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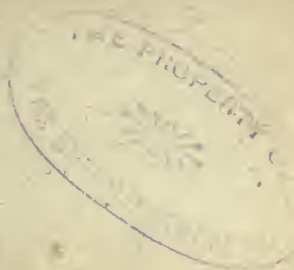
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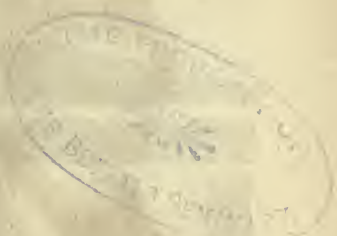
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CAPT. W. PARRY, R.N.

NEW YORK
HARPER & BROTHERS
1840.

THREE VOYAGES



FOR THE

DISCOVERY OF A NORTHWEST PASSAGE

990

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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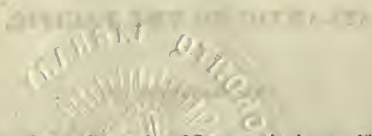
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PUBLISHERS' AVDERTISEMENT.

THE two volumes herewith presented to the public contain an uninterrupted narrative, in Captain Parry's own words, of the five voyages made by that distinguished navigator, under the sanction of the British government, in search of a passage from the eastern to the western side of the American Continent, through the Arctic Ocean. Although abbreviated, the curtailment has been effected, not by any change in the language of the original writer, but merely by omitting all such details as were not inviting to the general reader; and, in a word, changing the character of the work from that of an official report to that of a narrative. The effort has been to preserve all interesting and amusing particulars; to record all facts and transactions of importance; to present an accurate though brief notice of all valuable accessions to geographic as well as general knowledge, effected in the progress of the voyages; and, at the same time,

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to keep the reader's attention ever on the alert by the rapid and uninterrupted succession of striking incidents.

It is hoped that the aim here designated has been accomplished ; and that, in the abridged narrative of Parry's Voyages, there will be found matter, not only to interest the reader for amusement, but also to improve. The scenes and adventures recorded by the navigator are in the highest degree novel and remarkable ; and it cannot be other than profitable to know what perils were encountered, what courage, firmness, and ingenuity were displayed, what moral and physical influences were developed, and what triumphs of human skill were achieved, in the progress of voyages undertaken solely to advance the interests of science.

H. & B.

New-York, May, 1840.

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TECHNICAL TERMS

PECULIAR TO THE NAVIGATION AMONG ICE

- BAY-ICE.**—Ice newly formed upon the surface of the sea. The expression is, however, applied also to ice a foot or two in thickness.
- BESET.**—The situation of a ship when closely surrounded by ice.
- BIGHT.**—An indentation in a floe of ice, like a bay, by which name it is sometimes called.
- BLINK.**—A peculiar brightness in the atmosphere, often assuming an arch-like form, which is generally perceptible over ice or land covered with snow. The blink of land, as well as that over *large* quantities of ice, is usually of a yellowish cast.
- BORE.**—The operation of “boring” through loose ice consists in entering it under a press of sail, and forcing the ship through by separating the masses.
- CALF.**—A mass of ice lying under a floe near its margin, and, when disengaged from that position, rising with violence to the surface of the water. See **TONGUE**.
- CLEAR WATER.**—Any part of the sea unencumbered with ice.
- CROW'S NEST.**—A small circular house like a cask, fixed at the masthead, in which the look-out man sits, either to guide the ship through the ice or to give notice of whales.
- DOCK.**—In a floe may be natural or artificial; the former being simply a small “bight,” in which a ship is placed to secure her from the danger of external pressure; and the latter, a square space cut out with saws for a similar purpose.
- FIELD.**—A sheet of ice generally of great thickness, and of too great extent to be seen over from a ship's masthead.
- FLINCHING.**—The operation of stripping a sea-animal of its skin and blubber.
- FLOE.**—The same as a field, except that its extent can be distinguished from a ship's masthead. A “bay-floe” is a floe of ice newly formed.
- FLOE-PIECE.**—An expression generally applied to small pieces of floes, not more than a furlong square.
- A HOLE OR POOL of Water.**—A small space of “clear water,” when the rest of the sea is covered with ice.
- HUMMOCK.**—A mass of ice rising to a considerable height above

the general level of a floe, and forming a part of it. Hummocks are originally raised by the pressure of floes against each other.

LAND-ICE.—Ice attached to the land, either in floes or in heavy grounded masses lying near the shore.

LANE of Water.—A narrow channel among the masses of ice, through which a boat or ship may pass.

LEAD.—A channel through the ice. A ship is said to "take the right lead" when she follows a channel conducting her into a more navigable sea, and *vice versa*.

MAKING-OFF Blubber.—The operation of putting it into casks.

NIPPED.—The situation of a ship when forcibly pressed by ice.

PACK.—A large body of ice, consisting of separate masses, lying close together, and whose extent cannot be seen.

PANCAKE-ICE.—Newly formed ice, assuming the peculiar conformation of numberless patches of "sludge," and giving the surface of the sea the appearance of a handsome pavement.

PATCH of Ice.—The same as a pack, but of small dimensions.

SAILING-ICE.—Ice of which the masses are so much separated as to allow a ship to sail among them.

SALLYING a Ship.—The operation of causing her to roll, by the men running in a body from side to side, so as to relieve her from the adhesion and friction of the young ice around her.

SLUDGE.—Ice of the consistence of thick honey, offering little impediment to a ship while in this state, but greatly favouring the formation of a "bay-floe."

STREAM.—A long and narrow, but generally continuous, collection of loose ice.

TONGUE.—A mass of ice projecting under water from an iceberg or floe, and generally distinguishable at a considerable depth of smooth water. It differs from a "calf" in being fixed to, or a part of, the larger body.

WATER-SKY.—A dark appearance in the sky, indicating "clear water" in that direction, and forming a striking contrast with the "blink" over land or ice.

YOUNG-ICE.—Nearly the same as "bay-ice," but generally applied to ice more recently formed than the latter.

VOYAGE
FOR THE DISCOVERY OF A
NORTHWEST PASSAGE.

INTRODUCTION.

LIEUTENANT PARRY was appointed to the command of his majesty's ship the Hecla, a bomb of 375 tons, on the 16th of January, 1819; and the Griper, gun brig, 180 tons, commissioned by Lieutenant Matthew Liddon, was at the same time directed to put herself under his orders. The object of the expedition was to attempt the discovery of a Northwest Passage into the Pacific. The vessels were rigged after the manner of a bark, as being the most convenient among the ice, and requiring the smallest number of men to work them. They were furnished with provisions and stores for two years; in addition to which, there was a large supply of fresh meats and soups preserved in tin cases, essence of malt and hops, essence of spruce, and other extra stores, adapted to cold climates and a long voyage. The ships were ballasted entirely with coals; an abundance of warm clothing was allowed, a wolfskin blanket being supplied to each officer and man, besides a housing-cloth, similar to that with which wagons are usually covered, to make

a sort of tent on board. Although the finding a passage from the Atlantic to the Pacific was the main object of the expedition, yet the ascertaining many points of natural history, geography, &c., was considered a most important object, never to be lost sight of. After they had passed the latitude of 65° north, they were from time to time to throw overboard a bottle, closely sealed, containing a paper, stating the date and position at which it was launched. Whenever they landed on the northern coast of North America, they were to erect a pole, having a flag, and bury a bottle at the foot of it, containing an abstract of their proceedings and future intentions, for the information of Lieutenant Franklin, who had been sent on a land expedition to explore that coast from the mouth of the Coppermine River of Hearne.

According to the official instructions, the interests of science were not neglected, and many important facts were made out; among the most curious, it may be mentioned, that it appears to be proved that the North Pole is not the coldest point of the Arctic hemisphere, but that the place where the expedition wintered is one of the coldest spots on the face of the globe.

CHAPTER I.

Passage across the Atlantic.—Enter Davis's Strait.—Unsuccessful Attempt to penetrate the Ice to the Western Coast.—Voyage up the Strait.—Passage through the Ice to the Western Coast.—Arrival off Possession Bay, on the southern side of the entrance into Sir James Lancaster's Sound.

IN the beginning of May, 1819, the *Hecla* and *Griper* were towed down the river; the guns and gunner's stores were received on board on the 6th; and the instruments and chronometers were embarked on the evening of the 8th, when the two ships anchored at the Nore. The *Griper*, being a slower sailer, was occasionally taken in tow by the *Hecla*, and they rounded the northern point of the Orkneys, at the distance of two miles and a half, on Thursday, the 20th of the same month.

Nothing of moment occurred for several days; but the wind veered to the westward on the 30th, and increased to a fresh gale, with an irregular sea and heavy rain, which brought us under our close-reefed topsails. At half past one, P.M., we began to cross the space in which the "Sunken Land of Buss" is laid down in Steel's chart from England to Greenland; and, in the course of this and the following day, we tried for soundings several times without success.

Early in the morning of the 18th of June, in standing to the northward, we fell in with the first "stream" of ice we had seen, and soon after saw

several icebergs. At daylight the water had changed its colour to a dirty brownish tinge. The temperature of the water was $36\frac{1}{2}$, being 3° colder than on the preceding night; a decrease that was probably occasioned by our approach to the ice. We ran through a narrow part of the stream, and found the ice beyond it to be "packed" and heavy. The birds were more numerous than usual; and, besides the fulmar peterels, boatswains, and kittiwakes, we saw, for the first time, some rotges, dovebies, or black guillemots, and terns, the latter known best to seamen by the name of the Greenland swallow. :

On the clearing up of a fog on the morning of the 24th, we saw a long chain of icebergs, extending several miles in a N.b.W. and S.b.E. direction; and, as we approached them, we found a quantity of "floe-ice" intermixed with them, beyond which, to the westward, nothing but ice could be seen. At noon we had soundings, with one hundred and twenty fathoms of line, on a bottom of fine sand, which makes it probable that most of the icebergs were aground in this place. In the afternoon we sailed within the edge of the ice, as much as a light westerly wind would admit, in order to approach the western land. Some curious effects of atmospheric refraction were observed this evening, the low ice being at times considerably raised in the horizon, and constantly altering its appearance.

The weather being nearly calm on the morning of the 25th, all the boats were kept ahead, to tow the ships through the ice to the westward. It remained tolerably open till four P.M., when a breeze,

freshening up from the eastward, caused the ice, through which we had lately been towing, to close together so rapidly, that we had scarcely time to hoist up the boats before the ships were immovably "beset." The clear sea which we had left was about four miles to the eastward of us, while to the westward nothing but one extensive field of ice could be seen. It is impossible to conceive a more helpless situation than that of a ship thus beset, when all the power that can be applied will not alter the direction of her head a single degree of the compass.

A large black whale, being the first, was seen near the ships. It is usual for these animals to descend head foremost, displaying the broad fork of their enormous tail above the surface of the water; but, on this occasion, the ice was so close as not to admit of this mode of descent, and the fish went down tail foremost, to the great amusement of our Greenland sailors.

While in this state a large white bear came near the Griper, and was killed by her people, but he sunk between the pieces of ice. This animal had probably been attracted by the smell of some red herrings which the men were frying at the time. It is a common practice with the Greenland sailors to take advantage of the strong sense of smelling which these creatures possess, by enticing them near the ships in this manner.

The swell had somewhat subsided on the 29th, but the ships remained firmly fixed in the ice as before. In the course of the day we saw land bearing N. 69° W. about thirteen leagues distant, appearing from the masthead like a group of isl.

ands, and situated near to the entrance of Cumberland Strait: the soundings were one hundred and thirty-five fathoms; the temperature of the sea at that depth 30° ; that of the surface being the same, and of the air 34° . On the 30th the ice began to slacken a little more about the ships; and, after two hours' heaving with a hawser on each bow brought to the capstan and windlass, we succeeded in moving the Hecla about her own length to the eastward, where alone any clear sea was visible. The ice continuing to open still more in the course of the day, we were at length enabled to get both ships into open water, after eight hours' incessant labour.

On the 1st and 2d of July, we continued to keep close to the edge of the ice without perceiving any opening in it. Its outer margin consisted of heavy detached masses, much washed by the sea, and formed what is technically called "a pack," this name being given to ice when so closely connected as not to admit the passage of a ship between the masses. Within the margin of the pack, it appeared to consist of heavy and extensive floes, having a bright ice-blink over them; but no clear water could be discovered to the westward. The birds, which had hitherto been seen since our first approach to the ice, were fulmar peterels, little auks, looms, and a few gulls.

On the morning of the 3d the wind blew strong from the eastward, with a short, breaking sea, and thick, rainy weather, which made our situation for some hours rather an unpleasant one, the ice being close under our lee. Fortunately, however, we weathered it by stretching back a few miles to the

southward. In the afternoon the wind moderated, and we tacked again to the northward, crossing the Arctic circle at four P.M., in the longitude of $57^{\circ} 27' W$. We passed at least fifty icebergs in the course of the day, many of them of large dimensions. Towards midnight, the wind having shifted to the southwest and moderated, another extensive chain of very large icebergs appeared to the northward: as we approached them the wind died away, and the ships' heads were kept to the northward, only by the steerage way given to them by a heavy southerly swell, which, dashing the loose ice with tremendous force against the bergs, sometimes raised a white spray over the latter to the height of more than one hundred feet, and, being accompanied with a loud noise, exactly resembling the roar of distant thunder, presented a scene at once sublime and terrific. We could find no bottom near these icebergs with one hundred and ten fathoms of line.

At four A.M. on the 4th we came to a quantity of loose ice, which lay straggling among the bergs; and as there was a light breeze from the southward, and I was anxious to avoid, if possible, the necessity of going to the eastward, I pushed the Hecla into the ice, in the hope of being able to make our way through it. We had scarcely done so, however, before it fell calm; when the ship became perfectly unmanageable, and was for some time at the mercy of the swell, which drifted us fast towards the bergs. All the boats were immediately sent ahead to tow; and the Griper's signal was made not to enter the ice. After two hours' hard pulling, we succeeded in getting the Hecla back

again into clear water, and to a sufficient distance from the icebergs, which it is very dangerous to approach when there is a swell. At noon we were in lat. $69^{\circ} 50' 47''$, long. $57^{\circ} 07' 56''$, being near the middle of the narrowest part of Davis's Strait, which is here not more than fifty leagues across.

On the 5th it was necessary to pass through some heavy streams of ice, in order to avoid the loss of time by going round to the eastward. On this, as on many other occasions, the advantage possessed by a ship of considerable weight in the water, in separating the heavy masses of ice, was very apparent. In some of the streams through which the Hecla passed, a vessel of a hundred tons less burden must have been immovably beset. The Griper was on this and many other occasions only enabled to follow the Hecla by taking advantage of the openings made by the latter.

A herd of seahorses being seen lying on a piece of ice, our boat succeeded in killing one of them. These animals usually lie huddled together like pigs, one over the other, and are so stupidly tame as to allow a boat to approach them within a few yards without moving. When at length they are disturbed, they dash into the water in great confusion. It may be worth remarking, as a proof how tenacious the walrus sometimes is of life, that the animal killed to-day struggled violently for ten minutes after it was struck, and towed the boat twenty or thirty yards, after which the iron of the harpoon broke; and yet it was found, on examination, that the iron barb had penetrated both auricles of the heart. A quantity of the blubber was put into casks, as a winter's supply of lamp-oil.

A large bear being seen on a piece of ice, near which we were passing on the 10th, a boat was despatched in pursuit, and our people succeeded in killing and towing it on board. As these animals sink immediately on being mortally wounded, some dexterity is requisite to secure them, by first throwing a rope over the neck, at which many of the Greenland seamen are remarkably expert. It is customary for the boats of the whalers to have two or three lines coiled in them, which not only gives them great stability, but, with good management, makes it difficult for a bear, when swimming, to put his paw upon the gunwale, which they generally endeavour to do; whereas, with our boats, which are more light and crank, and therefore very easily heeled over, I have more than once seen a bear on the point of taking possession of them. Great caution should therefore be used under such circumstances in attacking these ferocious creatures. We have always found a boarding-pike the most useful weapon for this purpose. The lance used by the whalers will not easily penetrate the skin, and a musket-ball, except when very close, is scarcely more efficacious.

On the 17th, the margin of the ice appearing more open than we had yet seen it, and there being some appearance of a "water-sky" to the northwest, I was induced to run the ships into the ice, though the weather was too thick to allow us to see more than a mile or two in that direction. We were, at noon, in latitude $72^{\circ} 00' 21''$, longitude $59^{\circ} 43' 04''$, the depth of water being one hundred and ninety fathoms, on a muddy bottom. The wind shortly after died away, as usual, and, after ma-

king a number tacks, in order to gain all we could to the westward, we found ourselves so closely hemmed in by the ice on every side, that there was no longer room to work the ships, and we therefore made them fast to a floe till the weather should clear up. The afternoon was employed in taking on board a supply of water from the floe. It may be proper at once to remark that, from this time till the end of the voyage, snow-water was exclusively made use of on board the ships for every purpose. During the summer months, it is found in abundance in the pools upon the floes and icebergs; and in the winter, snow was dissolved in the coppers for our daily consumption. The fog cleared away in the evening, when we perceived that no farther progress could be made through the ice, into which we sailed to the westward about twelve miles. We were therefore once more under the necessity of returning to the eastward, lest a change of wind should beset the ships in their present situation.

A thick fog came on again at night, and prevailed till near noon on the 18th, when we came to a close but narrow stream of ice, lying exactly across our course, and at right angles to the main body of the ice. As this stream extended to the eastward as far as we could see from the "crow's nest," an endeavour was made to push the ships with all sail through the narrowest part. The facility with which this operation, technically called "boring," is performed, depends chiefly on having a fresh and free wind, with which we were not favoured on this occasion; so that, when we had forced the ships about one hundred yards into the ice, their

way was completely stopped. The stream consisted of such small pieces of ice, that, when an attempt was made to warp the ships ahead by fastening lines to some of the heaviest masses near them, the ice itself came home, without the ships being moved forward. Every effort to extricate them from this helpless situation proved fruitless for more than two hours, when the Hecla was at length backed out, and succeeded in pushing through another part of the stream in which a small opening appeared just at that moment. All our boats were immediately despatched to the assistance of the Griper, which still remained beset, and which no effort could move in any direction. We at length resorted to the expedient of sending a whale-line to her from the Hecla, and then, making all sail upon the latter ship, we succeeded in towing her out, head to wind, till she was enabled to proceed in clear water. The crossing of this stream of ice, of which the breadth scarcely exceeded three hundred yards, occupied us constantly for more than five hours, and may serve as an example of the detention to which ships are liable in this kind of navigation.

Early on the morning of the 21st the fog cleared away, and discovered to us the land called by Davis, Hope Sanderson and the Woman's Islands, being the first land we had seen in sailing northward into Baffin's Bay, from the lat. of $63\frac{3}{4}^{\circ}$. We found ourselves in the midst of a great number of very high icebergs, of which I counted, from the crow's nest, eighty-eight, besides many smaller ones.

Having now reached the latitude of 73° without

seeing a single opening in the ice, and being unwilling to increase our distance from Sir James Lancaster's Sound by proceeding much farther to the northward, I determined once more to enter the ice in this place, and to try the experiment of forcing our way through it, in order to get into the open sea. Being therefore favoured with clear weather, and a moderate breeze from the south-eastward, we ran into the ice, which for the first two miles consisted of detached pieces, but afterward of floes of considerable extent, and six or seven feet in thickness. The wind died away towards midnight, and the weather was serene and clear.

