Table Island, with some slight hope that the rock off its northern end might afford shelter for the ship; at all events, being the most exposed, on account of its situation, it was the most likely to be free from ice. A thick fog prevented our getting near it till the morning of the 17th, when, having approached it within a mile and a half, I sent Lieutenant Ross on shore to a little islet, which was quite free from ice, where he deposited another small store of provisions, but found nothing like shelter for the ship.

Having no farther business here, and the easterly wind still continuing, I thought the best thing we could do would be to run again to the southward of Low Island, and try once more to approach the shores about the entrance of the Waygatz Strait. We therefore bore up under all sail to the southwest.

It would be vain to deny that I had lately begun to entertain the most serious apprehensions as related to the accomplishment of our principal object. The 17th of June had now arrived, and all that we saw afforded us the most discouraging prospect as to our getting the Hecla into harbour; while every day's experience showed how utterly rash a measure it would be to think of quitting her in her present situation, which, even with all her officers and men, was one of extreme precariousness and uncertainty.

On the evening of the 18th, while standing in for the high land to the eastward of Verlegen Hook, which, with due attention to the lead, may be approached with safety, we perceived from the crow's-nest what appeared a low point, possibly affording some shelter for the ship, and which seemed to answer to an indentation of the coast laid down in an old Dutch chart, and there called *Treurenburg Bay*.

On the following morning I proceeded to examine the place, accompanied by Lieutenant Ross in a second boat, and, to our great joy, found it a considerable bay, with one part affording excellent landlocked anchorage and, what was equally fortunate, sufficiently clear of ice to allow the ship to enter. Having sounded the entrance and determined on the anchorage, we returned to the ship to bring her in; and I cannot describe the satisfaction which the information of our success communicated to every individual on board. The main object of our enterprise now appeared almost within our grasp, and everybody seemed anxious to make up, by renewed exertions, for the time we had unavoidably lost. The ship was towed and warped in with the greatest alacrity, and at 1.40 A.M. on June 20th, we dropped the anchor in Hecla Cove, in thirteen fathoms, on a bottom of very tenacious blue clay, and made some hawsers fast to the land-ice, which still filled all the upper part of the bay. After resting a few hours, we sawed a canal a quarter of a mile in

length, through which the ship was removed into a better situation, a bower-cable taken on shore and secured to the rocks, and an anchor, with the chain-cable, laid out the other way. On the morning of the 21st we hauled the launch up on the beach, it being my intention to direct such resources of every kind to be landed as would render our party wholly independent of the ship, either for returning to England or for wintering, in case of the ship being driven to sea by the ice; a contingency against which, in these regions, no precaution can altogether provide. I directed Lieutenant Foster, upon whom the charge of the Hecla was now to devolve, to land without delay the necessary stores, keeping the ship seaworthy by taking in an equal quantity of ballast; and, as soon as he should be satisfied of her security from ice, to proceed on the survey of the eastern coast; but, should he see reason to doubt her safety with a still farther diminution of her crew to relinquish the survey, and attend exclusively to the ship. I also gave directions that notices should be sent, in the course of the summer, to the various stations where our depots of provisions were established, acquainting me with the situation and state of the ship, and giving me any other information which might be necessary for my guidance on our return from the northward. These and other arrangements being completed, I left the ship at five P.M. with our two boats, which we named the Enterprise and Endeavour, Mr. Beverly being attached to my own, and Lieutenant Ross, accompanied by Mr. Bird, in the other. Besides these, I took Lieutenant Crozier in one of the ship's cutters, for the purpose of carrying some of our weight as far as Walden Island, and also a third store of provisions to be deposited on Low Island, as an intermediate station between Walden Island and the ship. As it was still necessary not to delay our return beyond the end of August, the time originally intended, I took, with me only seventy-one days provisions; which, including the boats and every other article, made up a weight of 268 lbs. per man; and as it appeared highly improbable, from what we had seen of the very rugged nature of the ice we should first have to encounter, that either the reindeer, the snow-shoes, or the wheels would prove of any service for some time to come, I gave up the idea of taking them. We, however, constructed out of the snow-shoes four excellent sledges for dragging a part of our baggage over the ice; and these proved of invaluable service to us, while the rest of the things just mentioned would only have been an encumbrance.

Having received the usual salutation of three cheers from those we left behind, we paddled through a quantity of loose ice at the entrance of the bay, and then steered, in a perfectly open sea, and with calm and beautiful weather, for the western part of Low Island, which we reached at half past two on the morning of the 22d.

Having deposited the provisions, we set off at four A.M., paddling watch and watch, to give the people a little rest. It was still quite calm; but there being much ice about the island, and a thick fog coming on, we were several hours groping our way clear of it. The walruses were here very numerous, lying in herds upon the ice, and plunging into the water to follow us as we passed. The sound they utter is something between bellowing and very loud snorting, which, together with their grim, bearded countenances and long tusks, makes them appear, as indeed they are, rather formidable enemies to contend with. Under our present circumstances, we were very well satisfied not to molest them, for they would soon have destroyed our boats if one had been wounded; but I believe they are never the first to make the attack. We landed upon the ice still attached to Walden Island at 3.30 A.M. on the 23d. Our flat-bottomed boats rowed heavily with their loads, but proved perfectly safe, and very comfortable. The men being much fatigued, we rested here some hours, and, after making our final arrangements with Lieutenant Crozier, parted with him at three in the afternoon, and set off for Little Table Island. Finding there was likely to be so much open water in this neighbourhood in the autumn, I sent directions to Lieutenant Foster to have a spare boat deposited at Walden Island in time for our return, in case of any accident happening to ours.

The land-ice, which still adhered to the Seven Islands, was very little more broken off than when the Hecla had been here a week before; and we rowed along its margin a part of the way to Little Table Island, where we arrived at ten P.M. We here examined and re-secured the provisions left on shore, having found our depôt at Walden Island disturbed by the bears. The prospect to the northward at this time was very favourable, there being only a small quantity of loose ice in sight; and the weather still continuing calm and clear, with the sea as smooth as a mirror, we set off without delay, at half past ten, taking our final leave of the Spitzbergen shores, as we hoped, for at least two months. Steering due north, we made good progress, our latitude by the sun's meridian altitude at midnight being 80° 51' 13". A beautifully-coloured rainbow appeared for some time, without any appearance of rain falling. We observed that a considerable current was setting us to the eastward just after leaving the land, so that we had made a N.N.E. course, distance about ten miles, when we met with some ice, which soon becoming too close for farther progress, we landed upon a high hummock to obtain a better view. We here perceived that the ice was close to the northward, but to the westward we discovered some open water, which we reached after two or three hours' paddling, and found it a wide expanse, in which we sailed to the northward without obstruction, a fresh breeze having sprung up from the S.W. The weather soon after became very thick, with continued snow, requiring great care in looking out for the ice, which made its appearance after two hours' run, and gradually became closer, till at length we were stopped by it at noon, and obliged to haul the boats upon a small floe-piece, our latitude by observation being 81° 12' 51".

Our plan of travelling being nearly the same throughout this excursion, after we first entered upon the ice, I may at once give some account of our usual mode of proceeding. It was my intention to travel wholly at night, and to rest by day, there being, of course, constant daylight in these regions during the summer season. The advantages of this plan, which was occasionally

deranged by circumstances, consisted, first, in our avoiding the intense and oppressive glare from the snow during the time of the sun's greatest altitude, so as to prevent, in some degree, the painful inflammation in the eyes called "snow blindness," which is common in all snowy countries. We also thus enjoyed greater warmth during the hours of rest, and had a better chance of drying our clothes; besides which, no small advantage was derived from the snow being harder at night for travelling. The only disadvantage of this plan was, that the fogs were somewhat more thick by night than by day, though even in this respect there was less difference than might have been supposed, the temperature during the twenty-four hours undergoing but little variation. This travelling by night and sleeping by day so completely inverted the natural order of things, that it was difficult to persuade ourselves of the reality. Even the officers and myself, who were all furnished with pocket chronometers, could not always bear in mind at what part of the twenty-four hours we had arrived; and there were several of the men who declared, and I believe truly, that they, never knew night from day during the whole excursion.[020]

When we rose in the evening, we commenced our day by prayers, after which we took off our fur sleeping-dresses and put on those for travelling; the former being made of camlet, lined with racoon-skin, and the latter of strong blue box-cloth. We made a point of always putting on the same stockings and boots for travelling in, whether they dried during the day or not; and I believe it was only in five or six instances, at the most, that they were not either wet or hard-frozen. This, indeed, was of no consequence, beyond the discomforture of first putting them on in this state, as they were sure to be thoroughly wet in a quarter of an hour after commencing our journey; while, on the other hand, it was of vital importance to keep dry things for sleeping in. Being "rigged" for travelling, we breakfasted upon warm cocoa and biscuit, and, after stowing the things in the boats and on the sledges, so as to secure them as much as possible from wet, we set off on our day's journey, and usually travelled from five to five and a half hours, then stopped an hour to dine, and again travelled four, five, or even six hours, according to circumstances. After this we halted for the night, as we called it, though it was usually early in the morning, selecting the largest surface of ice we happened to be near for hauling the boats on, in order to avoid the danger of its breaking up by coming in contact with other masses, and also to prevent drift as much as possible. The boats were placed close alongside each other, with their sterns to the wind, the snow or wet cleared out of them, and the sails, supported by the bamboo masts and three paddles, placed over them as awnings, an entrance being left at the bow. Every man then immediately put on dry stockings and fur boots, after which we set about the necessary repairs of boats, sledges, or clothes; and, after serving the provisions for the succeeding day, we went to supper. Most of the officers and men then smoked their pipes, which served to dry the boats and awnings very much, and usually raised the temperature of our lodgings 10° or 15°. This part of the twenty-four hours was often a time, and the only one, of real enjoyment to us; the men told their stories and "fought all their battles o'er again," and the labours of the day, unsuccessful as they too often were, were forgotten. A regular watch was set during our resting-time, to look out for bears or for the ice breaking up round us, as well as to attend to the drying of the clothes, each man alternately, taking this duty for one hour. We then concluded our day with prayers, and, having put on our fur-dresses, lay down to sleep with a degree of comfort, which perhaps few persons would imagine possible under such circumstances; our chief inconvenience being that we were somewhat pinched for room, and therefore obliged to stow rather closer than was quite agreeable. The temperature, while we slept, was usually from 36° to 45°, according to the state of the external atmosphere; but on one or two occasions in calm and warm weather, it rose as high as 60° to 66°, obliging us to throw off a part of our fur-dress. After we had slept seven hours, the man appointed to boil the cocoa roused us when it was ready by the sound of a bugle, when we commenced our day in the manner before described.