At six A.M. on the 23d, a thick fog came on, which rendered it impossible to see our way any farther. We therefore warped to an iceberg, to which the ships were made fast at noon, to wait the clearing up of the fog, being in lat. $73^{\circ} 04' 10''$, long. $60^{\circ} 11' 30''$. At eight P.M. the weather cleared up, and a few small pools of open water were seen here and there, but the ice was generally as close as before, and the wind being to the westward of north, it was not deemed advisable to move.

The weather being clear in the morning of the 25th, and a few narrow lanes of water appearing to the westward, the Griper was made fast astern of the Hecla; and her crew being sent to assist in manning our capstan, we proceeded to warp the ships through the ice. This method, which is often adopted by our whalers, has the obvious advantage of applying the whole united force in separating the masses of ice which lie in the way of

the first ship, allowing the second, or even third, to follow close astern, with very little obstruction. In this manner we had advanced about four miles to the westward by eight P.M., after eleven hours of very laborious exertion; and having then come to the end of the clear water, and the weather being again foggy, the ships were secured in a deep "bight," or bay in a floe, called by the sailors a "natural dock."

Early on the morning of the 26th there was clear water as far as we could see to the westward, which, on account of the fog, did not exceed the distance of three hundred yards. We made sail, however, and having groped our way for about half a mile, found the ice once more close in every direction except that in which we had been sailing, obliging us to make the ships fast to a floe. At half past three P.M. the weather cleared up, and a few narrow lanes of water being seen to the westward, every exertion was immediately made to get into them. On beginning to heave, however, we found that the "hole" of water in which the Hecla lay was now so completely enclosed by ice that no passage out of it could be found. We tried every corner, but to no purpose; all the power we could apply being insufficient to move the heavy masses of ice which had fixed themselves firmly between us and the lanes of water without. In the mean time, Lieutenant Liddon had succeeded in advancing about three hundred yards, and had placed the Griper's bow between two heavy floes, which it was necessary to separate before any farther progress could be made. Both ships continued to heave at their hawsers occasionally, as

the ice appeared to slacken a little, by which means they were now and then drawn ahead a few inches at a time, but did not advance more than half a dozen yards in the course of the night. By our nearing several bergs to the northward, the ice appeared to be drifting in that direction, the wind being moderate from the southward.

About three A.M., Tuesday, 27th, by a sudden motion of the ice, we succeeded in getting the *Hecla* out of her confined situation, and ran her up astern of the *Griper*. The clear water had made so much to the westward, that a narrow neck of ice was all that was now interposed between the ships and a large open space in that quarter. Both ships' companies were therefore ordered upon the ice to saw off the neck, when the floes suddenly opened sufficiently to allow the *Griper* to push through under all sail. No time was lost in the attempt to get the *Hecla* through after her; but, by one of those accidents to which this navigation is liable, and which render it so precarious and uncertain, a piece of loose ice, which lay between the two ships, was drawn after the *Griper* by the eddy produced by her motion, and completely blocked the narrow passage through which we were about to follow. Before we could remove this obstruction by hauling it back out of the channel, the floes were again pressed together, wedging it firmly and immovably between them: the saws were immediately set to work, and used with great effect; but it was not till eleven o'clock that we succeeded, after seven hours' labour, in getting the *Hecla* into the lanes of clear water which opened more and more to the westward.

On the 29th we had so much clear water, that the ships had a very perceptible pitching motion, which, from the closeness of the ice, does not very often occur in the Polar regions, and which is therefore hailed with pleasure as an indication of an open sea. At five P.M. the swell increased considerably, and, as the wind freshened up from the northeast, the ice gradually disappeared; so that by six o'clock we were sailing in an open sea, perfectly free from obstruction of any kind.

We now seemed all at once to have got into the headquarters of the whales. They were so numerous that I directed the number to be counted during each watch, and no less than eighty-two are mentioned in this day's log. Mr. Allison, the Greenland master, considered them generally as large ones, and remarked that a fleet of whalers might easily have obtained a cargo here in a few days. In the afternoon the wind broke us off from the N.N.W., which obliged us to cast off the Griper, and we carried all sail ahead to make the land. We saw it at half past five P.M., being the high land about Possession Bay, and at the same time several streams of loose but heavy ice came in sight, which a fresh breeze was drifting fast to the southeastward.

The wind increased to a fresh breeze on the morning of the 31st, which prevented our making much way to the westward. We stood in towards Cape Byam Martin, and sounded in eighty fathoms on a rocky bottom, at the distance of two miles in an east direction from it. We soon after discovered the flagstaff which had been erected on Possession Mount on the former expedition; an object

which, though insignificant in itself, called up every person immediately on deck to look at and to greet it as an old acquaintance.

The land immediately at the back of Possession Bay rises in a gentle slope from the sea, presenting an open and extensive space of low ground, flanked by hills to the north and south. In this valley, and even on the hills, to the height of six or seven hundred feet above the sea, there was scarcely any snow, but the mountains at the back were completely covered with it. Some pieces of birch-bark having been picked up in the bed of this stream in 1818, which gave reason to suppose that wood might be found growing in the interior, I directed Mr. Fisher to walk up it, accompanied by a small party, and to occupy an hour or two while the Griper was coming up, and Captain Sabine and myself were employed upon the beach, in examining the nature and productions of the country.

Mr. Fisher reported, on his return, that he had followed the stream between three and four miles, where it turned to the southwest, without discovering any indications of a wooded country; but a sufficient explanation respecting the birch-bark was perhaps furnished by his finding, at the distance of a quarter of a mile from the sea, a piece of whalebone two feet ten inches in length and two inches in breadth, having a number of circular holes very neatly and regularly perforated along one of its edges, which had undoubtedly formed part of an Esquimaux sledge. This circumstance affording a proof of the Esquimaux having visited this part of the coast at no very distant period, it

was concluded that the piece of bark above alluded to had been brought hither by these people. From the appearance of the whalebone, it might have been lying there for four or five years. That none of the Esquimaux tribe had visited this part of the coast since we landed there in 1818, was evident from the flagstaff then erected still remaining untouched. Mr. Fisher found every part of the valley quite free from snow as high as he ascended it: and the following fact seems to render it probable that no great quantity either of snow or sleet had fallen here since our last visit. Mr. Fisher had not proceeded far, till, to his great surprise, he encountered the tracks of human feet upon the banks of the stream, which appeared so fresh that he at first imagined them to have been recently made by some natives, but which, on examination, were distinctly ascertained to be the marks of our own shoes, made eleven months before.

CHAPTER II.

Entrance into Sir James Lancaster's Sound of Baffin.—Uninterrupted Passage to the Westward.—Discovery and Examination of Prince Regent's Inlet.—Progress to the Southward stopped by Ice.—Return to the Northward.—Pass Barrow's Strait, and enter the Polar Sea.

WE were now about to enter and to explore that great sound or inlet which has obtained a degree of celebrity beyond what it might otherwise have

been considered to possess, from the very opposite opinions which have been held with regard to it. To us it was peculiarly interesting, as being the point to which our instructions more particularly directed our attention; and I may add, what I believe we all felt, it was that point of the voyage which was to determine the success or failure of the expedition, according as one or other of the opposite opinions alluded to should be corroborated. It will readily be conceived, then, how great our anxiety was for a change of the westerly wind and swell, which, on the 1st of August, set down Sir James Lancaster's Sound, and prevented our making much progress. Several whales were seen in the course of the day, and Mr. Allison remarked that this was the only part of Baffin's Bay in which he had ever seen young whales; for it is a matter of surprise to the whalers in general, that they seldom or never meet with young ones on this fishery, as they are accustomed to do in the seas of Spitzbergen.

The Griper continued to detain us so much, that I determined on making the best of our way to the westward, and ordered the Hecla to be hove to in the evening, and sent Lieutenant Liddon an instruction, with some signals, which might facilitate our meeting in case of fog; and I appointed as a place of rendezvous the meridian of 85° west, and as near the middle of the sound as circumstances would permit. As soon, therefore, as the boat returned from the Griper, we carried a press of sail, and in the course of the evening saw the northern shore of the sound looming through the clouds which hung over it.

The weather being clear in the evening of the 2d, we had the first distinct view of both sides of the sound ; and the difference in the character of the two shores was very apparent ; that on the south consisting of high and peaked mountains, completely snow-clad, except on the lower parts, while the northern coast has generally a smoother outline, and had, comparatively with the other, little snow upon it ; the difference in this last respect appearing to depend principally on the difference in their absolute height. The sea was open before us, free from ice or land ; and the Hecla pitched so much from the westerly swell in the course of the day, as to throw the water once or twice into the stern windows ; a circumstance which, together with other appearances, we were willing to attribute to an open sea in the desired direction. More than forty black whales were seen during the day.

We made little way on the 3d, but being favoured at length by the easterly breeze which was bringing up the Griper, and for which we had long been looking with much impatience, a crowd of sail was set to carry us with all rapidity to the westward. It is more easy to imagine than to describe the almost breathless anxiety which was now visible in every countenance, while, as the breeze continued to a fresh gale, we ran quickly up the sound. The mastheads were crowded by the officers and men during the whole afternoon ; and an unconcerned observer, if any could have been unconcerned on such an occasion, would have been amused by the eagerness with which the various reports from the crow's-nest were received ;

all, however, hitherto favourable to our most sanguine hopes.

Our course was nearly due west, and the wind still continuing to freshen, took us in a few hours nearly out of sight of the Griper. The only ice which we met with consisted of a few large bergs very much washed by the sea; and the weather being remarkably clear, so as to enable us to run with perfect safety, we were by midnight, in a great measure, relieved from our anxiety respecting the supposed continuity of land at the bottom of this magnificent inlet, having reached the longitude of $83^{\circ} 12'$, where the two shores are still above thirteen leagues apart, without the slightest appearance of any land to the westward of us for four or five points of the compass.

Having made the ship snug, so as to be in readiness to round to should the land be seen ahead, and the Griper having come up within a few miles of us, we again bore up at one A.M., the 4th. At half past three, Lieutenant Beechey, who had relieved me on deck, discovered from the crow's-nest a reef of rocks, in-shore of us to the northward, on which the sea was breaking. The cliffs on this part of the coast present a singular appearance, being stratified horizontally, and having a number of regular projecting masses of rock, broad at the bottom, and coming to a point at the top, resembling so many buttresses, raised by art at equal intervals.

After lying-to for an hour, we again bore up to the westward, and soon after discovered a cape, afterward named by Captain Sabine, CAPE FELL-FOOT, which appeared to form the termination of

this coast ; and as the haze, which still prevailed to the south, prevented our seeing any land in that quarter, and the sea was literally as free from ice as any part of the Atlantic, we began to flatter ourselves that we had fairly entered the Polar Sea, and some of the most sanguine among us had even calculated the bearing and distance of Icy Cape, as a matter of no very difficult or improbable accomplishment. This pleasing prospect was rendered the more flattering by the sea having, as we thought, regained the usual oceanic colour, and by a long swell which was rolling in from the southward and eastward. At six P.M., however, land was reported to be seen ahead. The vexation and anxiety produced on every countenance by such a report were but too visible, until, on a nearer approach, it was found to be only an island, of no very large extent, and that, on each side of it, the horizon still appeared clear for several points of the compass. At eight P.M. we came to some ice of no great breadth or thickness, extending several miles in a direction nearly parallel to our course ; and as we could see clear water over it to the southward, I was for some time in the hope that it would prove a detached stream, from which no obstruction to our progress westerly was to be apprehended. At twenty minutes past ten, however, the weather having become hazy and the wind light, we perceived that the ice, along which we had been sailing for the last two hours, was joined, at the distance of half a mile to the westward of us, to a compact and impenetrable body of floes, which lay across the whole breadth of the strait, formed by the island and the western point of Maxwell Bay.

We hauled our wind to the northward, just in time to avoid being embayed in the ice, on the outer edge of which a considerable surf, the effect of the late gale, was then rolling.

While the calm and thick weather lasted, a number of the officers and men amused themselves in the boats, in endeavouring to kill some of the white whales which were swimming about the ships in great numbers; but the animals were so wary, that they would scarcely suffer the boats to approach them within thirty or forty yards without diving. Mr. Fisher described them to be generally from eighteen to twenty feet in length; and he stated that he had several times heard them emit a shrill, ringing sound, not unlike that of musical glasses when badly played. This sound, he farther observed, was most distinctly heard when they happened to swim directly beneath the boat, even when they were several feet under water, and ceased altogether on their coming to the surface. We saw also, for the first time, one or two shoals of narwhals, called by the sailors sea-unicorns.

A steady breeze springing up from the W.N.W. in the afternoon, the ships stood to the northward till we had distinctly made out that no passage to the westward could at present be found between the ice and the land. The weather having become clear about this time, we perceived that there was a large open space to the southward, where no land was visible; and for this opening, over which there was a dark water-sky, our course was now directed.

Since the time when we first entered Sir James Lancaster's Sound, the sluggishness of the com-

passes, as well as the amount of their irregularity produced by the attraction of the ship's iron, had been found very rapidly, though uniformly, to increase as we proceeded to the westward; so much, indeed, that, for the last two days, we had been under the necessity of giving up altogether the usual observations for determining the variation of the needle on board the ships. This irregularity became more and more obvious as we now advanced to the southward, which rendered it not improbable that we were making a very near approach to the magnetic pole. For the purposes of navigation, therefore, the compasses were from this time no longer consulted; and in a few days afterward, the binnacles were removed as useless lumber from the deck to the carpenter's storeroom, where they remained during the rest of the season.

A dark sky to the southwest had given us hopes of finding a westerly passage to the south of the ice along which we were now sailing; more especially as the inlet began to widen considerably as we advanced in that direction: but at three A.M. on the morning of the 8th, we perceived that the ice ran close in with a point of land bearing S.b. E. from us, which appeared to form the southern extremity of the eastern shore.

With the increasing width of the inlet we had flattered ourselves with increasing hopes; but we soon experienced the mortification of disappointment. The prospect from the crow's-nest began to assume a very unpromising appearance, the whole of the western horizon, from north round to S.b.E., being completely covered with ice, consisting of heavy and extensive floes, beyond which no

indication of water was visible; instead of which there was a bright and dazzling iceblink extending from shore to shore. The western coast of the inlet, however, trended much more to the westward than before, and no land was visible to the southwest, though the horizon was so clear in that quarter, that, if any had existed of moderate height, it might have been easily seen at this time at the distance of ten or twelve leagues. From these circumstances, the impression received at the time was, that the land, both on the eastern and western side of this inlet, would be one day found to consist of islands.

A breeze sprung up from the northward on the morning of the 12th, but the weather was so foggy for some hours that we did not know in what direction it was blowing. As soon as the fog cleared away, so as to enable us to see a mile or two around us, we found that the floe to which we had anchored was drifting fast down upon another body of ice to leeward, threatening to enclose the ships between them. We therefore cast off and made sail, in order to beat to the northward, which we found great difficulty in doing, owing to the quantity of loose ice with which this part of the inlet was now covered. A remarkably thick fog obscured the eastern land from our view this evening at the distance of five or six miles, while the western coast was distinctly visible at four times that distance.

The weather was beautifully calm and clear on the 13th, when, being near an opening in the eastern shore, I took the opportunity of examining it in a boat. It proved to be a bay, a mile wide at

its entrance, and three miles deep in an E.b.S. direction, having a small but snug cove on the north side, formed by an island, between which and the main land is a bar of rocks, which completely shelters the cove from sea or drift ice. We found the water so deep, that in rowing close along the shore we could seldom get bottom with seven fathoms of line. The cliffs on the south side of this bay, to which I gave the name of PORT BOWEN, resemble, in many places, ruined towers and battlements; and fragments of the rocks were constantly falling from above. At the head of the bay is an extensive piece of low flat ground, intersected by numerous rivulets, which, uniting at a short distance from the beach, formed a deep and rapid stream, near the mouth of which we landed. This spot was, I think, the most barren I ever saw, the ground being almost entirely covered with small pieces of slaty limestone, among which no vegetation appeared for more than a mile, to which distance Mr. Ross and myself walked inland, following the banks of the stream. Among the fragments we picked up one piece of limestone, on which was the impression of a fossil-shell. We saw here a great number of young black guillemots, and a flock of ducks, which we supposed to be of the eider species.

The narwhals were here very numerous; these animals appear fond of remaining with their backs exposed above the surface of the water, in the same manner as the whale, but for a much longer time, and we frequently also observed their horns erect, and quite stationary for several minutes together.

The whole of the 14th was occupied in an un-

successful attempt to find an opening in the ice to the westward, which remained perfectly close and compact, with a bright iceblink over it.

The ice continued in the same unfavourable state on the 15th; and being desirous of turning to some account this vexatious but unavoidable detention, I left the ship, accompanied by Captain Sabine and Mr. Hooper, in order to make some observations on shore, and directed Lieutenant Liddon to send a boat from the Griper for the same purpose. We landed in one of the numerous valleys or ravines which occur on this part of the coast, and at a few miles' distance very much resemble bays, being bounded by high hills that have the appearance of bluff headlands. We ascended with some difficulty the hill on the south side of the ravine, which is very steep, and covered with innumerable detached blocks of limestone, some of which are constantly rolling down from above, and afford a very insecure footing. From the top of this hill, which is about six or seven feet above the level of the sea, and commands an extensive view to the westward, the prospect was by no means favourable to the immediate accomplishment of our object. No water could be seen over the ice to the north-west, and a bright and dazzling blink covered the whole space comprised between the islands and the north shore. It was a satisfaction, however, to find that no *land* appeared which was likely to impede our progress; and we had been too much accustomed to the obstruction occasioned by ice, and too well aware of the suddenness with which that obstruction is often removed, to be at all discouraged by present appearances.

On the top of this hill we deposited a bottle, containing a short notice of our visit, and raised over it a small mound of stones; of these we found no want, for the surface was covered with small pieces of schistose limestone, and nothing like soil or vegetation could be seen.

On the 17th we had a fresh breeze from the S.S.W., with so thick a fog that, in spite of the most unremitting attention to the sails and the steerage, the ships were constantly receiving heavy shocks from the loose masses of ice with which the sea was covered, and which, in the present state of the weather, could not be distinguished at a sufficient distance to avoid them. On the weather clearing up in the afternoon, we saw for the first time a remarkable bluff headland, which forms the northeastern point of the entrance into Prince Regent's Inlet, and to which I gave the name of CAPE YORK. A little to the eastward of Cape Fellfoot, we observed six stripes of snow near the top of the cliff, being very conspicuous at a great distance, when viewed from the southward. These stripes, which are formed by the drift of snow between the buttress-like projections before described, and which remained equally conspicuous on our return the following year, have probably at all times much the same appearance, at least about this season of the year, and may, on this account, perhaps, be deemed worthy of notice as a landmark.

There being still no prospect of getting a single mile to the westward, in the neighbourhood of Prince Leopold's Islands, and a breeze having freshened up from the eastward in the afternoon, I determined to stand over once more towards the

northern shore, in order to try what could there be done towards effecting our passage; and at nine P.M., after beating for several hours among floes and streams of ice, we got into clear water near that coast, where we found some swell from the eastward. There was just light enough at midnight to enable us to read and write in the cabin.

The wind and sea increased on the 19th, with a heavy fall of snow, which, together with the uselessness of the compasses, and the narrow space in which we were working between the ice and the land, combined to make our situation for several hours a very unpleasant one.

On the 21st we had nothing to impede our progress but the want of wind, the great opening through which we had hitherto proceeded from Baffin's Bay being now so perfectly clear of ice, that it was impossible to believe it to be the same part of the sea, which, but a day or two before, had been completely covered with floes to the utmost extent of our view. In the forenoon we picked up a small piece of wood, which appeared to have been the end of a boat's yard, and which caused sundry amusing speculations among our gentlemen; some of whom had just come to the very natural conclusion that a ship had been here before us, and that, therefore, we were not entitled to the honour of the first discovery of that part of the sea on which we were now sailing; when a stop was suddenly put to this and other ingenious inductions by the information of one of the seamen, that he had dropped it out of his boat a fortnight before. I could not get him to recollect exactly the day on which it had been dropped, but what he

stated was sufficient to convince me that we were not at that time more than ten or twelve leagues from our present situation; perhaps not half so much; and that, therefore, here was no current setting constantly in any one direction.

We perceived, as we proceeded, that the land along which we were sailing, and which, with the exception of some small inlets, had appeared to be hitherto continuous from Baffin's Bay, began now to trend much to the northward, beyond Beechey Island, leaving a large open space between that coast and the distant land to the westward, which now appeared like an island, of which the extremes to the north and south were distinctly visible. The latter was a remarkable headland, having at its extremity two small table-hills, somewhat resembling boats turned bottom upward, and was named **CAPE HOTHAM**. At sunset we had a clear and extensive view to the northward, between Cape Hotham and the eastern land. On the latter, several headlands were discovered and named; between the northernmost of these, called **CAPE BOWDEN**, and the island to the westward, there was a channel of more than eight leagues in width, in which neither land nor ice could be seen from the mast-head. To this noble channel I gave the name of **WELLINGTON**. The arrival off this grand opening was an event for which we had long been looking with much anxiety and impatience; for the continuity of land to the northward had always been a source of uneasiness to us, principally from the possibility that it might take a turn to the southward and unite with the coast of America. The appearance of this broad opening, free from ice,

and of the land on each side of it, more especially that on the west, leaving scarcely a doubt on our minds of the latter being an island, relieved us from all anxiety on that score; and every one felt that we were now finally disentangled from the land which forms the western side of Baffin's Bay; and that, in fact, we had actually entered the Polar Sea.

Though two thirds of the month of August had now elapsed, I had every reason to be satisfied with the progress which we had hitherto made. I calculated upon the sea being navigable for six weeks to come, and probably more, if the state of the ice would permit us to edge away to the southward in our progress westerly: our prospects, indeed, were truly exhilarating; the ships had suffered no injury; we had plenty of provisions; crews in high health and spirits; a sea, if not open, at least navigable; and a zealous and unanimous determination, in both officers and men, to accomplish, by all possible means, the grand object on which we had the happiness to be employed.

CHAPTER III.

Favourable Appearances of an open Westerly Passage.—Land to the Northward, a Series of Islands.—General Appearance of them.—Meet with some Obstruction from low Islands surrounded with Ice.—Remains of Esquimaux Huts, and natural Productions of Byam Martin Island.—Tedious Navigation from Fogs and Ice.—Difficulty of Steering a Proper Course.—Arrival and Landing on Melville Island.—Proceed to the Westward, and reach the Meridian of 110° W. Long., the first Stage in the Scale of Rewards granted by Act of Parliament.

A CALM which prevailed during the night kept us quite stationary till three A.M. on the 23d, when a fresh breeze sprung up from the northward, and all sail was made for Cape Hotham, to the southward of which it was now my intention to seek a direct passage towards Behring's Strait. Wellington Channel, to the northward of us, was as open and navigable to the utmost extent of our view as any part of the Atlantic; but as it lay at right angles to our course, and there was still an opening at least ten leagues wide to the southward of Cornwallis Island, I could have no hesitation in deciding which of the two it was our business to pursue. It is impossible to conceive anything more animating than the quick and unobstructed run with which we were favoured, from Beechey Island across to Cape Hotham.² Most men have, probably, at one time or another, experienced that elevation of spirits which is usually produced by rapid motion of any kind; and it will readily be

conceived how much this feeling was heightened in us, in the few instances in which it occurred, by the slow and tedious manner in which the greater part of our navigation had been performed in these seas.

At noon we had reached the longitude of $94^{\circ} 43' 15''$, the latitude by observation being $74^{\circ} 20' 52''$, when we found that the land which then formed the western extreme on this side was a second island, which I called GRIFFITH ISLAND. The ice in this neighbourhood was covered with innumerable "hummocks," and the floes were from seven to ten feet in thickness.

After various unsuccessful attempts to get through the ice which now lay in our way, we were at length so fortunate as to accomplish this object by "boring" through a number of heavy "streams," which occasioned the ships to receive many severe shocks; and, at half an hour before midnight, we were able to pursue our course, through "sailing ice," to the westward.

The weather was at this time remarkably serene and clear; and although we saw a line of ice to the southward of us, lying in a direction nearly east and west, or parallel to the course on which we were steering, and some more land appeared to the westward, yet the space of open water was still so broad, and the prospect from the masthead, upon the whole, so flattering, that I thought the chances of our separation had now become greater than before; and I therefore considered it right to furnish Lieutenant Liddon with fresh instructions, and to appoint some new place of rendezvous in case of unavoidable separation from the Hecla.

At ten o'clock, after having had a clear view of the ice and of the land about sunset, and finding that there was at present no passage to the westward, we hauled off to the southeast, in the hope of finding some opening in the ice to the southward, by which we might get round in the desired direction. We were encouraged in this hope by a dark "water-sky" to the southward; but, after running along the ice till half past eleven without perceiving any opening, we again bore up. There was in this neighbourhood a great deal of that particular kind of ice called by the sailors "dirty ice," on the surface of which were strewed sand, stones, and, in some instances, moss: ice of this kind must, of course, at one time or other, have been in close contact with the land.

At ten A.M. I despatched Captain Sabine and Mr. Ross to the eastern point of the island, which we were about to round in the ships, in order to make the necessary observations, and to examine the natural productions of the shore. Our latitude at noon was $75^{\circ} 03' 12''$, long. $103^{\circ} 44' 37''$, and the depth of water forty fathoms. The gentlemen reported, on their return, that they had landed on a sandy beach, near the east point of the island, which they found to be more productive, and altogether more interesting, than any other part of the shores of the Polar regions which we had yet visited. The remains of Esquimaux habitations were found in four different places. Six of these, which Captain Sabine had an opportunity of examining, and which are situated on a level sandy bank, at the side of a small ravine near the sea, are described by him as consisting of stones rudely placed

in a circular, or, rather, an elliptical form. They were from seven to ten feet in diameter; the broad, flat sides of the stones standing vertically, and the whole structure, if such it may be called, being exactly similar to that of the summer huts of the Esquimaux which we had seen at Hare Island the preceding year. Attached to each of them was a smaller circle, generally four or five feet in diameter, which had probably been the fireplace. The small circles were placed indifferently as to their direction from the huts to which they belonged; and from the moss and sand which covered some of the lower stones, particularly those which composed the flooring of the huts, the whole encampment appeared to have been deserted for several years. Very recent traces of the reindeer and musk-ox were seen in many places; and a head of the latter, with several reindeers' horns, was brought on board. A few patches of snow remained in sheltered situations; the ravines, however, which were numerous, bore the signs of recent and considerable floods, and their bottoms were swampy, and covered with very luxuriant moss and other vegetation, the character of which differed very little from that of the land at the bottom of Possession Bay.

The dip of the magnetic needle was $88^{\circ} 25' 58''$, and the variation was now found to have changed from $128^{\circ} 58'$ west, in the longitude of $91^{\circ} 48'$, where our last observations on shore had been made, to $165^{\circ} 50' 09''$ east, at our present station; so that we had, in sailing over the space included between those two meridians, crossed immediately to the northward of the magnetic pole

and had undoubtedly passed over one of those spots upon the globe where the needle would have been found to vary 180° , or, in other words, where its north pole would have pointed due south.

The wind became very light from the eastward, and the weather continued so foggy that nothing could be done during the night but to stand off-and-on, by the soundings, between the ice and the land. On the 29th, after a few hours of clear weather, the fog came on again as thick as before; fortunately, however, we had previously been enabled to take notice of several pieces of ice, by steering for each of which in succession we came to the edge of a floe, along which our course was to be pursued to the westward. As long as we had this guidance, we advanced with great confidence; but as soon as we came to the end of the floe, which then turned off to the southward, the circumstances under which we were sailing were perhaps such as have never occurred since the early days of navigation. To the northward was the land; the ice, as we supposed, to the southward; the compasses useless; and the sun completely obscured by a fog so thick, that the Griper could only now and then be seen at a cable's length astern. We had literally, therefore, no mode of regulating our course but by once more trusting to the steadiness of the wind; and it was not a little amusing, as well as novel, to see the quartermaster conning the ship by looking at the dogvane.

The weather cleared a little at intervals, but not enough to enable us to proceed till nine A.M. on the 31st, when we cast off from the ice, with a very light air from the northward. We occasion-

ally caught a glimpse of land through the heavy fog-banks with which the horizon was covered, which was sufficient to give us an idea of the true direction in which we ought to steer. Soon after noon we were once more enveloped in a fog, which, however, was not so thick as to prevent our having recourse to a new expedient for steering the ships, which circumstances at the time naturally suggested to our minds. Before the fog recommenced, and while we were sailing on the course which, by the bearings of the land, we knew to be the right one, the Griper was exactly astern of the Hecla, at the distance of about a quarter of a mile. The weather being fortunately not so thick as to prevent our still seeing her at that distance, the quartermaster was directed to stand aft, near the taffrail, and to keep her constantly astern of us, by which means we contrived to steer a tolerably straight course to the westward. The Griper, on the other hand, naturally kept the Hecla right ahead; and thus, however ridiculous it may appear, it is nevertheless true, that we steered one ship entirely by the other for a distance of ten miles out of sixteen and a half, which we sailed between one and eleven P.M.

The wind died away on the morning of the 1st of September, and the fog was succeeded by snow and sleet, which still rendered the atmosphere extremely thick. At a quarter before four A.M., I was informed by the officer of the watch that a breeze had sprung up, and that there was very little ice near the ships. Anxious to take advantage of these favourable circumstances, I directed all sail to be made to the westward: there was no dif-

difficulty in complying with the first part of this order ; but to ascertain which way the wind was blowing, and to which quarter of the horizon the ship's head was to be directed, was a matter of no such easy accomplishment ; nor could we devise any means of determining this question till five o'clock, when we obtained a sight of the sun through the fog, and were thus enabled to shape our course, the wind being moderate from the northward.

At one A.M. on the 2d, a star was seen, being the first that had been visible to us for more than two months.

As we were making no way to the westward, I left the ship, accompanied by a large party of officers and men, and was soon after joined by the Griper's boats. The basis of this land is sandstone ; but we met with limestone also, occurring in loose pieces on the surface, and several lumps of coal were brought in by the parties who had traversed the island in different directions. Our sportsmen were by no means successful, having seen only two deer, which were too wild to allow them to get near them. The dung of these animals, however, as well as that of the musk-ox, was very abundant, especially in those places where the moss was most luxuriant ; every here and there we came to a spot of this kind, consisting of one or two acres of ground, covered with a rich vegetation, which was evidently the feeding-place of those animals, there being quantities of their hair and wool lying scattered about. Several heads of the musk-ox were picked up, and one of the Hecla's seamen brought to the boat a narwhal's horn, which he found on a hill more than a mile from the sea, and which must

have been carried thither by Esquimaux or by bears: three or four brace of ptarmigan were killed, and these were the only supply of this kind which we obtained. We found no indication of this part of the island having been inhabited, unless the narwhal's horn be considered as such.

The wind continued light and variable till half past eight A.M. on the 3d, when a breeze from the northward once more enabled us to make some progress. I was the more anxious to do so from having perceived that the main ice had, for the last twenty-four hours, been gradually, though slowly closing on the shore, thereby contracting the scarcely navigable channel in which we were sailing. The land which formed our western extreme was a low point, five miles to the westward of our place of observation the preceding day, which I named Point Ross, and the ice had already approached this point so much that there was considerable doubt whether any passage could be found between them. We had scarcely cleared the point when the wind failed us, and the boats were immediately sent ahead to tow, but a breeze springing up shortly after from the westward, obliged us to have recourse to another method of gaining ground, which we had not hitherto practised: this was by using small anchors and whale-lines as warps, by which means we made great progress, till, at forty minutes after noon, we were favoured by a fresh breeze, which soon took us into an open space of clear water to the northward and westward. A little to the westward of Point Ross there was a barrier of ice, composed of heavy masses firmly fixed to the ground at nearly regu-

lar intervals for about a mile, in a direction parallel to the beach. At right angles to this a second tier projected, of the same kind of ice, extending to the shore, so that the two together formed a most complete harbour, within which, I believe, a ship might have been placed in case of necessity, without much danger from the pressure of the external floes of ice. It was natural for us to keep in view the possibility of our being obliged to pass the ensuing winter in such a harbour; and it must be confessed, that the apparent practicability of finding such tolerable security for the ships as this artificial harbour afforded, should we fail in discovering a more safe and regular anchorage, added not a little to the confidence with which our operations were carried on during the remainder of the season.

At a quarter past nine P.M. we had the satisfaction of crossing the meridian of 110° west from Greenwich, in the latitude of $74^{\circ} 44' 20''$; by which his majesty's ships under my orders became entitled to the sum of five thousand pounds, being the reward offered to such of his majesty's subjects as might succeed in penetrating thus far to the westward within the Arctic Circle. In order to commemorate the success which had hitherto attended our exertions, the bluff headland which we had just passed was subsequently called by the men BOUNTY CAPE; by which name I have therefore distinguished it on the chart.

The wind increasing to a fresh gale from the northward in the afternoon, and the ice still continuing to oppose an impenetrable barrier to our farther progress, I determined to beat up to the

northern shore of the bay, and, if a tolerable roadstead could be found, to drop our anchors till some change should take place. This was accordingly done at three P.M., in seven fathoms' water. This roadstead, which I called the BAY OF THE HECLA AND GRIPER, affords very secure shelter with the wind from E.N.E. round by north to S.W., and we found it more free from ice than any other part of the southern coast of the island.

The Bay of the Hecla and Griper was the first spot where we had dropped anchor since leaving the coast of Norfolk; a circumstance which was rendered the more striking to us at the moment, as it appeared to mark, in a very decided manner, the completion of one stage of our voyage. The ensigns and pendants were hoisted as soon as we had anchored, and it created in us no ordinary feelings of pleasure to see the British flag waving for the first time in these regions, which had hitherto been considered beyond the limits of the habitable part of the world.

CHAPTER IV.

Further Examination of Melville Island.—Continuation of our Progress to the Westward.—Long detention by the Ice.—Party sent on shore to hunt Deer and Musk-oxen.—Return in three Days, after losing their way.—Anxiety on their account.—Proceed to the Westward till finally stopped by the Ice.—In returning to the Eastward, the Griper forced on the Beach by the Ice.—Search for, and Discovery of, a Winter Harbour on Melville Island.—Operations for securing the Ships in their Winter Quarters.

As the wind still continued to blow strong from the northward on the morning of the 6th, without any appearance of opening a passage for us past Cape Hearne, I took the opportunity of sending all our boats from both ships at eight A.M., to bring on board a quantity of moss-peat which our gentlemen reported having found near a small lake at no great distance from the sea, and which I directed to be substituted for part of our usual allowance of coals. Captain Sabine also went on shore to make the requisite observations; and several of the officers of both ships to sport, and to collect specimens of natural history.

The wind beginning to moderate soon after noon, and there being at length some appearance of motion in the ice near Cape Hearne, the boats were immediately recalled from the shore, and returned at two P.M., bringing some peat, which was found to burn tolerably, but a smaller quantity than I had hoped to procure. We then made sail for Cape

Hearne, which we rounded at six o'clock, having no soundings with from seventeen to twenty fathoms of line, at the distance of a mile and a quarter from the point.

I was beginning once more to indulge in those flattering hopes, of which often-repeated disappointments cannot altogether deprive us, when I perceived from the crow's-nest a compact body of ice, extending completely in to the shore near the point which formed the western extreme. We ran sufficiently close to be assured that no passage to the westward could at present be effected, the floes being literally upon the beach, and not a drop of clear water being visible beyond them. I then ordered the ships to be made fast to a floe, being in eighty fathoms' water, at the distance of four or five miles from the beach. The season had now so far advanced as to make it absolutely necessary to secure the ships every night from ten till two o'clock, the weather being too dark during that interval to allow of our keeping under way in such a navigation as this, deprived as we were of the use of compasses.

On the morning of the 8th, there being no prospect of any immediate alteration in the ice, I directed the boats to be sent on shore from both ships, to endeavour to procure some game, as well as to examine the productions of this part of the island. On going to the masthead, shortly after the boats had been despatched, I found that the bight of ice in which the ships were lying was not one floe, but formed by the close junction of two, so that our situation was by no means so secure as I had supposed. for this bight was so far from being a

protection to us, in case of ice driving on shore, that it would probably be the means of "nipping" us between the floes which formed it. I therefore determined on immediately removing the ships in-shore, and went in a boat to look out for a place for that purpose, there being no alternative between this and our returning some distance to the eastward, into the larger space of clear water which we had there left behind us. I found that a heavy piece of ice aground in twelve fathoms, at the distance of three hundred yards from the beach, would suit our purpose for the Hecla, and another, in ten fathoms, still nearer in-shore, was selected for the Griper. These masses were from twenty to thirty feet above the sea, and each about the length of the respective ships.

At four P.M., the weather being quite calm, the ships were towed in-shore by the boats, and made fast in the places selected for them.

Impatient and anxious as we were to make the most of the short remainder of the present season, our mortification will easily be imagined at perceiving, on the morning of the 9th, not only that the ice was as close as ever to the westward, but that the floes in our immediate neighbourhood were sensibly approaching the shore. As there was no chance, therefore, of our being enabled to move, I sent a party on shore at daylight to collect what coal they could find, and in the course of the day, nearly two thirds of a bushel, being about equal to the Hecla's daily expenditure, was brought on board. Our sportsmen, who were out for several hours, could only procure us a hare and a few ducks.

On the 11th there was no alteration in the ice near the ships, and Mr. Bushnan, whom I despatched at daylight to the western cape, reported on his return, that appearances were equally unpromising in that quarter. Mr. Dealy was fortunate enough to kill the first musk-ox that our sportsmen had yet been able to get near; but, as it was at the distance of eight or ten miles from the ships, our present situation with regard to the ice would not allow of my sending a party of men to bring it on board. A piece of the meat which Mr. Dealy brought with him was considered to taste tolerably well, but its smell was by no means tempting.