Our allowance of provisions for each man per day was as follows:

Biscuit	10 ounces.
Pemmican	9 ounces.
Sweetened Cocoa Powder	1 ounce, to make one pint.
Rum	1 gill.
Tobacco	3 ounces per week.

Our fuel consisted entirely of spirits of wine, of which two pints formed our daily allowance, the cocoa being cooked in an iron boiler over a shallow iron lamp, with seven wicks; a simple apparatus, which answered our purpose remarkably well. We usually found one pint of the spirits of wine sufficient for preparing our breakfast, that is, for heating twenty-eight pints of water, though it always commenced from the temperature of 32°. If the weather was calm and fair, this quantity of fuel brought it to the boiling point in about an hour and a quarter; but more generally the wicks began to go out before it had reached. 200°. This, however, made a very comfortable meal to persons situated as we were. Such, with very little variation, was our regular routine during the whole of this excursion.

We set off on our first journey over the ice at ten P.M. on the 24th, Table Island bearing S.S.W., and a fresh breeze blowing from W.S.W., with thick fog, which afterward changed to rain. The bags of pemmican were placed upon the sledges, and the bread in the boats, with the intention of securing the latter from wet; but this plan we were soon obliged to relinquish. We now commenced upon very slow and laborious travelling, the pieces of ice being of small extent and very rugged, obliging us to make three journeys, and sometimes four, with the boats and baggage, and to launch several times across narrow pools of water. We stopped to dine at five

A.M. on the 25th, having made, by our log (which we kept very carefully, marking the courses by compass, and estimating the distances), about two miles and a half of northing; and, again setting forward, proceeded till eleven A.M., when we halted to rest; our latitude, by observation at noon, being 81° 15' 13".

Setting out again at half past nine in the evening, we found our way to lie over nothing but small, loose, rugged masses of ice, separated by little pools of water, obliging us constantly to launch and haul up the boats, each of which operations required them to be unloaded, and occupied nearly a quarter of an hour. It came on to rain very hard on the morning of the 26th; and, finding we were making very little progress (having advanced not more than half a mile in four hours), and that our clothes would be soon wet through, we halted at half past one, and took shelter under the awnings. The weather improving at six o'clock, we again moved forward, and travelled till a quarter past eleven, when we hauled the boats upon the only tolerably large floe-piece in sight. The rain had very much increased the quantity of water lying upon the ice, of which nearly half the surface was now covered with numberless little ponds of various shapes and extent. It is a remarkable fact, that we had already experienced, in the course of this summer, more rain than during the whole of seven previous summers taken together, though passed in latitudes from 7° to 15° lower than this. A great deal of the ice over which we passed to-day presented a very curious appearance and structure, being composed, on its upper surface, of numberless irregular, needle-like crystals, placed vertically, and nearly close together; their length varying, in different pieces of ice, from five to ten inches, and their breadth in the middle about half an inch, but pointed at both ends. The upper surface of ice having this structure sometimes looks like greenish velvet; a vertical section of it, which frequently occurs at the margin of floes, resembles, while it remains compact, the most beautiful satin-spar, and asbestos when falling to pieces. At this early part of the season, this kind of ice afforded pretty firm footing; but, as the summer advanced, the needles became more loose and moveable, rendering it extremely fatiguing to walk over them, besides cutting our boots and feet, on which account the men called them "penknives."

We pursued our journey at half past nine P.M., with the wind at N.E., and thick weather, the ice being so much in motion as to make it very dangerous to cross in loaded boats, the masses being all very small. On this account we halted at midnight, having waded three quarters of a mile through water from two to five inches deep upon the ice. The thermometer was at 33°.

At seven A.M. on the 28th, we came to a floe covered with high and rugged hummocks, which opposed a formidable obstacle to our progress, occurring in two or three successive tiers, so that we had no sooner crossed one than another presented itself. Over one of these we hauled the boats with extreme difficulty by a "standing pull," and the weather being then so thick that we could see no pass across the next tier, we were obliged to stop at nine A.M. While performing this laborious work, which required the boats to be got up and down places almost perpendicular, James Parker, my coxswain, received a severe contusion in his back, by the boat falling upon him from a hummock, and the boats were constantly subject to very heavy blows, but sustained no damage.[021] The weather continued very foggy during the day, but a small lane of water opening out at no great distance from the margin of the floe, we launched the boats at eight in the evening among loose drift-ice, and, after some time, landed on a small floe to the eastward, the only one in sight, with the hope of its leading to the northward. It proved so rugged that we were obliged to make three, and sometimes four journeys with the boats and provisions, and this by a very circuitous route; so that the road, by which we made a mile of northing, was full a mile and a half in length, and over this we had to travel at least five, and sometimes seven times. Thus, when we halted to dine at two A.M., after six hours' severe toil, and much risk to the men and boats, we had only accomplished about a mile and a quarter in a N.N.E. direction. After dining we proceeded again till half past six, and then halted, very much fatigued with our day's work, and having made two miles and a half of northing. We were here in latitude, by account, 81° 23", and in longitude, by the chronometers, 21° 32' 34" E., in which situation the variation of the magnetic needle was observed to be 15° 31' westerly. We now enjoyed the first sunshine since our entering the ice, and a great enjoyment it was, after so much thick and wet weather. We rose at half past four P.M., in the hopes of pursuing our journey; but, after hauling the boats to the edge of the floe, found such a quantity of loose, rugged ice to the northward of us, that there was no possibility, for the present, of getting across or through it. Observing a small opening at 10.30 P.M., we launched the boats, and hauled them across several pieces of ice, some of them being very light and much decayed. Our latitude, by the sun's meridian altitude at midnight, was 81° 23'; so that we had made only eight miles of northing since our last observation at noon on the 25th.

The 30th commenced with snowy and inclement weather, which soon rendered the atmosphere so thick that we could no longer see our way, obliging us to halt till two P.M., when we crossed several small pools with great labour and loss of time. We had generally very light ice this day, with some heavy, rugged pieces intermixed; and, when hauling across these, we had sometimes to cut with axes a passage for the boats among the hummocks. We also dragged them through a great many pools of fresh water, to avoid the necessity of going round them. The wind freshening up from the S.S.W., we afterward found the ice gradually more and more open, so that, in the course of the day, we made by rowing, though by a very winding channel, five miles of northing; but were again stopped by the ice soon after midnight, and obliged to haul up on the first mass that we could gain, the ice having so much motion that we narrowly escaped being "nipped." We set out at 11.30 A.M. on the 1st July, the wind still fresh from the S.W., and some snow falling: but it was more than an hour before we could get away from the small pieces of ice on which we

slept, the masses beyond being so broken up and so much in motion, that we could not, at first, venture to launch the boats. Our latitude, observed at noon, was 81° 30' 41". After crossing several pieces, we at length got into a good "lead" of water, four or five miles in length; two or three of which, as on the preceding day, occurred under the lee of a floe, being the second we had yet seen that deserved that name. We then passed over four or five small floes, and across the pools of water that lay between them. The ice was now less broken up, and sometimes tolerably level; but from six to eighteen inches of soft snow lay upon it in every part, making the travelling very fatiguing, and obliging us to make at least two, and sometimes three, journeys with our loads. We now found it absolutely necessary to lighten the boat as much as possible, by putting the bread-bags on the sledges, on account of the "runners" of the boats sinking so much deeper into the snow; but our bread ran a great risk of being wetted by this plan.