I must now mention an occurrence which had caused considerable apprehension in our minds for the last two days, and the result of which had very nearly proved of very serious importance to the future welfare of the expedition. Early on the morning of the 11th I received a note from Lieutenant Liddon, acquainting me that, at daylight on the preceding day, Mr. Fife, with a party of six men, had been despatched from the Griper, with the hope of surprising some reindeer and musk-oxen, whose tracks had been seen in a ravine to the westward of the ships. As they had not yet returned, in compliance with the instructions given to Mr. Fife, and had only been supplied with a small quantity of provisions, it was natural to apprehend that they had lost their way in pursuit of game. I therefore recommended to Lieutenant Liddon to send a party in search of his people, and Messrs. Reid, Beverly, and Wakeham, who immediately volunteered their services on the occasion, were accordingly despatched for this purpose. Soon after their departure,

however, it began to snow, which rendered the atmosphere so extremely thick, especially on the hills along which they had to travel, that this party also lost their way, in spite of every precaution, but fortunately got sight of our rockets after dark, by which they were directed to the ships, and returned at ten o'clock, almost exhausted with cold and fatigue, without any intelligence of the absentees.

At daylight on the following morning, I sent Lieutenant Hoppner, with the Hecla's fore-royal-mast rigged as a flagstaff, which he erected on a conspicuous hill four or five miles inland, hoisting upon it a large ensign, which might be seen at a considerable distance in every direction. This expedient occurred to us as a more certain mode of directing our absentees towards the ships than that of sending out a number of parties, which I could not, in common prudence as well as humanity, permit to go to any great distance from the ships; but the snow fell so thick, and the drift was so great during the whole of the 12th, that no advantage could at that time be expected from it, and another night came without the absent party appearing.

Our apprehensions on their account was by this time increased to a most painful degree, and I therefore ordered four parties, under the command of careful officers, to be prepared to set out in search of them the following morning. These parties carried with them a number of pikes, having small flags attached to them, which they were directed to plant at regular intervals, and which were intended to answer the double purpose of guiding themselves on their return and of directing

the absent party, should they meet with them, to the ships. For the latter purpose a bottle was fixed to each pike, containing the necessary directions for their guidance, and acquainting them that provisions would be found at the large flagstaff on the hill. Our searching parties left the ships soon after daylight, the wind still blowing hard from the westward, with incessant snow, and the thermometer at 28°. This weather continued without intermission during the day, and our apprehensions for the safety of our people were excited to a most alarming degree, when the sun began to descend behind the western hills for the third time since they had left the ship; I will not, therefore, attempt to describe the joyful feelings we suddenly experienced, on the Griper's hoisting the signal appointed, to inform us that her men, or a part of them, were seen on their return. Soon after we observed seven persons coming along the beach to the eastward, who proved to be Mr. Nias and his party, with four out of the seven men belonging to the Griper. From the latter, consisting of a corporal of marines and three seamen, we learned that they had lost their way within a few hours after leaving the ship, and had wandered about without anything to guide them till about ten o'clock on the following day, when they descried the large flagstaff at a great distance. At this time the whole party were together; but now unfortunately separated, in consequence of a difference of opinion respecting the flagstaff, which Mr. Fife mistook for a smaller one that had been erected some days before at a considerable distance to the eastward of our present situation; and with that impression, walked

away in a contrary direction, accompanied by two of his men. The other four, who had now returned (of whom two were already much debilitated), determined to make for the flagstaff. When they had walked some distance and were enabled to ascertain what it was, one of them endeavoured to overtake Mr. Fife, but was too much fatigued, and returned to his comrades. They halted during a part of the night, made a sort of hut of stones and turf to shelter them from the weather, and kindled a little fire with gunpowder and moss to warm their feet; they had never been in actual want of food, having lived upon raw grouse, of which they were enabled to obtain a quantity sufficient for their subsistence. In the morning they once more set forward towards the flagstaff, which they reached within three or four hours after Lieutenant Beechey had left some provisions on the spot; having eaten some bread, and drunk a little rum and water, a mixture which they described as perfectly tasteless and clammy, they renewed their journey towards the ships, and had not proceeded far, when, notwithstanding the snow which was constantly falling, they met with footsteps which directed them to Mr. Nias and his party, by whom they were conducted to the ships.

The account they gave us of Mr. Fife and his two companions led us to believe that we should find them, if still living, at a considerable distance to the westward; and some parties were just about to set out in that direction, when the trouble and anxiety which this mistake would have occasioned us were prevented by the arrival of another of the searching parties, with the information that Mr.

Fife and the two men were on their way to the ships, being about five miles to the eastward. Some fresh hands were immediately sent to bring them in, and they arrived on board at ten P.M., after an absence of ninety-one hours, and having been exposed during three nights to the inclemency of the first wintry weather we had experienced. Almost the whole of this party were much exhausted by cold and fatigue, and several of them were severely frostbitten in their toes and fingers; but, by the skill and unremitted attention of our medical gentlemen, they were in a few days enabled to return to their duty.

At three A.M. of Tuesday, the 14th, the thermometer fell to 9° ; and from this time the commencement of winter may fairly be dated. On the 20th I considered it a duty incumbent upon me to call for the opinions of the senior officers of the expedition as to the expediency of immediately seeking a harbour in which the ships might securely lie during the ensuing winter. The opinions of the officers entirely concurring with my own as to the propriety of immediately resorting to this measure, I determined, whenever the ice and the weather would allow, to run back to the bay of the Hecla and Griper, in which neighbourhood alone we had any reason to believe that a suitable harbour might be found.

At half past two on the morning of the 22d, the night signal was made to weigh, and we began to heave at our cables; but such was the difficulty of raising our anchor and of hauling in our hawsers, owing to the stiffness of the ropes from frost and the quantity of ice which had accumulated

about them, that it was five o'clock before the ships were under way. Our rudder, also, was so choked by the ice which had formed about it, that it could not be moved till a boat had been hauled under the stern, and the ice beaten and cut away from it. We ran along to the eastward without any obstruction, in a channel about five miles wide, till we were within four or five miles of Cape Hearne, where the bay-ice, in unbroken sheets of about one third of an inch in thickness, began to offer considerable impediment to our progress. We at length, however, struck soundings with twenty-nine fathoms of line, and at eight P.M. anchored in nine fathoms, on a muddy bottom, a little to the eastward of our situation on the 5th.

In going to the westward we passed a shoal and open bay, immediately adjacent to the harbour which we were now about to examine, and soon after came to a reef of rocks, in some parts nearly dry, extending about three quarters of a mile to the southward of a low point on the southeastern side of the harbour. On rounding the reef, on which a quantity of heavy ice was lying aground, we found that a continuous floe, four or five inches in thickness, was formed over the whole harbour, which in every other respect appeared to be fit for our purpose; and that it would be necessary to cut a canal of two miles in length through the ice, in order to get the ships into a secure situation for the winter. We sounded the channel into the harbour for about three quarters of a mile, by making holes in the ice and dropping the lead through, and found the depth from five to six fathoms.

The ships weighed at six A.M. on the 24th, the

wind being still at north, and the weather moderate and fine. As soon as the Hecla was under sail, I went ahead in a boat to sound, and to select an anchorage for the ships. Near the southwestern point of this harbour there is a remarkable block of sandstone, somewhat resembling the roof of a house, on which the ships names were subsequently engraved by Mr. Fisher. This stone is very conspicuous in coming from the eastward, and, when kept open to the southward of the grounded ice at the end of the reef, forms a good landing-mark for the channel into the harbour. Off the end of the reef the water deepened to six fathoms, and the Hecla's anchor was dropped in eight fathoms, half a mile within the reef, and close to the edge of the ice through which the canal was to be cut. The Griper arrived soon after, and by half past eight A.M. both ships were secured in the proper position for commencing the intended operations.

As soon as our people had breakfasted, I proceeded with a small party of men to sound and to mark with boarding-pikes upon the ice the most direct channel we could find to the anchorage, having left directions for every other officer and man in both ships to be employed in cutting the canal. This operation was performed by first marking out two parallel lines, distant from each other a little more than the breadth of the larger ship. Along each of these lines a cut was then made with an ice saw, and others again at right angles to them, at intervals of from ten to twenty feet; thus dividing the ice into a number of square pieces, which it was again necessary to subdivide diagonally, in order to give room for their being

floated out of the canal. On returning from the upper part of the harbour, where I had marked out what appeared to be the best situation for our winter-quarters, I found that considerable progress had been made in cutting the canal and in floating the pieces out of it. To facilitate the latter part of the process, the seamen, who are always fond of doing things in their own way, took advantage of a fresh northerly breeze, by setting some boats' sails upon the pieces of ice, a contrivance which saved both time and labour. This part of the operation, however, was by far the most troublesome, principally on account of the quantity of young ice which formed in the canal, and especially about the entrance, where, before sunset, it had become so thick that a passage could no longer be found for the detached pieces without considerable trouble in breaking it. At half past seven P.M. we weighed our anchors and began to warp up the canal, but the northerly wind blew so fresh, and the people were so much fatigued, having been almost constantly at work for nineteen hours, that it was midnight before we reached the termination of our first day's labour.

All hands were again set to work on the morning of the 25th, when it was proposed to sink the pieces of ice, as they were cut, under the floe, instead of floating them out, the latter mode having now become impracticable on account of the lower part of the canal, through which the ships had passed, being hard frozen during the night. To effect this, it was necessary for a certain number of men to stand upon one end of the piece of ice which it was intended to sink, while other parties, hauling

at the same time upon ropes attached to the opposite end, dragged the block under that part of the floe on which the people stood. The officers of both ships took the lead in this employ, several of them standing up to their knees in water frequently during the day, with the thermometer generally at 12° , and never higher than 16° . At six P.M. we began to move the ships. The Griper was made fast astern of the Hecla, and the two ships' companies being divided on each bank of the canal, with ropes from the Hecla's gangways, soon drew the ships along to the end of our second day's work.

Sunday, 26th.—I should on every account have been glad to make this a day of rest to the officers and men; but the rapidity with which the ice increased in thickness, in proportion as the general temperature of the atmosphere diminished, would have rendered a day's delay of serious importance. I ordered the work, therefore, to be continued at the usual time in the morning; and such was the spirited and cheerful manner in which this order was complied with, as well as the skill which had now been acquired in the art of sawing and sinking the ice, that although the thermometer was at 6° in the morning, and rose no higher than 9° during the day, we had completed the canal at noon, having effected more in four hours than on either of the two preceding days. The whole length of this canal was four thousand and eighty-two yards, or nearly two miles and one third, and the average thickness of the ice was seven inches.

At half past one P.M. we began to track the ships along in the same manner as before, and at

a quarter past three we reached our winter-quarters, and hailed the event with three loud and hearty cheers from both ships' companies. The ships were in five fathoms water, a cable's length from the beach on the northwestern side of the harbour, to which I gave the name of WINTER HARBOUR; and I called the group of islands which we had discovered in the Polar Sea the NORTH GEORGIAN ISLANDS.

CHAPTER V.

Precautions for securing the Ships and Stores.—For promoting Good Order, Cleanliness, Health, and Good-Humour among the Ships' Companies.—Establishment of a Theatre and of the North Georgia Gazette.—Erection of an Observatory on Shore.—Commence our Winter's Amusements.—State of the Temperature, and various Meteorological Phenomena.—Miscellaneous Occurrences to the close of the year 1819.

HAVING, on the 19th October, reached the station where, in all probability, we were destined to remain for at least eight or nine months, during three of which we were not to see the face of the sun, my attention was immediately and imperiously called to various important duties; many of them of a singular nature, such as had, for the first time, devolved on any officer in his majesty's navy, and might, indeed, be considered of rare occurrence in the whole history of navigation. The security of the ships and the preservation of the various stores were objects of immediate concern. A regular

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system to be adopted for the maintenance of good order and cleanliness, as most conducive to the health of the crews during the long, dark, and dreary winter, equally demanded my attention.

Not a moment was lost, therefore, in the commencement of our operations. The whole of the masts were dismantled except the lower ones and the Hecla's main-topmast; the lower yards were lashed fore and aft amidships, to support the planks of the housing intended to be erected over the ships; and the whole of this framework was afterward roofed over with a cloth. The boats, spars, running rigging, and sails were removed on shore; and, as soon as the ships were secured and housed over, my whole attention was directed to the health and comfort of the officers and men. The surgeon reported that not the slightest disposition to scurvy had shown itself in either ship.

Soon after our arrival in Winter Harbour, when the temperature of the atmosphere had fallen considerably below zero of Fahrenheit, we found that the steam from the coppers, as well as the breath and other vapour generated in the inhabited parts of the ship, began to condense into drops upon the beams and the sides, to such a degree as to keep them constantly wet. In order to remove this serious evil, a large stone oven, cased with cast iron, in which all our bread was baked during the winter, was placed on the main hatchway, and the stovepipe led fore and aft on one side of the lower deck, the smoke being thus carried up the fore hatchway. On the opposite side of the deck an apparatus had been attached to the galley-range for conveying a current of heated air between

decks. This apparatus simply consisted of an iron box, about fifteen inches square, through which passed three pipes of two inches diameter, communicating below with the external air, and uniting above in a metal box, fixed to the side of the galley-range; to this box a copper stovepipe was attached, and conveyed to the middle part of the lower deck. When a fire was made under the air-vessel, the air became heated in its passage through the three pipes, from which it was conveyed through the stovepipe to the men's berths. While this apparatus was in good order, a moderate fire produced a current of air of the temperature of 87° , at the distance of seventeen feet from the fireplace; and with a pipe of wood, or any other imperfect conductor of heat, which would not allow of its escaping by the way, it might undoubtedly be carried to a much greater distance. By these means we were enabled to get rid of the moisture about the berths where the people messed; but when the weather became more severely cold, it still accumulated in the bed places occasionally to a serious and very alarming degree. Among the means employed to prevent the injurious effects arising from this annoyance, one of the most efficacious, perhaps, was a screen made of fearnaught, fixed to the beams round the galley, and dropping within eighteen inches of the deck, which served to intercept the steam from the coppers, and prevent it, as before, from curling along the beams, and condensing upon them into drops.

For the preservation of health, and as a necessary measure of economy, a few alterations were made in the quantity and quality of the provisions

issued. I directed the allowance of bread to be permanently reduced to two thirds, a precaution which, perhaps, it would have been as well to adopt from the commencement of the voyage. A pound of preserved meat, together with one pint of vegetable or concentrated soup per man, was substituted for one pound of salt beef weekly; a proportion of beer and wine was served in lieu of spirits; and a small quantity of sourkroust and pickles, with as much vinegar as could be used, was issued at regular intervals. The daily proportion of lime-juice and sugar was mixed together, and with a proper quantity of water, was drunk by each man in presence of an officer appointed to attend to this duty. This latter precaution may appear to have been unnecessary to those who are not aware how much sailors resemble children in all those points in which their own health and comfort are concerned. Whenever any game was procured, it was directed to be invariably served in lieu of, and not in addition to, the established allowance of other meat, except in a few extraordinary cases, when such an indulgence was allowed; and in no one instance, either in quantity or quality, was the slightest preference given to the officers.

Great attention was paid to the clothing of the men, and one day in the week was appointed for the examination of the men's shins and gums by the medical gentlemen, in order that any slight appearance of the scurvy might at once be detected, and checked by timely and adequate means.

Under circumstances of leisure and inactivity, such as we were now placed in, and with every prospect of its continuance for a very large portion

of the year, I was desirous of finding some amusement for the men during this long and tedious interval. I proposed, therefore, to the officers to get up a play occasionally on board the *Hecla*, as the readiest means of preserving among our crews that cheerfulness and good-humour which had hitherto subsisted. In this proposal I was readily seconded by the officers of both ships; and Lieutenant Beechey having been duly elected as stage-manager, our first performance was fixed for the 5th of November, to the great delight of the ships' companies. In these amusements I gladly undertook a part myself, considering that an example of cheerfulness, by giving a direct countenance to everything that could contribute to it, was not the least essential part of my duty, under the peculiar circumstances in which we were placed.

In order still farther to promote good-humour among ourselves, as well as to furnish amusing occupation during the hours of constant darkness, we set on foot a weekly newspaper, which was to be called the *North Georgia Gazette and Winter Chronicle*, and of which Captain Sabine undertook to be the editor, under the promise that it was to be supported by original contributions from the officers of the two ships: and I can safely say, that the weekly contributions had the happy effect of employing the leisure hours of those who furnished them, and of diverting the mind from the gloomy prospect which would sometimes obtrude itself on the stoutest heart.

Immediately on our arrival in harbour, Captain Sabine had employed himself in selecting a place for the observatory, which was erected in a conve-

nient spot, about seven hundred yards to the westward of the ships. It was also considered advisable immediately to set about building a house near the beach for the reception of the clocks and instruments. For this purpose we made use of a quantity of fir-plank, which was intended for the construction of spare boats, and which was so cut as not to injure it for that purpose. The ground was so hard frozen that it required great labour to dig holes for the upright posts which formed the support of the sides. The walls of this house being double, with moss placed between the two, a high temperature could, even in the severest weather which we might be doomed to experience, be kept up in it without difficulty by a single stove.

After our arrival in port we saw several reindeer and a few coveys of grouse; but the country is so destitute of everything like cover of any kind, that our sportsmen were not successful in their hunting excursions, and we procured only three reindeer previous to the migration of these and the other animals from the island, which took place before the close of the month of October, leaving only the wolves and foxes to bear us company during the winter. The full-grown deer which we killed in the autumn, gave us from one hundred and twenty to one hundred and seventy pounds of meat each, and a fawn weighed eighty-four pounds.

On the 1st of October, Captain Sabine's servant having been at some distance from the ships to examine a fox-trap, was pursued by a large white bear, which followed his footsteps the whole way to the ships, where he was wounded by several balls, but made his escape after all. This bear

which was the only one we saw during our stay in Winter Harbour, was observed to be more purely white than any we had before seen, the colour of these animals being generally that of a dirtyish yellow when contrasted with the whiteness of the ice and snow.

Some deer being seen near the ships on the 10th, a party was despatched after them, some of whom having wounded a stag, and being led on by the ardour of pursuit, forgot my order that every person should be on board before sunset, and did not return till late, after we had suffered much apprehension on their account. John Pearson, a marine belonging to the Griper, who was the last that returned on board, had his hands severely frostbitten, having imprudently gone away without mittens, and with a musket in his hand. A party of our people most providentially found him, although the night was very dark, just as he had fallen down a steep bank of snow, and was beginning to feel that degree of torpor and drowsiness which, if indulged, inevitably proves fatal. When he was brought on board his fingers were quite stiff, and bent into the shape of that part of the musket which he had been carrying; and the frost had so far destroyed the animation in his fingers on one hand, that it was necessary to amputate three of them a short time after, notwithstanding all the care and attention paid to him by the medical gentlemen. The effect which exposure to severe frost has in benumbing the mental as well as the corporeal faculties, was very striking in this man, as well as in two of the young gentlemen who returned after dark, and of whom we were anxious to

make inquiries respecting Pearson. When I sent for them into my cabin, they looked wild, spoke thick and indistinctly, and it was impossible to draw from them a rational answer to any of our questions. After being on board for a short time, the mental faculties appeared gradually to return with the returning circulation, and it was not till then that a looker-on could easily persuade himself that they had not been drinking too freely. In order to guard in some measure against the danger of persons losing their way, which was more and more to be apprehended as the days became shorter and the ground more covered with snow, which gives such a dreary sameness to the country, we erected on all the hills within two or three miles of the harbour, finger-posts pointing towards the ships.

I have before remarked that all the water which we made use of while within the polar circle was procured from snow either naturally or artificially dissolved. Soon after the ships were laid up for the winter, it was necessary to have recourse entirely to the latter process, which added materially to the expenditure of fuel during the winter months. The snow for this purpose was dug out of the drifts which had formed upon the ice round the ships, and dissolved in the coppers. We found it necessary always to strain the water thus procured, on account of the sand which the heavy snowdrifts brought from the island, after which it was quite pure and wholesome.

On the 16th it blew a strong gale from the northward, accompanied by such a constant snowdrift, that, although the weather was quite clear overhead, the boathouse at the distance of three or

four hundred yards could scarcely be seen from the ships. On such occasions no person was permitted on any account to leave the ships. Indeed, when this snowdrift occurred, as it frequently did in the winter, with a hard gale and the thermometer very low, I believe that no human being could have remained alive after an hours' exposure to it. In order, therefore, to secure a communication between the two ships, a distance not exceeding half a cable's length, as well as from the ships to the house on shore, a line was kept extended, as a guide from one to the other. The meridian altitude of the sun was observed this day by an artificial horizon, which I noticed from the circumstance of its being the last time we had an opportunity of observing it for about four months.

On the 26th the sun afforded us sufficient light for writing and reading in my cabin, the stern-windows exactly facing the south, from half past nine till half past two; for the rest of the four-and-twenty hours, we lived, of course, by candle-light. Nothing could exceed the beauty of the sky to the southeast and southwest at sunrise and sunset about this period: near the horizon there was generally a rich bluish purple and a bright arch of deep red above, the one mingling imperceptibly with the other.

It now became rather a painful experiment to touch any metallic substance in the open air with the naked hand; the feeling produced by it exactly resembling that occasioned by the opposite extreme of intense heat, and taking off the skin from the part affected. We found it necessary, therefore, to use great caution in handling our sextants and oth-

er instruments, particularly the eye-pieces of telescopes, which, if suffered to touch the face, occasioned an intense burning pain; but this was easily remedied by covering them over with soft leather. Another effect, with regard to the use of instruments, began to appear about this time. Whenever any instrument which had been some time exposed to the atmosphere, so as to be cooled down to the same temperature, was suddenly brought below into the cabins, the vapour was instantly condensed all around it, so as to give the instrument the appearance of smoking, and the glasses were covered almost instantly with a thin coating of ice, the removal of which required great caution, to prevent the risk of injuring them, until it had gradually thawed, as they acquired the temperature of the cabin. When a candle was placed in a certain direction from the instrument with respect to the observer, a number of very minute *spiculae* of snow were also seen sparkling around the instrument, at the distance of two or three inches from it, occasioned, as we supposed, by the cold atmosphere produced by the low temperature of the instrument almost instantaneously congealing into that form the vapour which floated in its immediate neighbourhood.

The 4th of November being the last day that the sun would, independently of the effects of refraction, be seen above our horizon till the 8th of February, an interval of ninety-six days, it was a matter of considerable regret to us that the weather about this time was not sufficiently clear to allow us to see and make observations on the disappearance of that luminary, in order that something

might be attempted towards determining the amount of the atmospheric refraction at a low temperature. But though we were not permitted to take a last farewell, for at least three months, of that cheering orb, "of this great world both eye and soul," we nevertheless felt that this day constituted an important and memorable epoch in our voyage. We had some time before set about the preparations for our winter's amusements; and the theatre being ready, we opened on the 5th November, with the representation of *Miss in her Teens*, which afforded to the men such a fund of amusement as fully to justify the expectations we had formed of the utility of theatrical entertainments under our present circumstances, and to determine me to follow them up at stated periods. I found, indeed, that even the occupation of fitting up the theatre and taking it to pieces again, which employed a number of the men for a day or two before and after each performance, was a matter of no little importance, when the immediate duties of the ship appeared by no means sufficient for that purpose; for I dreaded the want of employment as one of the worst evils that was likely to befall us.

About the time of the sun's leaving us, the wolves began to approach the ships more boldly, howling most piteously on the beach near us, sometimes for hours together, and on one or two occasions coming alongside the ships, when everything was quiet at night; but we seldom saw more than one or two together, and therefore could form no idea of their number. These animals were always very shy of coming near our people; and though evidently suffering much from hunger, never at-

tempted to attack any of them. The white foxes used also to visit the ships at night, and one of these was caught in a trap set under the Griper's bows. The uneasiness displayed by this beautiful little animal during the time of his confinement, whenever he heard the howling of a wolf near the ships, impressed us with the opinion that the latter is in the habit of hunting the fox as his prey.

The temperature of the atmosphere having about this time become considerably lower than before, the cracking of the timbers was very frequent and loud for a time; but generally ceased altogether in an hour or two after this fall had taken place in the thermometer, and did not occur again at the same temperature during the winter. The wind blowing fresh from the northward, with a heavy snowdrift, made the ship very cold below; so that the breath and other vapour accumulated during the night in the bed places and upon the beams, and then immediately froze; hence it often occupied all hands for two or three hours during the day to scrape the ice away, in order to prevent the bedding from becoming wet by the increase of temperature occasioned by the fires. It was therefore found necessary to keep some of the fires in between decks at night, when the thermometer was below -15° or -20° in the open air, especially when the wind was high. To assist in keeping the lower decks warm, as well as to retard, in some slight degree, the formation of ice immediately in contact with the ships' bends, we banked the snow up against their sides as high as the main chains; and canvass screens were nailed round all the hatchways on the lower deck.

The stars of the second magnitude in Ursa Major were just perceptible to the naked eye a little after noon this day, and the Aurora Borealis appeared faintly in the southwest at night. About this time our medical gentlemen began to remark the extreme difficulty with which sores of every kind healed; a circumstance that rendered it the more necessary to be cautious in exposing the men to frostbites, lest the long inactivity and want of exercise during the cure of sores, in other respects trifling, should produce serious effects upon the general health of the patients.

During the following fortnight we were chiefly occupied in observing various phenomena in the heavens, the vivid coruscations of the Aurora Borealis, the falling of meteors, and in taking lunar distances; but the difficulty of making observations in this climate is inconceivably great; on one occasion the mercury of the artificial horizon froze into a solid mass.

About this part of the winter we began to experience a more serious inconvenience from the bursting of the lemon-juice bottles by frost, the whole contents being frequently frozen into a solid mass, except a small portion of highly concentrated acid in the centre, which in most instances was found to have leaked out, so that when the ice was thawed it was little better than water. This evil increased to a very alarming degree in the course of the winter: some cases being opened in which more than two thirds of the lemon-juice was thus destroyed, and the remainder rendered nearly inefficient.

It was at first supposed that this accident might

have been prevented by not quite filling the bottles, but it was afterward found that the corks flying out did not save them from breaking. We observed that the greatest damage was done in those cases which were stowed nearest to the ship's side, and we therefore removed all the rest amidships; a precaution which, had it been sooner known and adopted, would probably have prevented at least a part of the mischief. The vinegar also became frozen in the casks in the same manner, and lost a great deal of its acidity when thawed. This circumstance conferred an additional value on a few gallons of very highly concentrated vinegar, which had been sent out on trial upon this and the preceding voyage, and which, when mixed with six or seven times its own quantity of water, was sufficiently acid for every purpose. This vinegar, when exposed to the temperature of 25° below zero, congealed only into a consistence like that of the thickest honey, but was never sufficiently hard to break any vessel which contained it. There can be no doubt, therefore, that on this account, as well as to save stowage, this kind of vinegar should exclusively be used in these regions; and for similar reasons of still greater importance, the lemon-juice should be concentrated.

We had now reached the shortest day, Wednesday, the 22d, and such was the occupation which we had hitherto contrived to find during the first half of our long and gloomy winter, that the quickness with which it had come upon us was a subject of general remark. So far, indeed, were we from wanting that occupation of which I had been apprehensive, especially among the men, that it acci-

dentally came to my knowledge about this period that they complained of not having time to mend their clothes. This complaint I was as glad to hear as desirous to rectify; and I therefore ordered that, in future, one afternoon in each week should be set aside for that particular purpose.

The circumstances of our situation being such as have never before occurred to the crews of any of his majesty's ships, it may not, perhaps, be considered wholly uninteresting to know in what manner our time was thus so fully occupied throughout the long and severe winter which it was our lot to experience, and particularly during a three months' interval of nearly total darkness.

The officers and quartermasters were divided into four watches, which were regularly kept as at sea, while the remainder of the ships' company were allowed to enjoy their night's rest undisturbed. The hands were turned up at a quarter before six, and both decks were well rubbed with stones and warm sand before eight o'clock, at which time, as usual at sea, both officers and men went to breakfast. Three quarters of an hour being allowed after breakfast for the men to prepare themselves for muster, we then beat to divisions punctually at a quarter past nine, when every person on board attended on the quarter deck, and a strict inspection of the men took place as to their personal cleanliness, and the good condition, as well as sufficient warmth of their clothing. The reports of the officers having been made to me, the people were then allowed to walk about, or, more usually, to run round the upper deck, while I went down to examine the state of that below. The

state of this deck may be said, indeed, to have constituted the chief source of our anxiety, and to have occupied by far the greatest share of our attention at this period. Whenever any dampness appeared, or, what more frequently happened, any accumulation of ice had taken place during the preceding night, the necessary means were immediately adopted for removing it; in the former case usually by rubbing the wood with cloths, and then directing the warm airpipe towards the place; and in the latter by scraping off the ice, so as to prevent its wetting the deck by any accidental increase of temperature. In this respect the bed-places were particularly troublesome; the inner partition, or that next the ship's side, being almost invariably covered with more or less dampness or ice, according to the temperature of the deck during the preceding night. This inconvenience might, to a great degree, have been avoided by a sufficient quantity of fuel to keep up two good fires on the lower deck throughout the twenty-four hours; but our stock of coals would by no means permit this, bearing in mind the possibility of our spending a second winter within the Arctic circle; and this comfort could only, therefore, be allowed on a few occasions during the most severe part of the winter.

In the course of my examination of the lower deck I had always an opportunity of seeing those few men who were on the sick list, and of receiving from Mr. Edwards a report of their respective cases; as also of consulting that gentleman as to the means of improving the warmth, ventilation, and general comfort of the inhabited parts of the

ship. Having performed this duty, we returned to the upper deck, where I personally inspected the men; after which they were sent out to walk on shore, when the weather would permit, till noon, when they returned on board to their dinner. When the day was too inclement for them to take this exercise, they were ordered to run round and round the deck, keeping step to the tune of an organ, or, not unfrequently, to a song of their own singing. Among the men were a few who did not at first quite like this systematic mode of taking exercise; but when they found that no plea except that of illness was admitted as an excuse, they not only willingly and cheerfully complied, but made it the occasion of much humour and frolic among themselves.

The officers, who dined at two o'clock, were also in the habit of occupying one or two hours in the middle of the day in rambling on shore, even in our darkest period, except when a fresh wind and a heavy snowdrift confined them within the housing of the ships. It may well be imagined that, at this period, there was but little to be met with in our walks on shore which could either amuse or interest us. The necessity of not exceeding the limited distance of one or two miles, lest a snowdrift, which often rises very suddenly, should prevent our return, added considerably to the dull and tedious monotony which day after day presented itself. To the southward was the sea, covered with one unbroken surface of ice, uniform in its dazzling whiteness, except that, in some parts, a few hummocks were seen thrown up somewhat above the general level. Nor did the land offer much greater

variety, being almost entirely covered with snow, except here and there a brown patch of bare ground in some exposed situations, where the wind had not allowed the snow to remain. When viewed from the summit of the neighbouring hills, on one of those calm and clear days which not unfrequently occurred during the winter, the scene was such as to induce contemplations which had, perhaps, more of melancholy than of any other feeling. Not an object was to be seen on which the eye could long rest with pleasure, unless when directed to the spot where our ships lay and where our little colony was planted. The smoke which there issued from the several fires, affording a certain indication of the presence of man, gave a partial cheerfulness to this part of the prospect; and the sound of voices, which, during the cold weather, could be heard at a much greater distance than usual, served now and then to break the silence which reigned around us; a silence far different from that peaceable composure which characterizes the landscape of a cultivated country; it was the deathlike stillness of the most dreary desolation, and the total absence of animated existence. Such, indeed, was the want of objects to afford relief to the eye or amusement to the mind, that a stone of more than usual size appearing above the snow in the direction in which we were going, immediately became a mark on which our eyes were unconsciously fixed, and towards which we mechanically advanced.

We had frequent occasion, in our walks on shore to remark the deception which takes place in estimating the distance and magnitude of objects when viewed over an unvaried surface of snow. It was

not uncommon for us to direct our steps towards what we took for a large mass of stone at the distance of half a mile from us, but which we were able to take up in our hands after one minute's walk. This was more particularly the case when ascending the brow of a hill, nor did we find that the deception became less on account of the frequency with which we experienced its effects.

In the afternoon the men were usually occupied in drawing and knotting yarns, and in making points and gaskets; a never-failing resource where mere occupation is required, and which it was necessary to perform entirely on the lower deck, the yarns becoming so hard and brittle, when exposed on deck to the temperature of the atmosphere, as to be too stiff for working, and very easily broken. I may in this place remark, that our lower rigging became extremely slack during the severity of the winter, and gradually tightened again as the spring returned: effects the very reverse of those which we had anticipated, and which I can only account for by the extreme dryness of the atmosphere in the middle of winter, and the subsequent increase of moisture.

At half past five in the evening the decks were cleared up, and at six we again beat to divisions, when the same examination of the men and of their berths and bed-places took place as in the morning; the people then went to their supper, and the officers to tea. After this time the men were permitted to amuse themselves as they pleased, and games of various kinds, as well as dancing and singing occasionally, went on upon the lower deck till nine o'clock, when they went to bed and their lights

were extinguished. In order to guard against accidents by fire, where so many fires and lights were necessarily in use, the quartermasters visited the lower deck every half hour during the night, and made their report to the officers of the watches that all was, in this respect, safe below; and to secure a ready supply of water in case of fire, a hole was cut twice a day in the ice, close alongside of each ship. It is scarcely necessary to add, that the evening occupations of the officers were of a more rational kind than those which engaged the attention of the men. Of these, reading and writing were the principal employments, to which were occasionally added a game of chess, or a tune on the flute or violin, till half past ten, about which time we all retired to rest.

Such were the employments which usually occupied us for six days in the week, with such exceptions only as circumstances at the time suggested. On Sundays divine service was invariably performed, and a sermon read on board both ships; the prayer appointed to be daily used at sea being altered, so as to adapt it to the service in which we were engaged, the success which had hitherto attended our efforts, and the peculiar circumstances under which we were at present placed. The attention paid by the men to the observance of their religious duties was such as to reflect upon them the highest credit, and tended in no small degree to the preservation of that regularity and good conduct for which, with very few exceptions, they were invariably distinguished.

Our theatrical entertainments took place regularly once a fortnight, and continued to prove a source

of infinite amusement to the men. Our stock of plays was so scanty, consisting of one or two odd volumes, which happened accidentally to be on board, that it was with difficulty we could find the means of varying the performances sufficiently; our authors, therefore, set to work, and produced, as a Christmas piece, a musical entertainment, expressly adapted to our audience, and having such a reference to the service on which we were engaged, and the success we had so far experienced, as at once to afford a high degree of present recreation, and to stimulate, if possible, the sanguine hopes which were entertained by all on board, of the complete accomplishment of our enterprise. We were at one time apprehensive that the severity of the weather would prevent the continuance of this amusement, but the perseverance of the officers overcame every difficulty; and, perhaps for the first time since theatrical entertainments were invented, more than one or two plays were performed on board the *Hecla* with the thermometer below zero on the stage.

The *North Georgia Gazette*, which I have already mentioned, was a source of great amusement, not only to the contributors, but to those who, from diffidence of their own talents or other reasons, could not be prevailed on to add their mite to the little stock of literary composition which was weekly demanded; for those who declined to write were not unwilling to read, and more ready to criticise than those who wielded the pen; but it was that good-humoured sort of criticism that could not give offence. The subjects handled in this pa-

per were of course various, but generally applicable to our own situation.

The return of each successive day had been always very decidedly marked by a considerable twilight for some time about noon, that on the shortest day being sufficient to enable us to walk out very comfortably for about two hours.* There was usually, in clear weather, a beautiful arch of bright red light overspreading the southern horizon for an hour or two before and after noon, the light increasing, of course, in strength, as the sun approached the meridian. Short as the day now was, if, indeed, any part of the twenty-four hours could be properly called by that name, the reflection of light from the snow, aided occasionally by a bright moon, was at all times sufficient to prevent our experiencing, even under the most unfavourable circumstances, anything like the gloomy night which occurs in more temperate climates. Especial care was taken, during the time the sun was below the horizon, to preserve the strictest regularity in the time of our meals, and in the various occupations which engaged our attention during the day; and this, together with the gradual and imperceptible manner in which the days had shortened, prevented this kind of life, so novel to us in reality, from appearing very inconvenient, or, indeed, like anything out of the common way. It must be confessed, however, that we were not sorry to arrive, without any serious suffering, at the

* It will, perhaps, give the best idea of the power of the sun's light afforded us on this day, to state, that we could, at noon, read with tolerable ease the same sized type as that in which this note is printed; but this could only be done by turning the book directly towards the south

shortest day ; and we watched, with no ordinary degree of pleasure, the slow approach of the returning sun.

On Christmas day the weather was raw and cold, with a considerable snowdrift, though the wind was only moderate from the N. W. ; but the snow which falls during the severe winter of this climate is composed of spiculæ so extremely minute, that it requires very little wind to raise it and carry it along. To mark the day in the best manner which circumstances would permit divine service was performed on board the ships ; and I directed a small increase in the men's usual proportion of fresh meat as a Christmas dinner, as well as an additional allowance of grog, to drink the health of their friends in England. The officers also met at a social and friendly dinner, and the day passed with much of the same kind of festivity by which it is usually distinguished at home ; and, to the credit of the men be it spoken, without any of that disorder by which it is too often observed by seamen. A piece of English roast-beef, which formed part of the officers' dinner, had been on board since the preceding May, and preserved without salt during that period merely by the antiseptic powers of a cold atmosphere.

A great many frostbites occurred about this time, 30th, principally in the men's feet, even when they had been walking quickly on shore for exercise. On examining their boots, Mr. Edwards remarked, that the stiffness of the thick leather of which they were made was such as to cramp the feet, and prevent the circulation from going on freely ; and that this alone was sufficient to account for their feet

having been frostbitten. Being very desirous of avoiding these accidents, which, from the increased sluggishness with which the sores healed, were more and more likely to affect the general health of the patients by long confinement, I directed a pair of canvass boots, lined with blanketing or some other woollen stuff, to be made for each man, using raw hide as soles: this completely answered the desired purpose, as scarcely any frostbites in the feet afterward occurred, except under circumstances of very severe exposure.

CHAPTER VI.

First Appearance of Scurvy.—The Aurora Borealis and other Meteorological Phenomena.—Visits of the Wolves.—Reappearance of the Sun.—Extreme low Temperature.—Destruction of the House on Shore by Fire.—Severe Frostbites occasioned by this Accident.