We halted at eleven P.M. on the 1st, having traversed from ten to eleven miles, and made good, by our account, seven and half in a N.b.W. direction. We again set forward at ten A.M. on the 2d, the weather being calm, and the sun oppressively warm, though with a thick fog. The temperature in the shade was 35° at noon, and only 47° in the sun; but this, together with the glare from the snow, produced so painful a sensation in most of our eyes, as to make it necessary to halt at one P.M., to avoid being blinded. We therefore took advantage of this warm weather to let the men wash themselves, and mend and dry their clothes, and then set out again at half past three. The snow was, however, so soft as to take us up to our knees at almost every other step, and frequently still deeper; so that we were sometimes five minutes together in moving a single empty boat, with all our united strength. It being impossible to proceed under these circumstances, I determined to fall into our night-travelling again, from which we had of late insensibly deviated. We therefore halted at half past five, the weather being now very clear and warm, and many of the people's eyes beginning to fail. We did not set out again till after midnight, with the intention of giving the snow time to harden after so warm a day; but we found it still so soft as to make the travelling very fatiguing. Our way lay at first across a number of loose pieces, most of which were from five to twenty yards apart, or just sufficiently separated to give us all the labour of launching and hauling up the boats, without the advantage of making any progress by water; while we crossed, in other instances, from mass to mass, by laying the boats over as bridges, by which the men and the baggage passed. By these means, we at length reached a floe about a mile in length, in a northern direction; but it would be difficult to convey an adequate idea of the labour required to traverse it. The average depth of snow upon the level parts was about five inches, under which lay water four or five inches deep; but, the moment we approached a hummock, the depth to which we sank increased to three feet or more, rendering it difficult at times to obtain sufficient footing for one leg to enable us to extricate the other. The pools of fresh water had now also become very large, some of them being a quarter of a mile in length, and their depth above our knees. Through these we were prevented taking the sledges, for fear of wetting all our provisions; but we preferred transporting the boats across them, notwithstanding the severe cold of the snow-water, the bottom being harder for the "runners" to slide upon. On this kind of road we were, in one instance, above two hours in proceeding a distance of one hundred yards.

We halted at half past six A.M. to dine; and to empty our boots and wring our stockings, which, to our feelings, was almost like putting on dry ones; and again set out in an hour, getting at length into a "lane" of water a mile and a quarter long, in a N.N.E. direction. We halted for the night at half an hour before midnight, the people being almost exhausted with a laborious day's work, and our distance made good to the northward not exceeding two miles and a quarter. We allowed ourselves this night a hot supper, consisting of a pint of soup per man, made of an ounce of pemmican each, and eight or ten birds, which we had killed in the course of the last week; and this was a luxury which persons thus situated could perhaps alone duly appreciate.

We rose and breakfasted at nine P.M.; but the weather had gradually become so inclement and thick, with snow, sleet, and a fresh breeze from the eastward, that we could neither have seen our way, nor have avoided getting wet through had we moved. We therefore remained under cover; and it was as well that we did so, for the snow soon after changed to heavy rain, and the wind increased to a fresh gale, which unavoidably detained us till 7.30 P.M. on the 4th. The rain had produced even a greater effect than the sun in softening the snow. Lieutenant Ross and myself, in performing our pioneering duty, were frequently so beset in it, that sometimes, after trying in vain to extricate our legs, we were obliged to sit quietly down for a short time to rest ourselves and then make another attempt; and the men, in dragging the sledges, were often under the necessity of crawling upon all-fours to make any progress at all. Nor would any kind of snow-shoes have been of the least service, but rather an encumbrance to us, for the surface was so irregular, that they would have thrown us down at every other step. We had hitherto made use of the Lapland shoes, or *kamoogas*, for walking in, which are excellent for dry snow; but there being now so much water upon the ice, we substituted the Esquimaux boots, which had been made in Greenland expressly for our use, and which are far superior to any others for this kind of travelling. Just before halting, at six A.M. on the 5th, the ice at the margin of the floe broke while the men were handing the provisions out of the boats; and we narrowly escaped the loss of a bag of cocoa, which fell overboard, but fortunately rested on a "tongue." The bag being made of Mackintosh's waterproof canvass, the cocoa did not suffer the slightest injury.

We rose at five P.M., the weather being clear and fine, with a moderate breeze from the south; no land was in sight from the highest hummocks, nor could we perceive anything but broken loose ice in any direction. We hauled across several pieces which were scarcely fit to bear the weight of the boats, and in such cases used the precaution of dividing our baggage, so that, in case of

the ice breaking or turning over, we should not lose all at once. The farther we proceeded, the more the ice was broken; indeed, it was much more so here than we had found it since first entering the "pack." After stopping at midnight to dine and to obtain the meridian altitude, we passed over a floe full of hummocks, a mile and a half in length; but any kind of floe was relief to us after the constant difficulty we had experienced in passing over loose ice.

After several hours of very beautiful weather, a thick fog came on early on the morning of the 6th July, and at five A.M. we halted, having got to the end of the floe, and only made good two miles and a half to the northward. The fog continued very thick all day; but, being unwilling to stop on this account, we set out again at half past six in the evening, and passed over several small flat pieces with no great difficulty, but with much loss of time in launching and hauling up the boats. Towards the end of our day's journey, we landed on the only really level floe we had yet met with. It was, however, only three quarters of a mile in length, but, being almost clear of snow, afforded such good travelling, that, although much fatigued at the time, we hauled the boats and all the baggage across it at one journey, at the rate of about two miles an hour, and halted at the northern margin at five A.M. on the 7th. The prospect beyond was still very unfavourable, and at eight in the evening, when we again launched the boats, there was not a piece of large or level ice to be seen in a northern direction.

We halted at six A.M. on the 8th, in time to avoid a great deal of rain which fell during the day, and again proceeded on our journey at eight in the evening, the wind being fresh from the E.S.E., with thick, wet weather. We now met with detached ice of a still lighter kind than before, the only floe in sight being much to the eastward of our course. This we reached after considerable labour, in the hope of its leading to the northward, which it did for about one mile, and we then came to the same kind of loose ice as before. On the morning of the 9th July, we enjoyed the indescribable comfort of two or three hours' clear, dry weather, but had scarcely hung up our wet clothes, after halting at five A.M., when it again came on to rain; but, as everything was as wet as it could be, we left them out to take their chance. The rain continued most of the day, but we set out at half past seven P.M., crossing loose ice, as usual, and much of the surface consisting of detached vertical needles. After an hour, the rain became so heavy that we halted to save our shirts, which were the only dry clothes' belonging to us. Soon after midnight, the rain being succeeded by one of the thickest fogs I ever saw, we again proceeded, groping our way almost yard by yard from one small piece of ice to another, and were very fortunate in hitting upon some with level surfaces, and also a few tolerable-sized holes of water. At half past two we reached a floe which appeared at first a level and large one; but, on landing, we were much mortified to find it so covered with immense ponds, or, rather, small lakes of fresh water, that, to accomplish two miles in a north direction, we were under the necessity of walking from three to four, the water being too deep for wading, and from two hundred yards to one third of a mile in length. We halted at six A.M., having made only one mile and three quarters in a N.N.W. direction, the wind still blowing fresh from the eastward, with a thick fog. We were in latitude 82° 3' 19", and longitude, by chronometers, 23° 17' E., and we found the variation of the magnetic needle to be 13° 41' westerly. We moved again at seven P.M., with the weather nearly as foggy as before, our road lying across a very hummocky floe, on which we had considerable difficulty in getting the boats, the ice being extremely unfavourable both for launching and hauling them up. After stopping an hour at midnight to dine, we were again annoyed by a heavy fall of rain, a phenomenon almost as new to us in these regions until this summer, as it was harassing and unhealthy. Being anxious, however, to take advantage of a lane of water that seemed to lead northerly, we launched the boats, and by the time that we had crossed it, which gave us only half a mile of northing, the rain had become much harder, and our outer clothes, bread bags, and boats were thoroughly wet. After this we had better travelling on the ice, and also crossed one or two larger holes of water than we had met with for a long time, and halted for our night's rest at half past seven A.M., after nearly twelve hours' hard, but not altogether unsuccessful labour, having traversed about twelve miles, and made good by our account, seven and a half, in a N.W.b.N. direction. The rain ceased soon after we had halted, but was succeeded, by a thick, wet fog, which obliged us, when we continued our journey, to put on our travelling clothes in the same dripping state as when we took them off. The wind continued fresh from the southeastward, and at nine P.M. the weather suddenly cleared up, and gave us once more the inconceivably cheering, I had almost said the blessed, sight of a blue sky, with hard, well-defined white clouds floating across it. We halted at six A.M., after making, by our day's exertions, only three miles and a half of northing, our latitude at this time being 82° 14' 28", and our longitude, by chronometers, 22° 4' E. The thermometer was from 35° to 36° in the shade during most of the day, and this, with a clear sky over head, was now absolute luxury to us. Setting out again at seven P.M., we crossed a small lane of water to another floe; but this was so intersected by ponds, and by streams running into the sea, that we had to make a very circuitous route, some of the ponds being half-a mile in length. Notwithstanding the immense quantity of water still upon the ice, and which always afforded us a pure and abundant supply of this indispensable article, we now observed a mark round the banks of all the ponds, showing that the water was less deep in them, by several inches, than it had been somewhat earlier in the summer; and, indeed, from about this time, some small diminution in its quantity began to be perceptible to ourselves. We halted for our resting-time at six A.M. on the 13th, having gained only two miles and a half of northing, over a road of about four, and this accomplished by ten hours of fatiguing exertion. We were here in latitude, by the noon observation, 82° 17' 10", and could find no bottom with four hundred fathoms of line. We launched the boats at seven in the evening, the wind being moderate from the E.S.E., with fine, clear weather, and were still mortified in finding that no improvement took place in the road over which we had to travel; for the ice now before us was, if possible,

more broken up and more difficult to pass over than ever. Much of it was also so thin as to be extremely dangerous for the provisions; and it was often a nervous thing to see our whole means of existence lying on a decayed sheet, having holes quite through it in many parts, and which the smallest motion among the surrounding masses might have instantly broken into pieces. There was, however, no choice, except between this road and the more rugged though safer hummocks, which cost ten times the labour to pass over. Mounting one of the highest of these at nine P.M., we could discover nothing to the north, ward but the same broken and irregular surface; and we now began to doubt whether we should at all meet with the solid fields of unbroken ice which every account had led us to expect in a much lower latitude than this. A very strong, yellow ice-blink overspread the whole northern horizon.

We stopped to dine at half an hour past midnight, after more than five hours unceasing labour, in the course of which time we had only accomplished a mile and a half due north, though we had traversed from three to four, and walked at least ten, having made three journeys a great part of the way. We had launched and hauled up the boats four times, and dragged them over twenty-five separate pieces of ice. After dinner we continued the same kind of travelling, which was, beyond all description, harrassing to the officers and men. In crossing from mass to mass, several of which were separated about half the length of our sledges, the officers were stationed at the most difficult places to see that no precaution, was omitted which could ensure the safety of the provisions. Only one individual was allowed to jump over at a time, or to stand near either margin, for fear of the weight being too great for it; and when three or four men had separately crossed, the sledge was cautiously drawn up to the edge, and the word being given, the men suddenly ran away with the ropes, so as to allow no time for its falling in if the ice should break. Having at length succeeded in reaching a small floe, we halted at half past six A.M., much wearied by nearly eleven hours' exertion, by which we had only advanced three miles and a half in a N.N.W. direction. We rose at six P.M., and prepared to set out, but it rained so hard and so incessantly that it would have been impossible to move without a complete drenching. It held up a little at five, and at six we set out; but the rain soon recommenced, though less heavily than before. At eight the rain again became heavier, and we got under shelter of our awnings for a quarter of an hour, to keep our shirts and other flannel clothes dry; these being the only things we now had on which were not thoroughly wet. At nine we did the same, but before ten were obliged to halt altogether, the rain coming down in torrents, and the men being much exhausted by continued wet and cold, though the thermometer was at 36°, which was somewhat above our usual temperature. At half past seven P.M. we again pursued our journey, and, after much laborious travelling, we were fortunate, considering the fog, in hitting upon a floe which proved the longest we had yet crossed, being three miles from south to north, though alternately rugged and flat. From this we launched into a lane of water half a mile long from east to west, but which only gave us a hundred and fifty yards of northing.

The floe on which we stopped to dine, at one A.M. on the 16th, was not more than four feet thick, and its extent half a mile square; and on this we had the rare advantage of carrying all our loads at one journey. At half past six the fog cleared away, and gave us beautiful weather for drying our clothes, and once more the cheerful sight of the blue sky. We halted at half past seven, after being twelve hours on the road, having made a N.b.W. course, distance only six miles and a quarter, though we had traversed nine miles. We saw, during this last journey, a mallemucke and a second Ross gull: and a couple of small flies (to us an event of ridiculous importance) were found upon the ice.

We again pursued our way at seven in the evening, having the unusual comfort of putting on dry stockings, and the no less rare luxury of delightfully pleasant weather, the wind being moderate from the S.S.E. It was so warm in the sun, though the temperature in the shade was only 35°, that the tar was running out of the seams of the boats; and a blackened bulb held against the paint-work raised the thermometer to 72°. The floes were larger to-day, and the ice, upon the whole, of heavier dimensions than any we had yet met with. The general thickness of the floes, however, did not exceed nine or ten feet, which is not more than the usual thickness of those in Baffin's Bay and Hudson's Strait.

The 17th of July being one of the days on which the Royal Society of Edinburgh have proposed to institute a series of simultaneous meteorological observations, we commenced an hourly register of every phenomenon which came under our notice, and which our instruments and other circumstances would permit, and continued most of them throughout the day. Our latitude, observed at noon, was 82° 32' 10", being more than a mile to the southward of the reckoning, though the wind had been constantly from that quarter during the twenty-four hours.

After midnight the road became, if possible, worse, and the prospect to the northward more discouraging than before; nothing but loose and very small pieces of ice being in sight, over which the boats were dragged almost entirely by a "standing-pull." The men were so exhausted with their day's work, that it was absolutely necessary to give them something hot for supper, and we again served a little cocoa for that purpose. They were also put into good spirits by our having killed a small seal, which, the following night, gave us an excellent supper. The meat of these young animals is tender, and free from oiliness; but it certainly has a smell and a look which would not have been agreeable to any but very hungry people like ourselves. We also considered it a great prize on account of its blubber, which gave us fuel sufficient for cooking six hot messes for our whole party, though the animal only weighed thirty pounds in the whole.

Setting out at half past seven in the evening, we found the sun more distressing to the eyes than we had ever yet had it, bidding defiance to our crape veils and wire-gauze eye-shades;[022] but a

more effectual screen was afforded by the sun becoming clouded about nine P.M. At half past nine we came to a very difficult crossing among the loose ice, which, however, we were encouraged to attempt by seeing a floe of some magnitude beyond it. We had to convey the sledges and provisions one way, and to haul the boats over by another. One of the masses over which the boats came began to roll about while one of them was upon it, giving us reason to apprehend its upsetting, which must have been attended with some very serious consequence: fortunately, however, it retained its equilibrium long enough to allow us to get the boat past it in safety, not without several of the men falling overboard, in consequence of the long jumps we had to make, and the edges breaking with their weight.

On the morning of the 20th we came to a good deal of ice, which formed a striking contrast with the other, being composed of flat bay-floes, not three feet thick, which would have afforded us good travelling had they not recently been broken into small pieces, obliging us to launch frequently from one to another. These floes had been the product of the last winter only, having probably been formed in some of the interstices left between the larger bodies; and, from what we saw of them, there could be little doubt of their being all dissolved before the next autumnal frost. We halted at seven A.M., having, by our reckoning, accomplished six miles and a half in a N.N.W. direction, the distance traversed being ten miles and a half. It may therefore be imagined how great was our mortification in finding that our latitude, by observation at noon, was only 82° 36' 52", being less than *five* miles to the northward of our place at noon on the 17th, since which time we had certainly travelled *twelve* in that direction.

At five A.M. on the 21st, having gone ahead, as usual, upon a bay-floe, to search for the best road, I heard a more than ordinary noise and bustle among the people who were bringing up the boats behind. On returning to them, I found that we had narrowly, and most providentially, escaped a serious calamity; the floe having broken under the weight of the boats and sledges, and the latter having nearly been lost through the ice. Some of the men went completely through, and one of them was only held up by his drag-belt being attached to a sledge which happened to be on firmer ice. Fortunately the bread had, by way of security, been kept in the boats, or this additional weight would undoubtedly have sunk the sledges, and probably some of the men with them. As it was, we happily escaped, though we hardly knew how, with a good deal of wetting; and, cautiously approaching the boats, drew them to a stronger part of the ice, after which we continued our journey till half past six A.M., when we halted to rest, having travelled about seven miles N.N.W., our longitude by chronometers being 19° 52' east, and the latitude 82° 39' 10", being only two miles and a quarter to the northward of the preceding day's observation, or four miles and a half to the southward of our reckoning.

Our sportsmen had the good fortune to kill another seal to-day, rather larger than the first, which again proved a most welcome addition to our provisions and fuel. Indeed, after this supply of the latter, we were enabled to allow ourselves every night a pint of warm water for supper, each man making his own soup from such a portion of his bread and pemmican as he could save from dinner. Setting out again at seven in the evening, we were not sorry to find the weather quite calm, which sailors account "half a fair wind;" for it was now evident that nothing but a southerly breeze could enable us to make any tolerable progress, or to regain what we had lately lost.

Our travelling to-night was the very best we had during this excursion; for though we had to launch and haul up the boats frequently, an operation which, under the most favourable circumstances, necessarily occupies much time, yet the floes being large and tolerably level, and some good lanes of water occurring, we made, according to the most moderate calculation, between ten and eleven miles in a N.N.E. direction, and traversed a distance of about seventeen. We halted at a quarter past eight A.M. after more than twelve hours' actual travelling, by which the people were extremely fatigued; but, while our work seemed to be repaid by anything like progress, the men laboured with great cheerfulness to the utmost of their strength. The ice over which we had travelled was by far the largest and heaviest we met with during our whole journey; this, indeed, was the only occasion on which we saw anything answering in the slightest degree to the descriptions given of the main ice. The largest floe was from two and a half to three miles square, and in some places the thickness of the ice was from 15 to 20 feet. However, it was a satisfaction to observe that the ice had certainly improved; and we now ventured to hope that, for the short time that we could still pursue our outward journey, our progress would be more commensurate with our exertions than it had hitherto proved. In proportion, then, to the hopes we had begun to entertain, was our disappointment in finding, at noon, that we were in latitude 82° 43' 5", or not quite four miles to the northward of yesterday's observation, instead of the ten or eleven which we had travelled! We halted at seven A.M. on the 23d, after a laborious day's work, and, I must confess, a disheartening one to those who knew to how little effect we were struggling; which, however, the men did not, though they often laughingly remarked that "we were a long time getting to this 83°!" Being anxious to make up, in some measure, for the drift which the present northerly wind was in all probability occasioning, we rose earlier than usual, and set off at half past four in the evening. At half past five P.M. we saw a very beautiful natural phenomenon. A broad white fog-bow first appeared opposite the sun, as was very commonly the case; presently it became strongly tinged with, the prismatic colours, and soon afterward no less than five other complete arches were formed within the main bow, the interior ones being gradually narrower than those without, but the whole of them beautifully coloured. The larger bow, and the one next within it, had the red on the outer or upper part of the circle, the others on the inner side.