JANUARY 1, 1820.—I received this morning the first unpleasant report of the scurvy having made its appearance among us: Mr. Scallon, the gunner of the Hecla, had for some days past been complaining of pains in his legs, which Mr. Edwards at first took to be rheumatic, but which, together with the appearance of his gums, now left no doubt of the symptoms being scorbutic. It is so uncommon a thing for this disease to make its first appearance among the officers, that Mr. Edwards was naturally curious to inquire into the cause of it; and

at length discovered that Mr. Scallon's bedding was in so damp a state, in consequence of the deposite of moisture in his bed-place, which I have before mentioned, as to leave no doubt that to this circumstance, as the immediate exciting cause, his illness might justly be attributed. The difficulty of preventing this deposite of moisture, and the consequent accumulaton of ice, was much greater in the officers' bed-places than in those of the men, in consequence of the former being necessarily placed in close contact with the ship's sides, and forming an immediate communication, as it were, with the external atmosphere; whereas in the latter there was a vacant interval of eighteen inches in width interposed between them. To prevent as much as possible, therefore, the injurious effects of this evil upon the health of the officers, I appointed certain days for the airing of their bedding by the fires, as well as for that of the ships' companies. Every attention was paid to Mr. Scallon's case by the medical gentlemen, and all our anti-scorbutics were put in requisition for his recovery: these consisted principally of preserved vegetable soups, lemon-juice, and sugar, pickles, preserved currants and gooseberries, and spruce beer. I began also, about this time, to raise a small quantity of mustard and cress in my cabin, in small shallow boxes filled with mould, and placed along the stovepipe; by these means, even in the severity of winter, we could generally ensure a crop at the end of the sixth or seventh day after sowing the seed, which, by keeping several boxes at work, would give to two or three scorbutic patients nearly an ounce of salad each daily, even though the necessary economy in

our coals did not allow of the fire being kept in at night. The mustard and cress thus raised were necessarily colourless, from the privation of light; but, as far as we could judge, they possessed the same pungent aromatic taste as if grown under ordinary circumstances. So effectual were these remedies in Mr. Scallon's case, that, on the ninth evening from the attack, he was able to walk about on the lower deck for some time, and he assured me that he could then "run a race."

At noon on the 7th, the temperature of the atmosphere had got down to 49° below zero, being the greatest degree of cold which we had yet experienced; but the weather being quite calm, we walked on shore for an hour without inconvenience, the sensation of cold depending much more on the degree of wind at the time than on the absolute temperature of the atmosphere as indicated by the thermometer. In several of the accounts given of those countries in which an intense degree of natural cold is experienced, some effects are attributed to it which certainly did not come under our observation in the course of this winter. The first of these is the dreadful sensation said to be produced on the lungs, causing them to feel as if torn asunder when the air is inhaled at a very low temperature. No such sensation was ever experienced by us, though in going from the cabins into the open air, and *vice versâ*, we were constantly in the habit for some months of undergoing a change of from 80° to 100° , and, in several instances, 120° of temperature in less than one minute; and, what is still more extraordinary, not a single inflammatory complaint, beyond a slight cold, which was

cured by common care in a day or two, occurred during this particular period. The second is, the vapour with which the air of an inhabited room is charged, condensing into a shower of snow immediately on the opening of a door or window communicating with the external atmosphere. This goes much beyond anything that we had an opportunity of observing. What happened with us was simply this: on the opening of the doors at the top and bottom of our hatchway ladders, the vapour was immediately condensed, by the sudden admission of the cold air, into a visible form, exactly resembling a very thick smoke, which settled on all the panels of the doors and bulkheads, and immediately froze, by which means the latter were covered with a thick coating of ice, which it was necessary frequently to scrape off; but we never, to my knowledge, saw the conversion of the vapour into snow during its fall.

On the evening of the 15th, the atmosphere being clear and serene, we were gratified by a sight of the only very brilliant and diversified display of Aurora Borealis which occurred during the whole winter. I believe it to be almost impossible for words to give an idea of the beauty and variety which this magnificent phenomenon displayed.

About this time it had been remarked, that a white setter dog had left the Griper for several nights past at the same time, and had regularly returned after some hours' absence. As the daylight increased, we had frequent opportunities of seeing him in company with a she-wolf, with which he kept up an almost daily intercourse for several weeks, till at length he returned no more to the

ships ; having either lost his way by rambling to too great a distance, or, what is more likely, perhaps, been destroyed by the male wolves. Some time after, a large dog of mine, which was also getting into the habit of occasionally remaining absent for some time, returned on board a good deal lacerated and covered with blood, having no doubt maintained a severe encounter with a male wolf, which we traced to a considerable distance by the tracks on the snow. An old dog, of the Newfoundland breed, that we had on board the Hecla, was also in the habit of remaining out with the wolves for a day or two together ; and we frequently watched them keeping company on the most friendly terms.

A wolf, which crossed the harbour close to the ships on the 25th, was observed to be almost entirely white, his body long and extremely lean, standing higher on his legs than any of the Esquimaux dogs, but otherwise much resembling them ; his tail was long and bushy, and always hanging between his legs, and he kept his head very low in running. It is extraordinary that we could never succeed in killing or catching one of these animals, though we were for months almost constantly endeavouring to do so.

On the 1st and 2d of February the weather was rather hazy, so that the sun could not have been seen had it been above the horizon ; but the 3d was a beautifully clear and calm day. At eight A.M. a cross, consisting of the usual vertical and horizontal rays, was seen about the moon. At twenty minutes before apparent noon, the sun was seen from the Hecla's main-top, at the height of fifty-

one foot above the sea, being the first time that this luminary had been visible to us since the 11th of November, a period of eighty-four days, being twelve days less than the time of its remaining actually beneath the horizon, independently of the effects of atmospherical refraction. On ascending the main-top, I found the sun to be plainly visible over the land to the south; but at noon there was a dusky sort of cloud hanging about the horizon, which prevented our seeing anything like a defined limb, so as to measure or estimate its altitude correctly.

At noon on the 7th we had the first clear view of the sun which we had yet enjoyed since its reappearance above our horizon, and an indistinct parhelion, or mock sun, slightly prismatic, was seen on the eastern side of it, at the distance of 22° .

There was now sufficient daylight, from eight o'clock till four, to enable us to perform with great facility any work outside the ships. I was not sorry to commence upon some of the occupations more immediately connected with the equipment of the ships for sea than those to which we had hitherto been obliged to have recourse as mere employment. We therefore began this day to collect stones for ballast, of which it was calculated that the *Hecla* would require in the spring nearly seventy tons, besides twenty tons of additional water, to make up for the loss of weight by the expenditure of provisions and stores. These stones were brought down on sledges about half a mile to the beach, where they were broken into a convenient size for stowage, and then weighed in scales erected on the beach for the purpose; thus afford-

ing to the men a considerable quantity of bodily exercise whenever the weather would permit them to be so employed.

The distance at which sounds were heard in the open air, during the continuance of intense cold, was so great as constantly to afford matter of surprise to us, notwithstanding the frequency with which we had occasion to remark it. We have, for instance, often heard people distinctly conversing, in a common tone of voice, at the distance of a mile; and to-day I heard a man singing to himself as he walked along the beach, at even a greater distance than this. Another circumstance also occurred to-day, which may perhaps be considered as worthy of notice. Lieutenant Beechey, and Messrs. Beverly and Fisher, in the course of a walk which led them to a part of the harbour, about two miles directly to leeward of the ships, were surprised by suddenly perceiving a smell of smoke, so strong as even to impede their breathing, till, by walking on a little farther, they got rid of it. This circumstance shows to what a distance the smoke from the ships was carried horizontally, owing to the difficulty with which it rises at a very low temperature of the atmosphere.

From four P.M. on the 14th till half past seven on the following morning, being an interval of fifteen hours and a half, during which time the weather was clear and nearly calm, a thermometer, fixed on a pole between the ships and the shore, never rose above -54° , and was once during that interval, namely, at six in the morning, as low as -55° . During the lowest temperature above mentioned, which was the most intense degree of

cold marked by the spirit-thermometer during our stay in Winter Harbour, not the slightest inconvenience was suffered from exposure to the open air by a person well clothed, as long as the weather was perfectly calm; but, in walking against a very light air of wind, a smart sensation was experienced all over the face, accompanied by a pain in the middle of the forehead, which soon became rather severe. We amused ourselves in freezing some mercury during the continuance of this cold weather, and by beating it out on an anvil previously reduced to the temperature of the atmosphere; it did not appear to be very malleable when in this state, usually breaking after two or three blows from the hammer.

The increased length of the day, and the cheering presence of the sun for several hours above the horizon, induced me, notwithstanding the severity of the weather, to open the dead-lights of my stern windows, in order to admit the daylight, of which, in our occupations below, we had entirely been deprived for more than four months. I had soon, however, occasion to find that this change was rather premature, and that I had not rightly calculated on the length of the winter in Melville Island. The *Hecla* was fitted with double windows in her stern, the interval between the two sashes being about two feet; and within these some curtains of baize had been nailed close in the early part of the winter. On endeavouring now to remove the curtains, they were found to be so strongly cemented to the windows by the frozen vapour collected between them, that it was necessary to cut them off in order to open the windows; and from

the space between the double sashes we removed more than twelve large buckets full of ice or frozen vapour, which had accumulated in the same manner.

About noon on the 16th, a parhelion, faintly prismatic, appeared on each side of the sun, continuing only for half an hour. Notwithstanding the low temperature of the external atmosphere, the officers contrived to act, as usual, the play announced for this evening; but it must be confessed that it was almost too cold for either the actors or the audience to enjoy it, especially for those of the former who undertook to appear in female dresses.

In the constant hope that each succeeding day would produce some amendment in the weather, we endeavoured contentedly to put up with the cold, which, however, continued to be so intense in the cabin for several weeks after this, that it was impossible to sit there without being warmly wrapped up; and it was not uncommon for us, at this period, to reverse the usual order of things, by throwing off our great coats when we went on deck to warm ourselves by exercise (the only mode we had of doing so), and immediately resuming them on coming below.

With our present temperature, the breath of a person at a little distance looked exactly like the smoke of a musket just fired, and that of a party of men employed upon the ice to-day resembled a thick white cloud.

At a quarter past ten on Thursday, the 24th, while the men were running round the decks for exercise, and were on that account fortunately well

clothed, the house on shore was discovered to be on fire. All the officers and men of both ships instantly ran up to extinguish it; and having, by great exertion, pulled off the roof with ropes, and knocked down a part of the sides, so as to allow snow to be thrown upon the flames, we succeeded in getting it under after three quarters of an hour, and fortunately before the fire had reached that end of the house where the two clocks, together with the transit and other valuable instruments, were standing in their cases. Having removed these, and covered the ruins with snow, to prevent any remains of fire from breaking out again, we returned on board till more temperate weather should enable us to dig out the rest of the things, among which nothing of any material consequence was subsequently found to have suffered injury; and, having mustered the ships' companies to see that they had put on dry clothes before going to dinner, they were employed during the rest of the day in drying those which had been wet. The appearance which our faces presented at the fire was a curious one, almost every nose and cheek having become quite white with frostbites in five minutes after being exposed to the weather; so that it was deemed necessary for the medical gentlemen, together with some others appointed to assist them, to go constantly round while the men were working at the fire, and to rub with snow the parts affected, in order to restore animation. Notwithstanding this precaution, which, however, saved many frostbites, we had an addition of no less than sixteen men to the sick lists of both ships in consequence of this accident. Among these there

were four or five cases which kept the patients confined for several weeks ; but John Smith, of the artillery, who was Captain Sabine's servant, and who, together with Sergeant Martin, happened to be in the house at the time the fire broke out, was unfortunate enough to suffer much more severely. In their anxiety to save the dipping-needle, which was standing close to the stove, and of which they knew the value, they immediately ran out with it ; and Smith, not having time to put on his gloves, had his fingers in half an hour so benumbed and the animation so completely suspended, that on his being taken on board by Mr. Edwards, and having his hands plunged into a basin of cold water, the surface of the water was immediately frozen by the intense cold thus suddenly communicated to it ; and, notwithstanding the most humane and unremitting attention paid to them by the medical gentlemen, it was found necessary, some time after, to resort to the amputation of a part of four fingers on one hand and three on the other.

CHAPTER VII.

More temperate Weather.—House rebuilt.—Quantity of Ice collected on the Hecla's lower Deck.—Meteorological Phenomena.—Conclusion of Theatrical Entertainments.—Increased Sickness on board the Griper.—Clothes first dried in the open Air.—Remarkable Halos and Parhelia.—Snow Blindness.—Cutting the Ice round the Ships, and other Occurrences to the close of May.

BEFORE sunrise on the morning of the 1st of March, Lieutenant Beechey remarked so much bright red light near the southeastern horizon, that he constantly thought the sun was rising nearly half an hour before it actually appeared; there was a column of light above the sun similar to those which we had before seen. The day being clear and moderate, a party of men were employed in digging out the things which were buried in the ruins; the clocks were removed on board for examination, and preparations were made to rebuild the house for their reception.

The 5th of March was the most mild and pleasant day we had experienced for several weeks, and after divine service had been performed, almost all the officers and men in both ships were glad to take advantage of it, by enjoying a long walk upon the neighbouring hills. The weather had been hazy, with light snow and some clouds in the morning; but the latter gradually dispersed after noon, affording us the first day to which we could attach the idea of spring.

We continued to enjoy the same temperature and enlivening weather on the 7th, and now began to flatter ourselves in earnest that the season had taken that favourable change for which we had so long been looking with extreme anxiety and impatience. This hope was much strengthened by a circumstance which occurred to-day, and which, trifling as it would have appeared in any other situation than ours, was to us a matter of no small interest and satisfaction. This was no other than the thawing of a small quantity of snow in a favourable situation upon the black paintwork of the ship's stern, which exactly faced the south; being the first time that such an event had occurred for more than five months.

The severe weather which, until the last two or three days, we had experienced, had been the means of keeping in a solid state all the vapour which had accumulated and frozen upon the ship's sides on the lower deck. As long as it continued in this state, it did not prove a source of annoyance, especially as it had no communication with the bed-places. The late mildness of the weather, however, having caused a thaw to take place below, it now became necessary immediately to scrape off the coating of ice, and it will, perhaps, be scarcely credited, that we this day removed about one hundred buckets full, each containing from five to six gallons, being the accumulation which had taken place in an interval of less than four weeks. It may be observed, that this vapour must principally have been produced from the men's breath, and from the steam of their victuals during meals, that from the coppers being effectually carried on deck by the screen which I have before mentioned.

On the 9th it blew a hard gale from the northward and westward, raising a snowdrift, which made the day almost as inclement as in the midst of winter. The wind very suddenly ceased in the evening, and while the atmosphere near the ships was so serene and undisturbed that the smoke rose quite perpendicularly, we saw the snowdrift on the hills, at one or two miles' distance, whirled up into the air, in columns several hundred feet high, and carried along by the wind, sometimes to the north, and at others in the opposite direction. The snow thus raised at times resembled waterspouts, but more frequently appeared like smoke issuing from the tops of the hills, and as such was at first represented to me.

It blew a strong breeze from the N.b.W., with a heavy snowdrift, on the 12th, which continued, with little intermission, till near noon on the 14th; affording us a convincing proof that the hopes with which we had flattered ourselves of the speedy return of spring were not yet to be accomplished.

On the 16th, there being little wind, the weather was again pleasant and comfortable, though the thermometer remained very low.

This evening the officers performed the farces of the *Citizen* and the *Mayor of Garratt*, being the last of our theatrical amusements for this winter, the season having now arrived when there would no longer be a want of occupation for the men, and when it became necessary also to remove a part of the roofing to admit light to the officers' cabins. Our poets were again set to work on this occasion, and an appropriate address was spoken on the closing of the North Georgia Theatre, than which we

may, without vanity, be permitted to say, none had ever done more real service to the community for whose benefit it was intended.

On the 23d we found, by digging a hole in the ice, in the middle of the harbour, where the depth of water was four fathoms and a quarter, that its thickness was six feet and a half, and the snow on the surface of it eight inches deep. This may be considered a fair specimen of the average formation of ice in this neighbourhood since the middle of the preceding September: and as the freezing process did not stop for six weeks after this, the produce of the whole winter may, perhaps, be reasonably taken at seven, or seven and a half feet. In chopping this ice with an axe the men found it very hard and brittle, till they arrived within a foot of the lower surface, where it became soft and spongy.

Being extremely anxious to get rid, as early as possible, of the drying of our washed clothes upon the lower deck, I had to-day a silk handkerchief washed and hung up under the stern, in order to try the effect of the sun's rays upon it. In four hours it became thoroughly dry, the thermometer in the shade being from -18° to -6° at the time. This was the first article that had been dried without artificial heat for six months, and it was yet another month before flannel could be dried in the open air. When this is considered, as well as that, during the same period, the airing of the bedding, the drying of the bed-places, and the ventilation of the inhabited parts of the ship, were wholly dependant on the same means, and this with a very limited supply of fuel, it may, perhaps be conceived,

in some degree, what unremitting attention was necessary to the preservation of health, under circumstances so unfavourable and even prejudicial.

The morning of April 27th being very fine, and the thermometer at $+6^{\circ}$, the ship's company's bedding was hung up to air, between the fore and main rigging, being the first time we had ventured to bring it from the lower deck for nearly eight months. While it was out, the berths and bed-places were fumigated with a composition of gun-powder mixed with vinegar, and known familiarly by the name of *devils*; an operation which had been regularly gone through once a week during the winter.

For the last three or four days of April the snow on the black cloth of our housing had begun to thaw a little during a few hours in the middle of the day, and on the 30th so rapid a change took place in the temperature of the atmosphere, that the thermometer stood at the freezing, or, as it may more properly be termed in this climate, the thawing point, being the first time that such an event had occurred for nearly eight months, or since the 9th of the preceding September. This temperature was to our feelings, so much like that of summer, that I was under the necessity of using my authority to prevent the men from making such an alteration in their clothing as might have been attended with very dangerous consequences. The thermometer had ranged from -32° to $+32^{\circ}$ in the course of twenty days. There was, at this period, more snow upon the ground than at any other time of the year, the average depth on the lower parts of the land being four or five inches, but much less

upon the hills; while in the ravines a very large quantity had been collected. The snow at this time became so soft, from the influence of the sun upon it, as to make walking very laborious and unpleasant.

The fine and temperate weather with which the month of April had concluded, induced Captain Sabine to set the clocks going, in order to commence his observations for the pendulum, and he now took up his quarters entirely on shore for that purpose. On the first of May, however, it blew a strong gale from the northward, which made it impossible to keep up the desired temperature in the house: and so heavy was the snowdrift, that in a few hours the house was nearly covered, and we were obliged to communicate with Captain Sabine and his attendants through a small window, from which the snow was, with much labour, cleared away, the door being quite inaccessible. We saw the sun at midnight for the first time this season.

The gale and snowdrift continued on the following day, when we had literally to dig out the sentries, who attended the fire at the house, in order to have them relieved.

On the 6th, the thermometer rose no higher than $+8\frac{1}{2}^{\circ}$ during the day; but, as the wind was moderate, and it was high time to endeavour to get the ships once more fairly afloat, we commenced the operation of cutting the ice about them. In order to prevent the men suffering from wet and cold feet, a pair of strong boots and boot-stockings were on this occasion served to each.

On the 15th, two or three coveys of ptarmigan were seen, after which they became more and more

numerous, and a brace or two were almost daily procured for the sick, for whose use they were exclusively reserved. As it was of the utmost importance, under our present circumstances, that every ounce of game which we might thus procure should be served in lieu of other meat, I now renewed the orders formerly given, that every animal killed was to be considered as public property; and, as such, to be regularly issued like any other kind of provision, without the slightest distinction between the messes of the officers and those of the ships' companies.