We halted at a quarter past three on the morning of the 24th, having made four miles and a half

N.N.E., over a road of about seven and a half, most of which we traversed, as usual, three times. We moved again at four P.M. over a difficult road, composed of small and rugged ice. So small was the ice now around us, that we were obliged to halt for the night at two A.M. on the 25th, being upon the only piece in sight, in any direction, on which we could venture to trust the boats while we rested. Such was the ice in the latitude of 82-3/4°.

The wind had now got round to the W.N.W., with raw, foggy weather, and continued to blow fresh all day. Snow came on soon after our halting, and about two inches had fallen when we moved again at half past four P.M. We continued our journey in this inclement weather for three hours, hauling from piece to piece, and not making more than three quarters of a mile progress, till our clothes and bread-bags had become very wet, and the snow fell so thick that we could no longer see our way. It was therefore necessary to halt, which we did at half past seven, putting the awnings over the boats, changing our wet clothes, and giving the men employment for the mere sake of occupying their minds. The weather improving towards noon on the 26th, we obtained the meridian altitude of the sun, by which we found ourselves in latitude 82° 40' 23"; so that, since our last observation (at midnight on the 22d), we had lost by drift no less than thirteen miles and a half; for we were now more than three miles to the *southward* of that observation, though we had certainly travelled between ten and eleven due north in this interval! Again, we were but one mile to the north of our place at noon on the 21st, though we had estimated our distance made good at twenty-three miles. Thus it appeared that for the last five days we had been struggling against a southerly drift exceeding four miles per day.

It had, for some time past, been too evident that the nature of the ice with which we had to contend was such, and its drift to the southward, especially with a northerly wind, so great, as to put beyond our reach anything but a very moderate share of success in travelling to the northward. Still, however, we had been anxious to reach the highest latitude which our means would allow, and with this view, although our whole object had long become unattainable, had pushed on to the northward for thirty-five days, or until half our resources were expended, and the middle of our season arrived. For the last few days the eighty-third parallel was the limit to which we had ventured to extend our hopes; but even this expectation had become considerably weakened since the setting in of the last northerly wind, which continued to drive us to the southward, during the necessary hours of rest, nearly as much as we could gain by eleven or twelve hours of daily labour. Had our success been at all proportionate to our exertions, it was my full intention to proceed a few days beyond the middle of the period for which we were provided, trusting to the resources we expected to find at Table Island. But I could not but consider it as incurring useless fatigue to the officers and men, and unnecessary wear and tear for the boats, to persevere any longer in the attempt. I determined, therefore, on giving the people one entire day's rest, which they very much needed, and time to wash and mend their clothes, while the officers were occupied in making all the observations which might be interesting in this latitude; and then to set out on our return on the following day. Having communicated my intentions to the people, who were all much disappointed at finding how little their labours had effected, we set about our respective occupations, and were much favoured by a remarkably fine day.

The highest latitude we reached was probably at seven A.M. on the 23d, when, after the midnight observation, we travelled, by our account, something more than a mile and a half, which would carry us a little beyond 82° 45'. Some observations for the magnetic intensity were obtained at this station. We here found no bottom with five hundred fathoms of line. At the extreme point of our journey, our distance from the Hecla was only 172 miles in a S. 8° W. direction. To accomplish this distance, we had traversed, by our reckoning, 292 miles, of which about 100 were performed by water, previous to our entering the ice. As we travelled by far the greater part of our distance on the ice three, and not unfrequently five, times over, we may safely multiply the length of the road by two and a half; so that our whole distance, on a very moderate calculation, amounted to 580 geographical or 668 statute miles, being nearly sufficient to have reached the Pole in a direct line.

Our day of rest (27th of July) proved one of the warmest and most pleasant to the feelings we had yet had upon the ice, though the thermometer was only from 31° to 36° in the shade, and 37° in the sun, with occasional fog; but to persons in the open air, calm and tolerably dry weather affords absolute enjoyment, especially by contrast with what we had lately experienced. Our ensigns and pendants were displayed during the day; and, sincerely as we regretted not having been able to hoist the British flag in the highest latitude to which we had aspired, we shall perhaps be excused in having felt some little pride in being the bearers of it to a parallel considerably beyond that mentioned in any other well-authenticated record.

At 4.30 P.M. on the 27th, we set out on our return to the southward, and I can safely say that, dreary and cheerless as were the scenes we were about to leave, we never turned homeward with so little satisfaction as on this occasion. To afford a chance of determining the general set of the current from this latitude, we left upon a hummock of ice a paper, sewn up in a water-proof canvass bag, and then enclosed in a water-tight tin canister, giving an account of the place where it was deposited, and requesting any person who should find it to send it to the secretary of the admiralty. Nothing worthy of particular notice occurred on this and the following day, on each of which we travelled eleven hours; finding the water somewhat more open and the floes less rugged than usual. Two of these were from two to three miles in length, and in one instance the surface was sufficiently level to allow us to drag the boats for three quarters of a mile with the sledges *in tow*. Our latitude, observed at noon of the 30th, was 82° 20' 37", or twelve miles and a

half to the southward of the preceding day's observation, though we had travelled only seven by our account; so that the drift of the ice had assisted us in gaining five miles and a half in that interval.

Setting out to continue our journey at five P.M., we could discover nothing from a high hummock but the kind of bay-ice before noticed, except on the floe on which we had slept. The travelling was very laborious, but we were obliged to go on till we could get to a secure floe for resting upon, which we could not effect till half past four on the 31st, when, in eleven hours and a half, we had not made more than two miles and a quarter of southing. However, we had the satisfaction, which was denied us on our outward journey, of feeling confident that we should keep all that we gained, and probably make a good deal more; which, indeed, proved to be the case, for at noon we found our latitude, by observation, to be 82° 14' 25", or four miles to the southward of the reckoning.

We halted at five A.M. on the 1st of August, the officers and men being quite knocked up, and having made by our account only two miles of southing over a road not less than five in length. As we came along we had seen some recent bear-tracks, and soon after discovered Bruin himself. Halting the boats and concealing the people behind them, we drew him almost within gun-shot; but, after making a great many traverses behind some hummocks, and even mounting one of them to examine us more narrowly, he set off and escaped—I must say, to our grievous disappointment; for we had already, by anticipation, consigned a tolerable portion of his flesh to our cooking kettle, over a fire of his own blubber.

In the course of our journey, on the 2d of August, we met with a quantity of snow, tinged, to the depth of several inches, with some red colouring matter, of which a portion was preserved in a bottle for future examination. This circumstance recalled to our recollection our having frequently before, in the course of this journey, remarked that the loaded sledges, in passing over hard snow, left upon it a light, rose-coloured tint, which, at the time, we attributed to the colouring matter being pressed out of the birch of which they were made. Today, however, we observed that the runners of the, boats, and even our own footsteps, exhibited the same appearance; and, on watching it more narrowly afterward, we found the same effect to be produced, in a greater or less degree, by heavy pressure, on almost all the ice over which we passed, though a magnifying glass could detect nothing to give it this tinge. Halting at seven A.M. on the 3d, after launching and hauling up the boats a great number of times, we had not only the comfort of drying all our wet clothes, but were even able to wash many of our woollen things, which dried in a few hours. The latitude observed at noon was 82° 1' 48", or twelve miles and a half, to the southward of our place on the 31st, which was about three more than our log gave, though there had been southing in the wind during the whole interval.

We proceeded on our journey southward at eight P.M., and were again favoured with a clear and beautiful night, though the travelling was as slow and laborious as ever, there being scarcely a tolerable floe lying in our road. The sun now became so much lower at night, that we were seldom annoyed by the glare from the snow. It was also a very comfortable change to those who had to look out for the road, to have the sun behind us instead of facing it, as on our outward journey. We stopped to rest at a quarter past six A.M. on the 4th, after accomplishing three miles in a south direction, over a troublesome road of nearly twice that length. It was almost calm, and to our feelings oppressively warm during the day, the thermometer within the boats rising as high as 66°, which put our fur dresses nearly "out of commission," though the mercury exposed to the sun outside did not rise above 39°. Pursuing our journey at eight P.M., we paid, as usual, for this comfort by the extreme softness of the snow. The upper crust would sometimes support a man's weight for a short time, and then suddenly let him down two or three feet, so that we could never make sure of our footing for two steps together. Several of the men were also suffering much at this time from chilblains, which, from the constant wet and cold, as well as the irritation in walking, became serious sores, keeping them quite lame. With many of our people, also, the epidermis or scarfskin peeled off in large flakes, not merely in the face and hands, which were exposed to the action of the sun and the weather, but in every other part of the body; this, however, was attended with no pain, nor with much inconvenience.