Some of our men having, in the course of their shooting excursions, been exposed for several hours to the glare of the sun and snow, returned at night much affected with that painful inflammation in the eyes occasioned by the reflection of intense light from the snow, aided by the warmth of the sun, and called in America "snow blindness." This complaint, of which the sensation exactly resembles that produced by large particles of sand or dust in the eyes, is cured by some tribes of American Indians by holding them over the steam of warm water; but we found a cooling wash, made by a small quantity of acetate of lead mixed with cold water, more efficacious in relieving the irritation, which was always done in three or four days, even in the most severe cases, provided the eyes were carefully guarded from the light. As a preventive of this complaint, a piece of black crape was given to each man, to be worn as a kind of short veil attached to the hat, which we found to be very serviceable. A still more convenient mode, adopted by some of the officers, was found equally effica-

cious; this consisted in taking the glasses out of a pair of spectacles, and substituting black or green crape, the glass having been found to heat the eyes and increase the irritation.

On the 17th we completed the operation of cutting the ice round the Hecla, which was performed in the following manner. We began by digging a large hole under the stern, being the same as that in which the tide-pole was placed, in order to enter the saw, which occupied us nearly two days, only a small number of men being able to work at it. In the mean time, all the snow and rubbish was cleared away from the ship's side, leaving only the solid ice to work upon; and a trench, two feet wide, was cut the whole length of the starboard side, from the stem to the rudder, keeping within an inch or two of the bends, and taking care here and there to leave a dike, to prevent the water which might ooze into one part from filling up the others in which the men were working. In this manner was the trench cut with axes, to the depth of about four feet and a half, leaving only eighteen inches for the saws to cut, except in those places where the dikes remained. The saw, being then entered in the hole under the stern, was worked in the usual manner, being suspended by a triangle made of three spars; one cut being made on the outer part of the trench, and a second within an inch or two of the bends, in order to avoid injuring the planks. A small portion of ice being broken off now and then by bars, handspikes, and ice-chisels, floated to the surface, and was hooked out by piecemeal. This operation was a cold and tedious one, and required nine days to complete it. When the workmen had this morning

completed the trench within ten or twelve feet of the stern, the ship suddenly disengaged herself from the ice, to which she had before been firmly adhering on the larboard side, and rose in the water about ten inches abaft, and nearly eighteen inches forward, with a considerable surge. This circumstance it was not difficult to explain. In the course of the winter, the strong eddy-winds about the ships had formed round them a drift of snow seven or eight feet deep in some parts, and perhaps weighing a hundred tons; by which the ice, and the ships with it, were carried down much below the natural level at which they would otherwise have floated. In the mean time the ships had become considerably lighter, from the expenditure of several months' provisions; so that, on both these accounts, they had naturally a tendency to rise in the water as soon as they were set at liberty.

A party of hands were occupied in breaking and weighing the stones for ballast, while others were getting out the sails and boats; and our carpenters, armorers, coopers, and sailmakers having each their respective employments, our little colony now presented the most busy and bustling scene that can be imagined. It was found necessary to caulk every part of the upper works, as well as all the decks, the seams having been so much opened by the frost as to require at least one, and in many parts two threads of oakum, though the ship had scarcely ever laboured at all since she was last caulked. I also at this time laid out a small garden, planting it with radishes, onions, mustard, and cress; and a similar attempt was made by Lieutenant Liddon; but, notwithstanding every care and

attention which could be paid to it, this experiment may be said to have wholly failed, the radishes not exceeding an inch in length by the latter end of July, and the other seeds being altogether thrown away. I may remark, however, that some common ships' peas, which were sown by our people for their amusement, were found to thrive so well, that, had I been sooner aware of it, a great quantity of the leaves at least of this vegetable might have been grown, which, when boiled and eaten as greens, would have been no small treat to persons deprived of fresh vegetable substance for more than ten months.

Having considered that an examination of the extent and productions of the island might be conducive to the improvement of the geography and natural history of these regions, and the good state of health enjoyed by the crews permitting a certain number of men to be spared from each ship during their equipment for sea, I now determined to undertake a journey into the interior for this purpose, accompanied by a certain number of officers and men who volunteered their services on the occasion; and the 1st of June was fixed for our departure.

Early on the morning of the 24th Mr. Allison reported that he had felt a few drops of rain fall upon his face, an event which we had scarcely dared to anticipate so soon, but which was hailed with much satisfaction, as nothing appears to be so effectual as rain in producing the dissolution of the ice. The clouds had a watery appearance throughout the day, and at half past eight in the evening we were agreeably surprised by a smart shower of rain, which was shortly after succeeded by several others.

Early on the morning of the 29th the wind increased to a fresh gale from the northward and westward, which continued during the day, with a heavy fall of snow and a tremendous drift, that prevented our seeing to the distance of more than twenty yards around the ships. The following day being fine, I took my travelling party to the top of the northeast hill, in order to try the cart which had been constructed for carrying the tents and baggage, and which appeared to answer very well. The view from this hill was not such as to offer much encouragement to our hopes of future advancement to the westward. The sea still presented the same unbroken and continuous surface of solid and impenetrable ice, and this ice could not be less than from six to seven feet in thickness, as we knew it to be about the ships. When to this circumstance was added the consideration that scarcely the slightest symptoms of thawing had yet appeared, and that in three weeks from this period the sun would again begin to decline to the southward, it must be confessed that the most sanguine and enthusiastic among us had some reason to be staggered in the expectations they had formed of the complete accomplishment of our enterprise.

CHAPTER VIII.

Journey across Melville Island to the Northern Shore, and Return to the Ships by a different Route.

THE weather being favourable on the morning of the 1st of June, I made such arrangements as were necessary previous to my departure on our intended journey. I directed Lieutenants Liddon and Beechey to proceed with all possible despatch in the equipment of the ships for sea, having them ready to sail by the end of June, in order that we might be able to take advantage of any favourable alteration in the state of the ice at an earlier period than present appearances allowed us to anticipate.

The party selected to accompany me, out of the numerous volunteers on this occasion, consisted of Captain Sabine, Messrs. Fisher, Nias, Reid, and Sergeant M'Mahon, of the marines, Sergeant Martin, of the artillery, and three seamen and two marines belonging to both ships, making a total of twelve, including myself. We were supplied with provisions for three weeks, according to the daily proportion of one pound of biscuit, two thirds of a pound of preserved meat, one ounce of salep powder, one ounce of sugar, and half a pint of spirits for each man. Two tents, of the kind called in the army horsemen's tents, were made of blankets, with two boarding-pikes fixed across at each end, and a

ridge-rope along the top, which, with stones laid upon the foot of the blankets, made a very comfortable and portable shelter. These tents, with the whole of the provisions, together with a *conjuror* or cooking apparatus, and a small quantity of wood for fuel, amounting in the whole to eight hundred pounds, were carried upon a strong but light cart constructed for the purpose : this method having been decided on as the most convenient for the country in which we were about to travel.

Each officer and man was also furnished with a blanket made into a bag, with a drawing-string at each end, a pair of spare shoes and stockings, a flannel shirt, and a cap to sleep in. The clothing and blankets were carried on our backs in knapsacks, those of the officers weighing from seventeen to twenty-four pounds each, and one between every two men weighing twenty-four pounds, to be carried for half a day alternately.

At five P.M. we left the ships, accompanied by a large party of officers and men from each, who were desirous of relieving us from the weight of our knapsacks for an hour or two ; and, having been cheered by the ships on our departure, we went round the head of the harbour, and ascended the northeast hill. Our companions left us at eight P.M., and we proceeded across a level plain almost entirely covered with snow, which, however, was so hard as to make the travelling very good ; and the cart was dragged along without difficulty. At eleven P.M. we came to three remarkable round hills ; composed entirely of sand and masses of sandstone, and halted to dine close to the northward of them. Those parts of the land which were clear

of snow appeared to be more productive than those in the immediate neighbourhood of Winter Harbour, the dwarf-willow, sorrel, and poppy being more abundant, and the moss more luxuriant; we could not, however, collect a sufficient quantity of the slender wood of the willow, in a dry state, for the purpose of dissolving snow for water, and were therefore obliged to use a part of the fuel which we had provided for that purpose. The thermometer stood at 31° at midnight.

Having set off soon after midnight, at the distance of half a mile in a N.b.E. direction we came to a piece of frozen water, half a mile in length and two hundred yards wide, situated on the south side of the range of hills which bound the prospect from Winter Harbour. The ice on the surface of this lake or pond was in some parts nearly dissolved, and in all too soft to allow us to cross it. We halted at half past six A.M., and pitched the tents on the hardest ground we could find, but it became quite swampy in the course of the day. We killed seven ptarmigan, and saw two plovers and two deer, being the first we had met with this season, with a fawn so small as to leave no doubt of its having been dropped since the arrival of the female upon the island. They were so wild as not to allow us to approach them within a quarter of a mile. The day was fine, with light and variable airs; the thermometer stood at 34° in the shade at seven A.M., at which time it was unfortunately broken.

We again set forward at two A.M. on the 3d, crossing one or two ravines, running E.N.E. and W.S.W., in which there was a large collection of

snow, but as yet no appearance of water in the bottom of them. Captain Sabine and myself, being considerably ahead of the rest of the party, had sat down to wait for them, when a fine reindeer came trotting up, and played round us for a quarter of an hour, within thirty yards. We had no gun, nor do I know that we should have killed it if we had, there being already as much weight upon the cart as the men could well drag, and having no fuel to spare for cooking; besides, we felt it would have been but an ill return for the confidence which he seemed willing to place in us. On hearing our people talking on the opposite side of the ravine, the deer immediately crossed over, and went directly up to them, with very little caution; and they being less scrupulous than we were, one or two shots were immediately fired at him, but without effect; on which he again crossed over to where we were sitting, approaching us nearer than before. As soon as we rose up and walked on, he accompanied us like a dog, sometimes trotting ahead of us, and then returning within forty or fifty yards. When we halted, at six A.M., to make the usual observations, he remained by us till the rest of the party came up, and then trotted off. The reindeer is by no means a graceful animal; its high shoulders, and an awkward stoop in its head, giving it rather a deformed appearance. Our new acquaintance had no horns; he was of a brownish colour, with a black saddle, a broad black rim round the eyes, and very white about the tail. We observed that, whenever he was about to set off, he made a sort of playful gambol, by rearing on his hind legs.

At two o'clock on the morning of the 4th we

continued our journey to the northward, over the same snowy and level plain as before, than which it is impossible to conceive anything more dreary and uninteresting. It frequently happened that, for an hour together, not a single spot of uncovered ground could be seen. The breeze freshened up to a gale from the S.S.E. as we proceeded, and the men, as if determined not to forget that they were sailors, set a large blanket upon the cart as a sail, which, upon the present level ground, was found to be of material assistance. The snow was deep and rather soft, which made the travelling heavy; and as the wind produced a good deal of snowdrift, most of the bare patches of ground became covered up, so that, when our time for halting had arrived, not a piece of ground could be seen on which to pitch the tents. Captain Sabine and myself went forward to look out for a spot, and at length were fortunate to meet with one, on which there was just room for our little encampment. It was with some difficulty, by building a wall with stones and our knapsacks, that we prevented its being covered with snow before the party came up, which they did at half past seven A.M., having travelled ten miles in a N.W.b.N. direction.

By the time we had secured the tents the wind blew hard, with a continued fall, as well as drift of snow, so that we could not but consider ourselves fortunate in having met with a spot of ground in good time. Notwithstanding the inclemency of the weather, we found the tents afford us very comfortable and sufficient shelter, the cart being tilted up to windward of them, so as to break in some

measure the violence of the wind ; and, when wrapped up, or, rather, enclosed in our blanket-bags, we were generally quite warm enough to enjoy the most sound and refreshing repose.

It continued to blow and snow till seven P.M., when the wind having veered to the S.W., and become more moderate, we struck the tents ; and having now placed the men's knapsacks on the cart, to enable them to drag with greater facility, we proceeded on our journey to the northward. We passed a narrow but deep ravine lying across our course, in some parts of which the snow reached nearly to a level with the banks, forming a kind of bridges or causeways, on one of which we crossed without difficulty. The men had hoisted one sail upon the cart at first setting off ; but the wind being now, as they expressed it, "on the larboard quarter," a second blanket was rigged as a main-sail, to their great amusement as well as relief.

After crossing a second ravine, on the north side of which the ground rose considerably, we entered upon another snowy plain, where there was nothing to be seen in any direction but snow and sky. To make it the more dreary, a thick fog came on as the night advanced ; and as this prevented our taking any mark more than fifty or a hundred yards ahead, we had to place the compass, by which we were now entirely travelling, upon the ground every five minutes ; and as it traversed with great sluggishness, we made a very crooked and uncertain course. For more than two hours we did not pass a single spot of uncovered ground, nor even a stone projecting above the snow.

The fog continued too thick to allow us to move

till six A.M., at which time we resumed our journey. There was a broad and distant haze-bow of very white and dazzling light directly opposite the sun. The weather being still too foggy to see more than a quarter of a mile ahead, it was with considerable difficulty that we could proceed on a tolerably straight course. To effect this, it was necessary to determine the point on which we were walking by the bearing of the sun, which was still visible, and the apparent time, and then to take a mark ahead by which our course was to be directed. From the thickness of the weather, however, it was necessary to repeat this operation every five or ten minutes, which, together with the uniform whiteness and intense glare of the snow, became so extremely painful to the eyes, that Mr. Fisher and myself, who went ahead as guides, soon became affected with snow-blindness, and the headmost man at the cart, whose business it was constantly to watch our motions, began to suffer in a similar manner from the same cause.

It may, perhaps, be conceived, then, under these circumstances, how pleasing was the relief afforded by our seeing, at eight A.M., a stripe of black or uncovered land ahead, which proved to be the bank of a ravine fifty or sixty feet deep and three hundred yards wide, on the north side of which we pitched the tents, having made good only one mile and a half, the snow being so soft and deep as to make it difficult to drag the cart through it.

The latitude observed here was $75^{\circ} 22' 43''$, and the longitude, by the chronometer, $111^{\circ} 14' 26''$, in which situation a cylinder of tin, containing an account of our visit, was deposited under a pile of

stones eight feet high and seven feet broad at the base.

The wind increased to a fresh breeze from the S.S.E. on the 6th, with a sharp frost, making it very cold in the tents, which we therefore struck at four A.M., and at the distance of half a mile came to the summit of a hill overlooking what appeared to be a frozen sea before us. We then descended the hill, with the intention of pushing forward to determine whether the white and level space before us was the sea or not. We had not proceeded far, however, when the clouds began to gather heavily in the southeast, and shortly after snow and sleet began to fall. Being unwilling, therefore, to allow the men's clothes to be wet when there was no absolute occasion for it, we halted on a piece of dry ground, and, having built a wall six feet high to shelter us from the weather, pitched the tents very comfortably under the lee of it till the weather should allow us to proceed.

At six P.M., the wind having gradually got round to the N.N.E., and the weather being more clear and cold, I set out, accompanied by Messrs. Nias and Reid, and a quartermaster of the Griper, with the intention of examining the situation and appearance of the sea to the northward; leaving the rest of the party, several of whom were suffering from snow-blindness, though otherwise in good health, to remain quietly in the tents till our return. Having travelled N.N.W. a mile and a half through much deep snow, of which a good deal had fallen during the day, we came to some ice thrown up on the beach, having cracks in it parallel to the line of the shore, which we immediately

recognised to be of the same kind as those to which we had so long been accustomed in Winter Harbour, and which are occasioned by the rise and fall of the tide. We turned to the westward along the beach, and at the distance of two miles ascended a point of land in that direction, from whence we had a commanding view of the objects around us. As soon as we had gained the summit of this point, which is about eighty feet above the sea, we had an additional confirmation that it was the sea which we had now reached, the ice being thrown upon the beach under the point, and as far as we could see to the westward, in large, high, irregular masses, exactly similar to those which had so often afforded us anchorage and shelter upon the southern shores of the island. Being desirous, however, of leaving nothing uncertain respecting it, we walked out a few hundred yards upon the ice, and began with a boarding-pike and our knives, which were all the tools we had, to dig a hole in it, in order to taste the water beneath. After nearly two hours' labour, we could only get down as many feet, the ice being very hard, brittle, and transparent; more so, as we imagined, than salt-water ice usually is, which made us the more desirous to get through it. I therefore determined to return to our people, and to remove our encampment hither, for the purpose of completing the hole through the ice with all our hands, while we were obtaining the necessary observations on shore.

On our return to the tents, we dined, and rested till one o'clock on the morning of the 7th, when we set out for the point, at which we did not arrive till half past four, the snow being here so deep as

to make the cart an improper, and, indeed, almost impracticable mode of conveying our baggage. It froze all day in the shade, with a fresh breeze from the north; and, though the tents were pitched under the lee of the grounded ice upon the beach, we found it extremely cold; all the pools of water were frozen hard during the night, and some of our canteens burst from the same cause. The people were allowed to rest after their supper till four P.M., and were then set to work upon the ice and in building a monument on the top of the Point.

We dined at midnight; and at half past one A.M. on the 8th struck the tents, and drew the cart to the higher part of the Point, where we occupied two hours in completing our monument, which is of a conical form, twelve feet broad at the base, and as many in height. Within it were deposited a tin cylinder, containing an account of the party who had left it, and one or two silver and copper English coins. This monument may be seen at several miles' distance from the sea or land side; and, as great pains were taken by Mr. Fisher in constructing it, it may probably last for a long period of years.

Having now satisfactorily determined the extent of Melville Island to the northward upon this meridian, which corresponds very nearly with that of Winter Harbour, and finished all the requisite observations, I proposed pursuing our journey towards the Blue Hills, which were still in sight at the distance of several leagues to the westward; and, having advanced to the southwest as long as circumstances should appear to make it interesting or practicable, to return by a circuitous route to

the ships. We travelled in a W. $\frac{1}{2}$ S. direction, in order to keep on a ridge along the coast, which afforded the only tolerable walking, the snow being very deep on the lower parts of the land. We halted at half past seven A.M., on a fine sandy ground, which gave us the softest, as well as the driest bed which we had yet experienced on our journey, and which was situated close to a little hillock of earth and moss, so full of the burrows of hares as to resemble a warren. We tried to smoke them out by burning port-fire, but none appeared; and it is remarkable, that though we constantly met with the dung of these animals, especially in this place, where it occurred very abundantly, we never saw one of them during the journey. As soon as we had halted, we found that Mr. Reid's knapsack had dropped off the cart; he had therefore to go back to look for it, and did not return till eleven o'clock, being so much affected by snow-blindness as to be scarcely able to see his way to the tents. This circumstance was sufficient to show the advantage, and even the necessity, of travelling entirely by night under these circumstances, the intense glare of light from the snow during the day inevitably producing this painful irritation in the eyes.

At a quarter past five P.M. we resumed our journey to the southwest, and soon after crossed a snowy plain a mile and a quarter in breadth, extending to the sea to the north, and as far as the eye could reach to the south. Having travelled S.W. b.W. seven miles, we halted, at half an hour before midnight, at the distance of three or four miles from the sea, the weather being very clear and fine, with a moderate breeze from the S.S.W.