A fat bear crossed over a lane of water to visit us, and, approaching the boats within twenty yards, was killed by Lieutenant Ross. The scene which followed was laughable, even to us who participated in it. Before the animal had done biting the snow, one of the men was alongside of him with an open knife; and, being asked what he was about to do, replied that he was about cut out his heart and liver to put into the pot, which happened to be then boiling for our supper. In short, before the bear had been dead an hour, all hands of us were employed, to our great satisfaction, in discussing the merits, not only of the said heart and liver, but a pound per man of the flesh; besides which, some or other of the men were constantly frying steaks during the whole day, over a large fire made of the blubber. The consequence of all this, and other similar indulgences, necessarily was, that some of them complained, for several days after, of the pains usually arising from indigestion; though they all, amusingly enough, attributed this effect to the quality, and not the quantity of meat they had eaten. However, notwithstanding these excesses at first, we were really thankful for this additional supply of meat; for we had observed for some time past, that the men were evidently not so strong as before, and would be the better for more sustenance.

The rain continued so hard at our usual time of setting out, that I was obliged to delay doing so till six P.M. on the 8th, when it ceased a little, after falling hard for twenty-four hours, and less violently for twelve more. When we first launched the boats, our prospect of making progress

seemed no better than usual, but we found one small hole of water leading into another in so extraordinary a manner, that, though the space in which we were rowing seemed always to be coming to an end, we continued to creep through narrow passages, and, when we halted to dine at half an hour before midnight, had only hauled the boats up once, and had made, though by a winding channel, four or five miles of southing. This was so unusual a circumstance, that we could not help entertaining some hope of our being at no great distance from the open sea, which seemed the more probable from our having seen seven or eight narwhals, and not less than two hundred rotges, a flock of these little birds occurring in every hole of water. At noon on the 10th of August, we observed in latitude 81° 40' 13", which was only four miles to the northward of our reckoning from the last observation, although there had been almost constantly southing in the wind ever since, and it had been blowing strong from that quarter for the last thirty hours. This circumstance afforded a last and striking proof of the general tendency of the ice to drift southward, about the meridians on which we had been travelling. Another bear came towards the boats in the course of the day, and was killed. We were now so abundantly supplied with meat, that the men would again have eaten immoderately had we not interposed the necessary authority to prevent them. As it was, our encampment became so like an Esquimaux establishment, that we were obliged to shift our place upon the floe in the course of the day, for the sake of cleanliness and comfort.

The wind falling towards midnight, we launched the boats at half past one A.M. on the 11th, paddling alternately in large spaces of clear water and among streams of loose "sailing ice." We soon afterward observed such indications of an open sea as could not be mistaken, much of the ice being "washed" as by a heavy sea, with small rounded fragments thrown on the surface, and a good deal of "dirty ice" occurring. After passing through a good deal of loose ice, it became gradually more and more open, till at length, at a quarter before seven A.M., we heard the first sound of the swell under the hollow margins of the ice, and in a quarter of an hour had reached the open sea, which was dashing with heavy surges against the outer masses. We hauled the boats upon one of these, to eat our last meal upon the ice, and to complete the necessary supply of water for our little voyage to Table Island, from which we were now distant fifty miles, our latitude being 81° 34', and longitude 18-1/4° E. A light air springing up from the N.W., we again launched the boats, and at eight A.M. finally quitted the ice, after having taken up our abode upon it for forty-eight days.

We had some fog during the night, so that we steered entirely by compass, according to our last observations by the chronometers, which proved so correct, that, at five A.M. on the 12th, on the clearing up of the haze, we made the island right ahead. At eleven A.M. we reached the island, or rather the rock to the northward of it, where our provisions had been deposited; and I cannot describe the comfort we experienced in once more feeling a dry and solid footing. We found that the bears had devoured all the bread (one hundred pounds), which occasioned a remark among the men, with reference to the quantity of these animals' flesh that we had eaten, that "Bruin was only square with us." We also found that Lieutenant Crozier had been here since we left the island, bringing some materials for repairing our boats, as well as various little luxuries to which we had lately been strangers, and depositing in a copper cylinder a letter from Lieutenant Foster, giving me a detailed account of the proceedings of the ship up to the 23d of July. By this I learned that the Hecla had been forced on shore on the 7th of July, by the breaking-up of the ice at the head of the bay, which came down upon her in one solid mass; but, by the unwearied and zealous exertions of the officers and men, she had again been hove off without incurring the slightest damage, and placed in perfect security. Among the supplies with which the anxious care of our friends on board had now furnished us, some lemon-juice and sugar were not the least acceptable; two or three of the men having for some days past suffered from oedematous swellings of the legs, and evinced other symptoms apparently scorbutic, but which soon improved after administering this valuable specific.

Having got our stores into the boats, we rowed round Table Island to look for a place on which to rest, the men being much fatigued; but so rugged and inhospitable is this northern rock, that not a single spot could we find where the boats could possibly be hauled up, or lie afloat in security. I therefore determined to take advantage of the freshening of the N.E. wind, and to bear up for Walden Island, which we accordingly did at two P.M. We had scarcely made, sail when the weather became extremely inclement, with a fresh gale and very thick snow, which obscured Walden Island from our view. Steering by compass, however, we made a good landfall, the boats behaving well in a sea; and at seven P.M. landed in the smoothest place we could find under the lee of the island. Everything belonging to us was now completely drenched by the spray and snow; we had been fifty-six hours without rest, and forty-eight at work in the boats, so that, by the time they were unloaded, we had barely strength left to haul them up on the rock. We noticed, on this occasion, that the men had that wildness in their looks which usually accompanies excessive fatigue; and, though just as willing as ever to obey orders, they seemed at times not to comprehend them. However, by dint of great exertion, we managed to get the boats above the surf; after which, a hot supper, a blazing fire of driftwood, and a few hours' quiet rest, quite restored us.

The next morning, the 13th, I despatched Lieutenant Ross, with a party of hands, to the N.E. part of the island, to launch the spare boat, which, according to my directions, Lieutenant Foster had sent for our use, and to bring round the stores deposited there in readiness for our setting off for Low Island. They found everything quite undisturbed; but, by the time they reached us, the wind had backed to the westward, and the weather become very wet, so that I determined to remain here till it improved.

At ten A.M. on the 14th, the weather being fine, we launched our three boats and left Walden Island; but the wind backing more to the westward, we could only fetch into a bay on the opposite or southern shore, where we hauled the boats up on very rugged rocks, under cliffs about six hundred feet high, and of the same granite formation as Walden Island.

The wind dying away on the morning of the 17th, we once more set out for the ship at nine A.M.; but having a second time nearly reached Shoal Point, were again met by a strong breeze as we opened Waygatz Strait, and were therefore obliged to land upon the low shore to the southward of Low Island.

On the 18th of August the wind increased to a strong breeze from the S.W., with rain and sleet, which afterward changed to snow in some of the largest flakes I ever saw, completely changing the whole aspect of the land from summer to winter in a few hours. On the following morning we prepared to move at an early hour, but the wind backed more to the westward, and soon after increased to a gale, raising so much surf on the beach as to oblige us to haul the boats higher up. On the 20th, tired as we were of this tedious confinement, and anxious to reach the ship, the wind and sea were still too high to allow us to move, and it was not till half past seven A.M. on the following day that we could venture to launch the boats. Having now, by means of the driftwood, converted our paddles into oars, and being occasionally favoured by a light breeze, with a perfectly open sea, we made tolerable progress, and at half past four P.M. on the 21st of August, when within three or four miles of Hecla Cove, had the gratification of seeing a boat under sail coming out to meet us. Mr. Weir soon joined us in one of the cutters; and, after hearing good accounts of the safety of the ship, and of the welfare of all on board, together with a variety of details, to us of no small interest, we arrived on board at seven P.M., after an absence of sixty-one days, being received with that warm and cordial welcome which can alone be felt, and not described.

I cannot conclude the account of our proceedings without endeavouring to do justice to the cheerful alacrity and unwearied zeal displayed by my companions, both officers and men, in the course of this excursion; and if steady perseverance and active exertion on their parts could have accomplished our object, success would undoubtedly have crowned our labours. I must also mention, to the credit of the officers of Woolwich dock-yard, who took so much pains in the construction of our boats, that, notwithstanding the constant and severe trial to which their strength had been put—and a more severe trial could not well be devised—not a timber was sprung, a plank split, or the smallest injury sustained by them; they were, indeed, as tight and as fit for service when we reached the ship as when they were first received on board, and in every respect answered the intended purpose admirably.

On my arrival on board, I learned from Lieutenant Crozier that Lieutenant Foster, finding that no farther disturbance from ice was to be apprehended, and after making an accurate plan of the bay and its neighbourhood, had proceeded on the survey of Waygatz Strait, and proposed returning by the 26th of August, the day to which I had limited his absence. I found the ship quite ready for sea, with the exception of getting on board the launch, with the stores deposited by my direction on the beach. Lieutenant Foster's report informed me that, after the ship had been hauled off the ground, they had again suffered considerable disturbance for several days, in consequence of some heavy masses of ice driving into the bay, which dragged the anchors, and again threatened them with a similar accident. However, after the middle of July, no ice had entered the bay, and, what is still more remarkable, not a piece had been seen in the offing for some weeks past, even after hard northerly and westerly gales.

On the 22d of August, as soon as our people had enjoyed a good night's rest, we commenced bringing the stores on board from the beach, throwing out such a quantity of the stone ballast as was necessary for trimming the ship; after which the cables and hawsers were cast off from the shore, and the ship hauled off to single anchor. Lieutenant Foster returned on board on the 24th, having surveyed the greater part of the shores of the strait, as far to the southward as 79° 33".

Lieutenant Foster saw some seahorses (narwhals) and white whales in the course of this excursion, but no black whales; nor did we, in the whole course of the voyage, see any of these, except on the ground already frequented by our whalers on the western coast of Spitzbergen. It is remarkable, however, that the "crown-bones," and other parts of the skeleton of whales, are found in most parts where we landed on this coast. The shores of the strait, like all the rest in Spitzbergen, are lined with immense quantities of driftwood, wherever the nature of the coast will allow it to land.

The animals met with here during the Hecla's stay were principally reindeer, bears, foxes, kittiwakes, glaucus and ivory gulls, tern, eider-ducks, and a few grouse. Looms and rotges were numerous in the offing. Seventy reindeer were killed, chiefly very small, and, until the middle of August, not in good condition. They were usually met with in herds of from six or eight to twenty, and were most abundant on the west and north sides of the bay. Three bears were killed, one of which was somewhat above the ordinary dimensions, measuring eight feet four inches from the snout to the insertion of the tail. The vegetation was tolerably abundant, especially on the western side of the bay, where the soil is good; a considerable collection of plants, as well as minerals, was made by Mr. Halse, and of birds by Mr. M'Cormick.

The neighbourhood of this bay, like most of the northern shores of Spitzbergen, appears to have

been much visited by the Dutch at a very early period; of which circumstance records are furnished on almost every spot where we landed, by the numerous graves which we met with. There are thirty of these on a point of land on the north side of the bay.[023] The bodies are usually deposited in an oblong wooden coffin, which, on account of the difficulty of digging the ground, is not buried, but merely covered by large stones; and a board is generally placed near the head, having, either cut or painted upon it, the name of the deceased, with those of his ship and commander, and the month and year of his burial. Several of these were fifty or sixty years old; one bore the date of 1738; and another, which I found on the beach to the eastward of Hecla Cove, that of 1690; the inscription distinctly appearing in prominent relief, occasioned by the preservation of the wood by the paint, while the unpainted part had decayed around it.

The officers who remained on board the Hecla during the summer described the weather as the most beautiful, and the climate altogether the most agreeable, they had ever experienced in the Polar Regions. Indeed, the Meteorological Journal shows a temperature, both of the air and of the sea water, to which we had before been altogether strangers within the Arctic Circle, and which goes far towards showing that the climate of Spitzbergen is a remarkably temperate one for its latitude.[024] It must, however, be observed, that this remark is principally applicable to the weather experienced *near the land*, that at sea being rendered of a totally different character by the almost continual presence of fogs; so that some of our most gloomy days upon the ice were among the finest in Hecla Cove, where, however, a good deal of rain fell in the course of the summer.

The Hecla was ready for sea on the 25th of August; but the wind blowing fresh from the northward and westward prevented our moving till the evening of the 28th, when, the weather improving, we got under way from Hecla Cove, and, being favoured with a light air from the S.E., stood along the coast to the westward. On the evening of the 29th, when off Red Beach, we got on board our boat and other stores which had been left there, finding them undisturbed and in good order. The weather was beautifully fine, and the sun (to us for the first time for about four months) just dipped his lower limb into the sea at midnight, and then rose again. It was really wonderful to see that, upon this whole northern coast of Spitzbergen, where in May and June not a "hole" of clear water could be found, it would now have been equally difficult to discover a single mass of ice in any direction. This absence of ice now enabled us to see Moffen Island, which is so low and flat that it was before entirely hidden from our view by the hummocks. On rounding Hakluyt's Headland on the 30th, we came at once into a long swell, such as occurs only in places exposed to the whole range of the ocean, and, except a small or loose stream or two, we after this saw no more ice of any kind. On the 31st we were off Prince Charles's Foreland, the middle part of which, about Cape Sietoe, appeared to be much the highest land we had seen in Spitzbergen; rising probably to an elevation of above four thousand feet.

We had favourable winds to carry us clear of Spitzbergen; but after the 3d of September, and between the parallels of 70° and 60°, were detained by continual southerly and southwesterly breezes for a fortnight. On the evening of the 17th we made Shetland, and on the following day, being close off Balta Sound, and the wind blowing strong from the S.W., I anchored in the Voe at two P.M., to wait a more favourable breeze. We were here received by all that genuine hospitality for which the inhabitants of this northern part of the British dominions are so justly distinguished, and we gladly availed ourselves of the supplies with which their kindness furnished us.

Early on the morning of the 19th of September, the wind suddenly shifted to the N.N.W., and almost immediately blew so strong a gale that we could not safely cast the ship until the evening, when we got under way and proceeded to the southward; but had not proceeded farther than Fair Island, when, after a few hours' calm, we were once more met by a southerly wind. Against this we continued to beat till the morning of the 23d, when, finding that we made but little progress, and that there was no appearance of an alteration of wind, I determined to put into Long Hope, in the Orkney Islands, to await a change in our favour, and accordingly ran in and anchored there as soon as the tide would permit.

We found lying here his majesty's revenue cutter the Chichester; and Mr. Stuart, her commander, who was bound direct to Inverness, came on board as soon as we had anchored, to offer his services in any manner which might be useful. The wind died away in the course of the night of the 24th, and was succeeded on the following morning by a light air from the northward, when we immediately got under way; but had not entered the Pentland Firth, when it again fell calm and then backed to the southward, rendering it impossible to make any progress in that direction with a dull-sailing ship. I therefore determined on returning with the Hecla to the anchorage, and then taking advantage of Mr. Stuart's offer; and accordingly left the ship at eight A.M., accompanied by Mr. Beverly, to proceed to Inverness in the Chichester, and from thence by land to London, in order to lay before his royal highness the lord high admiral, without farther delay, an account of our proceedings. By the zealous exertions of Mr. Stuart, for which I feel greatly obliged to that gentleman, we arrived off Fort George the following morning, and, landing at Inverness at noon, immediately set off for London, and arrived at the Admiralty on the morning of the 29th of September.

Owing to the continuance of southerly winds, the Hecla did not arrive in the river Thames until the 6th of October, when I was sorry, though not surprised, to learn the death of Mr. George Crawford, the Greenland master, who departed this life on the 29th of September, sincerely lamented by all who knew him, as a zealous, active, and enterprising seaman, and an amiable and

deserving man. Mr. Crawford had accompanied us in five successive voyages to the Polar Seas, and I truly regret the occasion which demands from me this public testimony of the value of his services and the excellence of his character.

Having finished my Narrative of this Attempt to reach the North Pole, I may perhaps be permitted, in conclusion, to offer such remarks as have lately occurred to me on the nature and practicability of the enterprise.

That the object is of still more difficult attainment than was before supposed, even by those persons who were the best qualified to judge of it, will, I believe, appear evident from a perusal of the foregoing pages; nor can I, after much consideration and some experience of the various difficulties which belong to it, recommend any material improvement in the plan lately adopted. Among the various schemes suggested for this purpose, it has been proposed to set out from Spitzbergen, and to make a rapid journey to the northward with sledges or sledge-boats, drawn wholly by dogs or reindeer; but, however feasible this plan may at first sight appear, I cannot say that our late experience of the nature of the ice which they would probably have to encounter has been at all favourable to it. It would, of course, be a matter of extreme imprudence to set out on this enterprise without the means of crossing, not merely narrow pools and "lanes," but more extensive spaces of open water, such as we met with between the margin of the ice and the Spitzbergen shores; and I do not conceive that any boat sufficiently large to be efficient and safe for this purpose could possibly be managed upon the ice, were the power employed to give it motion dependant on dogs or reindeer. On the contrary, it was a frequent subject of remark among the officers, that reason was a qualification scarcely less indispensable than strength and activity in travelling over such a road; daily instances occurring of our having to pass over difficult places, which no other animal than man could have been easily prevailed upon to attempt. Indeed, the constant necessity of launching and hauling up the boats (which operations we had frequently to perform eight or ten, and, on one occasion, seventeen times in the same day) would alone render it inexpedient, in my opinion, to depend chiefly upon animals; for it would certainly require more time and labour to get them into and out of the boats, than their services in the intervals, or their flesh ultimately used as food, would be worth; especially when it is considered how large a weight of provender must be carried for their own subsistence.[025]

In case of employing reindeer, which, from their strength, docility, and hardy habits, appear the best suited to this kind of travelling, there would be an evident advantage in setting out much earlier in the year than we did; perhaps about the end of April, when the ice is less broken up, and the snow much harder upon its surface than at a more advanced part of the season. But this, it must be recollected, would involve the necessity of passing the previous winter on the northern coast of Spitzbergen, which, even under favourable circumstances, would probably tend to weaken in some degree the energies of the men; while, on the other hand, it would be next to impossible to procure there a supply of provender for a number of tame reindeer, sufficient even to keep them alive, much less in tolerable condition, during a whole winter. In addition to this, it may be observed, that any party setting out earlier must be provided with a much greater weight of warm clothing in order to guard against the severity of cold, and also with an increased proportion of fuel for procuring water by the melting of snow, there being no fresh water upon the ice in these latitudes before the month of June.

In the kind of provisions proper to be employed in such enterprises—a very important consideration, where almost the whole difficulty may be said to resolve itself into a question of weight—I am not aware that any improvement could be made upon that with which we were furnished; for I know of none which appears to contain so much nutriment in so small a weight and compass. It may be useful, however, to remark, as the result of absolute experience, that our daily allowance of provisions,[026] although previously tried for some days on board the ship, and then considered to be enough, proved by no means sufficient to support the strength of men living constantly in the open air, exposed to wet and cold for at least twelve hours a day, seldom enjoying the luxury of a warm meal, and having to perform the kind of labour to which our people were subject. I have before remarked, that, previously to our return to the ship, our strength was considerably impaired; and, indeed, there is reason to believe that, very soon after entering upon the ice, the physical energies of the men were gradually diminishing, although, for the first few weeks, they did not appear to labour under any specific complaint. This diminution of strength, which we considered to be principally owing to the want of sufficient sustenance, became apparent, even after a fortnight, in the lifting of the bread-bags and other heavy weights; and I have no doubt that, in spite of every care on the part of the officers, as well as Mr. Beverly's skilful and humane attention to their ailments, some of the men, who had begun to fail before we quitted the ice, would, in a week or two longer, have suffered very severely, and become a serious encumbrance, instead of an assistance, to our party. As far as we were able to judge, without farther trial, Mr. Beverly and myself were of opinion that, in order to maintain the strength of men thus employed for several weeks together, an addition would be requisite of at least one third more to the provisions which we daily issued. I need scarcely remark how much this would increase the difficulty of equipping such an expedition.

I cannot dismiss the subject of this enterprise without attempting to explain, as far as I am able, how it may have happened that the ice over which we passed was found to answer so little to the description of that observed by the respectable authorities quoted in a former part of this

volume.[027] It frequently occurred to us, in the course of our daily journeys, that this may, in some degree, have arisen from our navigators' having generally viewed the ice from a considerable height. The only clear and commanding view on board a ship is that from the crow's-nest; and Phipps's most important remarks concerning the nature of the ice to the north of Spitzbergen were made from a station several hundred feet above the sea; and, as it is well known how much the most experienced eye may thus be deceived, it is possible enough that the irregularities which cost us so much time and labour may, when viewed in this manner, have entirely escaped notice, and the whole surface have appeared one smooth and level plain.

It is, moreover, possible, that the broken state in which we unexpectedly found the ice may have arisen, at least in part, from an unusually wet season, preceded, perhaps, by a winter of less than ordinary severity. Of the latter we have no means of judging, there being no record, that I am aware of, of the temperature of that or any other winter passed in the higher latitudes; but, on comparing our Meteorological Register with some others kept during the corresponding season and about the same latitude,[028] it does appear that, though no material difference is observable in the mean temperature of the atmosphere, the quantity of rain which we experienced is considerably greater than usual; and it is well known how very rapidly ice is dissolved by a fall of rain. At all events, from whatever cause it may have arisen, it is certain that, about the meridian on which we proceeded northward in the boats, the sea was in a totally different state from what Phipps experienced, as may be seen from comparing our accounts—his ship being closely beset, near the Seven Islands, for several days about the beginning of August; whereas the Hecla, in the beginning of June, sailed about in the same neighbourhood without obstruction, and, before the close of July, not a piece of ice could be seen from Little Table Island.

I may add, in conclusion, that, before the middle of August, when we left the ice in our boats, a ship might have sailed to the latitude, of 82° almost without touching a piece of ice; and it was the general opinion among us, that, by the end of that month, it would probably have been no very difficult matter to reach the parallel of 83°, about the meridian of the Seven Islands.

THE END.

FOOTNOTES

[001]

This name being applied by the Esquimaux to several other portions of land, all of which are insular, or nearly so, it is probable that the word simply signifies an island.

[002]

The expression "fixed ice" appearing better suited to our present obstacle than that of "land ice," I shall in future adopt it in speaking of this barrier.

[003]

Lest it should be thought that this account is exaggerated, I may here state, that, as a matter of curiosity, we one day tried how much a lad, scarcely full grown, would, if freely supplied, consume in this way. The under-mentioned articles were weighed before being given to him; he was twenty hours in getting through them, and certainly did not consider the quantity extraordinary.

	lb.	oz.
Seahorse flesh, hard frozen	4	4
Ditto, boiled	4	4
Bread and bread-dust	1	12
Total of solids	10	4
The Fluids were in fair proportion, viz.:		
Rich gravy-soup	1-1/4 pint.	
Raw spirits	3 wine glasses.	
Strong grog.	1 tumbler.	
Water	1 gallon 1 pint.	

[004]

We have since heard that these ships were the Dexterity, of Leith, and the Aurora, of Hull, which were wrecked on the 28th of August, 1821, about the latitude of 72°.

[005]

A fine lad, of about sixteen, being one day out in a boat with one of our gentlemen at Arlagnuk, reminded him, with a serious face, that he had laid a gun down *full-cocked*. There happened to be no charge in the gun at the time; but this was a proof of the

attention the boy had paid to the art of using firearms, as well as an instance of considerate and manly caution, scarcely to have been expected in an individual of that age.

[006]

Most Greenland sailors use these; but many persons, both officers and men, have an absurd prejudice against what they call "wearing stays."

[007]

It is remarkable that this poor man had, twice before, within the space of nine months, been very near death; for, besides the accident already mentioned, of falling down the hill when escaping from the bear, he was also in imminent danger of dying of dropsy during the winter.

[008]

This birch, they said, had been procured from the southward by way of *Noowook*. We never met with any of the same kind in those parts of the country which we visited, except that observed by Captain Lyon in the deserted habitations of the Esquimaux near Five Hawser Bay.

[009]

Toolooak, who was a frequent visitor at the young gentlemen's mess-table on board the Fury, once evinced this taste, and no small cunning at the same time, by asking alternately for a little more bread and a little more butter, till he had made a hearty meal.

[010]

Cervical, 7; dorsal, 13; lumbar, 7; sacral, 3; caudal, 19.

[011]

Cartwright's *Labrador*, iii., 232.

[012]

Ledyard. *Proceedings of the African Association*, vol i, p. 30.

[013]

The first travelling boat, which was built by way of experiment, was planked differently from these two; the planks, which were of half-inch oak, being ingeniously "tongued" together with copper, in order to save the necessity of caulking in case of the wood shrinking. This was the boat subsequently landed on Red Beach.

[014]

This article of our equipment contains a large proportion of nutriment in a small weight and compass, and is therefore invaluable on such occasions. The process, which requires great attention, consists in drying large thin slices of the lean of the meat over the smoke of wood-fires, then pounding it, and lastly mixing it with about an equal weight of its own fat. In this state it is quite ready for use, without farther cooking.

[015]

The merits of this simple but valuable invention being now too well known to require any detailed account of the experiments, it is only necessary for me to remark, in this place, that the compass, having the plate attached to it, gave, under all circumstances, the correct magnetic bearing.

[016]

It is remarkable, that the Esquimaux word for boot is very like this—Kameega.

[017]

I find it to be the universal opinion among the most experienced of our whalers, that there is much less ice met with, of late years, in getting to the northward, in these latitudes, than formerly was the case. Mr. Scoresby, to whose very valuable local information, contained in his "Account of the Arctic Regions," I have been greatly indebted on this occasion, mentions the circumstance as a generally received fact.

[018]

It was probably some such gale as this which has given to Hakluyt's Headland, in an old Dutch chart, the appellation of "Duyvel's Hoek."

[019]

I have been thus particular in noticing the Hecla's position, because our observations would appear to be, with one exception, the most northern on record at that time. The Commissioners of Longitude, in their memorial to the king in council, in the year 1821, consider that the "progress of discovery has not arrived northward, according to any well-authenticated accounts, so far as eighty-one degrees of north latitude." Mr. Scoresby states his having observed in lat. 81° 12' 42".

[020]

Had we succeeded in reaching the higher latitudes, where the change of the sun's altitude during the twenty-four hours is still less perceptible, it would have been essentially necessary to possess the certain means of knowing this; since an error of twelve hours of time would have carried us, when we intended to return, on a meridian opposite to, or 180° from, the right one. To obviate the possibility of this, we had some chronometers constructed by Messrs. Parkinson and Frodsham, of which the hour-hand made only one revolution in the day, the twenty-four hours being marked round the dial-plate.

[021]

I may here mention, that, notwithstanding the heavy blows which the boats were constantly receiving, all our nautical and astronomical instruments were taken back to the ship without injury. This circumstance makes it, perhaps, worth while to explain, that they were lashed upon a wooden platform in the after locker of each boat, sufficiently small to be clear of the boat's sides, and playing on strong springs of whalebone, which entirely obviated the effects of the severe concussions to which they would otherwise have been subject.

[022]

We found the best preservative against this glare to be a pair of spectacles, having the glass of a bluish-green colour, and with side-screens to them.

[023]

Perhaps the name of this bay, from the Dutch word *Treuren*, "to lament, or be mournful," may have some reference to the graves found here.

[024]

Mr. Crowe, of Hammerfest, who lately passed a winter on the southwestern coast of Spitzbergen, in about latitude 78°, informed me that he had *rain at Christmas*; a phenomenon which would indeed have astonished us at any of our former wintering stations in a much lower latitude. Perhaps the circumstance of the reindeer wintering at Spitzbergen may also be considered a proof of a comparatively temperate climate.

[025]

See p. 254 of this volume.

[026]

See p. 280 of this volume.

[027]

See Introduction.

[028]

Particularly that of Mr. Scoresby during the month of July, from 1812 to 1818 inclusive, and Captain Franklin's for July and August, 1818.

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