Having rested after our dinner till half past two A.M., we set out again to the southwest, making, however, a very crooked course on account of the irregularity of the ground. In the first quarter of a mile we passed the first running stream which we had seen this season, and this was but a small one, from six to twelve inches deep. The ground, as well as the pools of water, was frozen hard during the last night, but thawed during the day, which made travelling worse and worse, as the sun acquired power. We passed a few horns of deer, killed three ptarmigans, and saw a pair of ducks. The plumage of the cock grouse was still quite white, except near the tip of the tail, where the feathers were of a fine glossy black; but in every hen which we had lately killed, a very perceptible alteration was apparent, even from day to day, and their plumage had now nearly assumed that speckled colour which, from its resemblance to that of the ground, is so admirably adapted to preserve them from being seen at the season of their incubation. We found it difficult, in general, to get near the hens, which were very wild; but the male birds were at all times stupidly tame.

At half past two A.M. on the 10th we struck the tents, and proceeded to the S.W., the wind having got round to the S.E., with continued snow. At the distance of two miles we entered upon a level plain three miles wide, which, with the exception of a patch here and there, was entirely covered with snow. The uncovered parts of this plain were so wet as to be almost impassable for the cart; and we were now as desirous of keeping on the snow

as, at the beginning of our journey from Winter Harbour, we had been anxious to avoid it.

The weather continued hazy, with snow occasionally, but our clothes dried in the sun towards noon; soon after which, however, the snow became more thick and constant, so that we could scarcely see a hundred yards around the tents. We waited for some time in hope of the weather clearing, and then, at a quarter past five, continued our journey; as we were under the necessity, however, of directing our course entirely by compass, which is here a very uncertain and deceitful guide, we made but a slow and tedious progress. The wind freshened up to a gale from the S.E. soon after we had set out, which made it impossible for us any longer to pursue our journey, and we began to look out for a spot on which the tents could be pitched, so as to afford us a dry flooring, if not shelter, during the gale. Having crossed three ravines within a mile and a quarter, we at length came to a very deep one, which was nearly perpendicular on each side, with the snow overhanging in some parts, so as to make it dangerous to go near the edge of the bank. We were at length fortunate in finding a narrow, sloping ridge of snow, leading down to the bottom of the ravine; and having descended this with some difficulty, we found such good shelter as to determine me to halt here for the night, which now became more and more inclement.

The wind gradually veered to the N.N.W. in the morning, and the weather having cleared up about half past four, we struck the tents and set off to the southward. The south bank of the ravine being nearly as steep, and much higher than the other, it

was with considerable labour and difficulty that we were able to get the cart up it, in which, however, we succeeded by six o'clock, when we found that we were travelling on much higher ground than before, overlooking that which we had left the preceding evening. Having proceeded four miles over a level country, with much snow upon it, we suddenly and unexpectedly came in sight of the sea or a lake, at the distance of two or three miles before us, just appearing between two high and steep hills, which terminated a deep and broad ravine. We hastened forward to the point of the nearest hill, from whence the prospect was extremely grand and picturesque. We were looking down nearly perpendicular from a height of eight or nine hundred feet, on an extensive plain of ice, of which, to the westward, we could perceive no termination for a distance of five or six leagues, the prospect to the eastward being obstructed by other hills. A thick mist or vapour was at times carried rapidly along by the wind over this ice, to which it was entirely confined, occasionally covering the top of the island with a dense cloud. The impression made upon our minds at the time was, that it was a frozen lake on which we were now looking; but this conjecture, as it afterward appeared, proved erroneous. The ravine at which we had arrived discharges its waters into a snug cove two or three miles deep, at the head of which we now proposed resting, if a place could be found at which our descent into the ravine could be effected. The sides of the ravine, which were very steep, were covered with innumerable blocks of sandstone of every size and shape, over which alone any road could be found to the cove.

below. It was necessary, therefore, to make the attempt, but it was impossible for the best built carriage to travel long on such a road; and when we had half descended the bank, which led into the ravine on its north side, the axle-tree broke short in the middle. The baggage was therefore taken off and carried down to the bottom, where the tents were pitched at eleven A. M., the wheels being left where the cart broke down, as sound as at first.

The latitude observed here was $75^{\circ} 12' 50''$, the longitude, by chronometer, $111^{\circ} 50' 05''$, and the variation of the magnetic needle $125^{\circ} 12' 22''$ easterly. The wind being fresh from the W.N.W., and the weather being cold and raw, we built a wall to the windward of the tents, as a substitute for the usual shelter afforded by the cart; after supper, the people, being a good deal fatigued, were allowed to rest till near midnight, and then employed in arranging the baggage so as to carry it on our shoulders for the rest of the journey. The wood which composed the light framework of the cart being now disposable as fuel, we were glad to make use of it in cooking a few ptarmigan, which afforded us another sumptuous meal. It is not, perhaps, easy for those who have never experienced it, to imagine how great a luxury anything warm in this way becomes, after living entirely upon cold provisions for some time in this rigid climate. This change was occasionally the more pleasant to us, from the circumstance of the preserved meats, on which we principally lived, being generally at this time hard frozen when taken out of the canisters.

Having finished our arrangements with respect to the baggage, which made it necessary that each

of the men should carry between sixty and seventy pounds, and the officers from forty to fifty, we struck the tents at half past two on the morning of the 12th, and proceeded along the eastern shore of the cove, towards a point which forms the entrance on that side.

We arrived at the point at five o'clock, and as we could now perceive that the lake or gulf extended a considerable distance to the eastward as well as to the westward, and that it would require a long time to go round in the former direction, I determined to cross it on the ice; and as the distance to the opposite shore seemed too great for one journey, the snow being soft upon the ice, first to visit the island, and, having rested there, to proceed to the southward. Having walked five miles in a S. S. W. direction, we landed at seven A. M., near the southeast part of the island. The wind was fresh from the westward, and the tents were pitched near the beach, under the lee of the high part of the island.

We rested till six P. M., and then set off across the ice for a point to the E. S. E. The snow had now become so soft after the heat of the day, that, loaded as we were, we often sunk nearly up to the knees, which made travelling very laborious, and we were, therefore, not sorry to get on shore by half past eight, having walked, by our account, three miles and a half.

The spot on which we encamped appeared so favourable for obtaining specimens of the different animals which frequent this island, that I determined to remain here one day for the purpose of sporting and examining its natural productions.

The sportsmen went out early in the morning, and soon after met with a musk-ox feeding on a spot of luxuriant pasture-ground, covered with the dung of these animals as well as of deer. They fired at him from a considerable distance without wounding him, and he set off at a very quick pace over the hills. The musk-ox has the appearance of a very ill-proportioned little animal, its hair being so long as to make its feet appear only two or three inches in length; they seem, indeed, to be treading upon it at every step, and the individual in question actually did so in some instances, as the hair was found in several of the foot-tracks. When disturbed and hunted, they frequently tore up the ground with their horns, and turned round occasionally to look at their pursuers, but they never attempted to attack any of them. Our gentlemen also met with a herd of twelve deer, three only of which had horns, and they were much the largest of the herd, and constantly drove the others away when they attempted to stop. The birds seen by our people were many brent-geese and ptarmigans, several golden plovers, one or two "boatswains," and abundance of snow-buntings. One or two mice were caught; like several others we had seen, these were turning brown about the belly and head, and the back was of a dark gray colour. In every part of the island over which we travelled, the holes and tracks of these little animals were occasionally seen; one of them, which Sergeant Martin ran after, finding no hole near and that he could not escape, set himself against a stone, as if endeavouring to defend himself, and bit the sergeant's finger when he took hold of him.

On a point of land at the distance of three quarters of a mile to the W.b.S. of the tents, and within a hundred yards of the sea, the remains of six Esquimaux huts were discovered; they consisted of rude circles, about six feet in diameter, constructed irregularly of stones of all sizes and shapes, and raised to the height of two feet from the ground: they were paved with large slabs of white schistose sandstone, which is here abundant; the moss had spread over this floor, and appeared to be the growth of three or four years. In each of the huts, on one side, was a small separate compartment forming a recess, projecting outward, which had probably been their store-room; and at a few feet from one of the huts was a smaller circle of stones, which had composed the fireplace, the mark of fire being still perceptible upon them.

The day was fine and clear, with a moderate wind from the westward till four P.M., when it died away, and was shortly after succeeded by a breeze from the southward, with a fall of snow. We now travelled due south, with the intention of getting sight of the Table Hills, and returning by that route to the ships, as there appeared to be nothing more within our reach of sufficient interest to detain us any longer from them. At eight P.M., finding that the people's clothes were becoming wet through by the sleet which fell, we halted and pitched the tents.

Early on the morning of the 14th the wind veered to the westward, and the weather became gradually more clear; we therefore continued our journey to the southward, and came in sight of the Table Hills bearing S.E. of us, and at eight

A.M. pitched the tents on some dry ground on the bank of a ravine. We moved on towards the Table Hills at five P.M., and crossed several ravines without much water in them, running generally to the northeastward. We halted between the Table Hills at ten o'clock, having travelled eight miles over very swampy ground, and with the snow up to our knees in some of the hollows.

As soon as the observations were completed, we set off for Winter Harbour, and having passed over much rich and wet ground, abounding with sorrel, which now began to put forth its leaves with more vigour, arrived on board at seven P.M., having been met, and welcomed most heartily, by almost every officer and man belonging to the ships; and it was no small satisfaction to me to hear it remarked, that the whole of our travelling party appeared in more robust health than when we left them.

CHAPTER IX.

Occurrences at Winter Harbour in the early part of June.— Gradual Dissolution of the Ice upon the Sea and of the Snow upon the Land.—Decease and Burial of William Scott.— Equipment of the Ships completed.—Temperate Weather during the Month of July.—Breaking up of the Ice near the Ships.—Move to the lower part of the Harbour.—Separation of the Ice at the Entrance.—Prepare to Sail.—Abstract of Observations made in Winter Harbour.

I HAD the happiness to find, on my return, that the officers and men in both ships continued to enjoy the same good health as before, with the ex-

ception of Scott, who was still the only man in the Hecla's sick-list, and whose complaint seemed such as to baffle every attempt that had been made to produce an amendment. A constant disposition to fainting and a languid sort of despondency had been, for some time past, the only symptoms which had induced Mr. Edwards to continue the anti-scorbutic treatment; and this it was sometimes absolutely necessary to discontinue for a day or two together, on account of the weak state of his bowels. During my absence he had been much worse than before, notwithstanding the greatest care and attention paid to him; but he was now once more better. He had lived almost entirely on the ptarmigan and ducks, of which a sufficient quantity had been procured to serve the sick and convalescent in both ships abundantly, and none had at this time been issued to any officer or man in the expedition.

The equipment of the ships had gone on satisfactorily during my absence, the Griper being nearly ready for sea, the Hecla not quite so forward, on account of the heavy work with the ballast, of which sixty-five tons had been brought on board, to supply the deficiency of weight in her holds. The survey of the provisions, fuel, and other stores was completed, and the quantity and condition of them, with the exception of the lemon-juice and vinegar before mentioned, were found to be satisfactory. With respect to vermin, I may here mention, that not a mouse, or rat, or maggot of any kind ever appeared on board, to my knowledge, during this voyage.

A very perceptible change had taken place in the

ice of the harbour on its upper surface, it being covered with innumerable pools of water, chiefly brackish, except close in-shore, where the tides had lifted the ice considerably above the level of the sea.

Having observed that the sorrel was now so far advanced in foliage as to be easily gathered in sufficient quantity for eating, I gave orders that two afternoons in each week should be occupied by all hands in collecting the leaves of this plant; each man being required to bring in, for the present, one ounce, to be served in lieu of lemon-juice, pickles, and dried herbs, which had been hitherto issued. The growth of the sorrel was from this time so quick, and the quantity of it so great on every part of the ground about the harbour, that we shortly after sent the men out every afternoon for an hour or two; in which time, besides the advantage of a healthy walk, they could, without difficulty, pick nearly a pound each of this valuable antiscorbutic, of which they were all extremely fond. Of the good effects produced upon our health by the unlimited use of fresh vegetable substances, thus bountifully supplied by the hand of Nature, even where least to be expected, little doubt can be entertained, as it is well known to be a never-failing specific for scorbutic affections, to which all persons deprived of it for a length of time are probably more or less predisposed.

By the 20th of June, the land in the immediate neighbourhood of the ships, and especially in low and sheltered situations, was much covered with the handsome purple flower of the *saxifraga oppositifolia*, which was at this time in great perfection,

and gave something like cheerfulness and animation to a scene hitherto indescribably dreary in its appearance.

The suddenness with which the changes take place during the short season which may be called summer in this climate, must appear very striking when it is remembered that, for a part of the first week in June, we were under the necessity of thawing artificially the snow which we made use of for water during the early part of our journey to the northward; that, during the second week, the ground was in most parts so wet and swampy that we could with difficulty travel; and that, had we not returned before the end of the third week, we should probably have been prevented doing so for some time, by the impossibility of crossing the ravines without great danger of being carried away by the torrents, an accident that happened to our hunting parties on one or two occasions in endeavouring to return with their game to the ships.

On the 22d, at four P.M., a thermometer, in the shade on board the Hecla, stood at 51° , being the highest temperature we had yet registered this season.

On the 24th we had frequent showers of snow, which occur in this climate more or less at all times of the year; at this season, however, when the earth is warm, it seldom or never lies on the ground for a whole day together.

Lieutenant Beechey, on his return from a hunting excursion at midnight on the 26th, reported that the ice along shore in that direction appeared in a more forward state of dissolution than near Winter Harbour, there being almost water enough in

some places to allow a boat to pass, with several large cracks in the ice extending from the land some distance to seaward. The deer had now become much more wild near the tents, and it was therefore necessary to shift the ground a little. Lieutenant Beechey succeeded in killing one of these animals, by lying down quietly, and imitating the voice of a fawn, when the deer immediately came up to him within gunshot. The horns of the deer killed at this season, as Mr. Fisher remarks, were "covered with a soft skin having a downy pile or hair upon it; the horns themselves were soft, and at the tips flexible and easily broken." The foxes, of which they saw several, "had a black spot or patch on each side of the hind-quarters or hams."

On the 29th, one of the men, in returning on board from the daily occupation of gathering sorrel, found in a hole upon the ice a small fish, which appeared to be of the whiting species; and, on going to examine the place where it was picked up, Mr. Edwards and myself found two others exactly similar. As there was as yet no communication between the sea and the upper surface of the ice sufficiently large to admit these fish, it became a matter of question in what manner they had got into the situation in which we found them. It appeared most likely that they were frozen on the surface of the water at the beginning of winter, when the frost first commenced, and perhaps, therefore, had been floating there dead. We remarked that, whenever any hard substance is laid upon the ice in small quantities, it soon makes a deep hole for itself, by the heat it absorbs and radiates, by which the ice around it is melted. There were at this

time upon the ice innumerable holes of this kind, some forming small, and others large pools of water; and in every one of these, without exception, some extraneous substance, such as seaweed, sand, and not unfrequently a number of small putrid shrimps were found. In one of these holes the fish alluded to were found. It was curious to see how directly contrary was the effect produced upon the ice by a quantity of straw which was put out upon it in the early part of May, and which, by preventing the access of warmth, had now become raised above the general surface more than two feet; affording a strong practical example of the principle on which straw is made use of in ice-houses, and, what was at that time of more importance to us, a proof how much the upper surface of the ice had been insensibly wasted by dissolution.

Lieutenant Hoppner returned on the evening of the 29th from his hunting excursion to the southwest, bringing with him some game, and, what was to us much more acceptable, the welcome information that the ice had been observed in motion in the offing on the 22d. This circumstance was first observed by Messrs. Skene and Fife, who were of Lieutenant Hoppner's party, and who were awakened by a loud grinding noise, which, as they had soon the satisfaction to find, was occasioned by the heavy field-ice setting rapidly to the eastward, at the distance of five miles from the land, and apparently at the rate of a mile an hour. The wind was at this time moderate, but on the preceding day it had blown a fresh northerly gale.

For some days past Scott had been gradually growing worse, and on the evening of the 29th he

was so far exhausted that Mr. Edwards did not expect him to survive through the night. At two A.M. on the 30th I was informed by that gentleman that Scott was dying ; and, before I could get my clothes on, he had breathed his last, without any apparent pain.

On Sunday, the 2d of July, after divine service had been performed, the body of the deceased was committed to the earth, on a level piece of ground about a hundred yards from the beach, with every solemnity which the occasion demanded, and the circumstances of our situation would permit. The ensigns and pendants were lowered half-mast during the procession, and the remains of our unfortunate shipmate were attended to the grave by every officer and man in both ships. A neat tombstone was afterward placed at the head of the grave by Mr. Fisher, who carved upon it the name of the deceased, with the other usual information.

The dissolution of the ice of the harbour went on so rapidly in the early part of July, that we were greatly surprised, on the 6th, in finding that, in several of the pools of water on its upper surface, holes were washed quite through to the sea beneath. On examining several of these, we found that the average thickness of the ice in the upper part of the harbour, where the ships were lying, did not exceed two feet, which was much less than we had any idea of. Towards the mouth of the harbour, however, where the water was deeper, no such holes made their appearance for some days after this. It must here be remarked, that in all cases we found the ice to be first thawed and broken up in the shoalest water, in consequence, I

suppose, of the greater facility with which the ground, at a small depth below the surface of the sea, absorbed and radiated the heat of the sun's rays; and as it is in such situations that water generally freezes the first, this circumstance seems a remarkable instance of the provision of nature for maintaining such a balance in the quantity of ice annually formed and dissolved, as shall prevent any undue or extraordinary accumulation of it in any part of the Polar regions of the earth.

On unhooking the rudders, and hauling them up on the ice for examination, we found them a good deal shaken and grazed by the blows they had received during the time the ships were beset at the entrance of Davis's Strait. We found, also, that the rudder-cases in both ships had been fitted too small, occasioning considerable difficulty in getting the rudders down when working, a circumstance by no means disadvantageous (perhaps, indeed, rather the contrary) on ordinary service at sea, but which should be carefully avoided in ships intended for the navigation among ice, as it is frequently necessary to unship the rudder at a short notice, in order to preserve it from injury, as our future experience was soon to teach us. This fault was, however, soon remedied, and the rudders again hung in readiness for sea.

On the 14th a boat passed, for the first time, between the ships and the shore, in consequence of the junction of a number of the pools and holes in the ice; and on the following day the same kind of communication was practicable between the ships. It now became necessary, therefore, to provide against the possibility of the ships being

forced on shore by the total disruption of the ice between them and the beach, and the pressure of that without, by letting go a bower-anchor underfoot, which was accordingly done as soon as there was a hole in the ice under the bows of each sufficiently large to allow the anchors to pass through. We had now been quite ready for sea for some days; and a regular and anxious look-out was kept from the crow's-nest for any alteration in the state of the ice which might favour our departure from Winter Harbour, in which it now became more than probable that we were destined to be detained thus inactively for a part of each month in the whole year, as we had reached it in the latter part of September, and were likely to be prevented leaving it till after the commencement of August.

From six A.M. till six P.M. on the 17th, the thermometer stood generally from 55° to 60° ; the latter temperature being the highest which appears in the Hecla's Meteorological Journal during this summer. It will readily be conceived how pleasant such a temperature must have been to our feelings after the severe winter which immediately preceded it. The month of July is, indeed, the only one which can be called at all comfortable in the climate of Melville Island.

On the 20th, there being a strong breeze from the N.N.E., with fog and rain, all favourable to the dispersion of the ice, that part of it which was immediately around the Hecla, and from which she had been artificially detached so long before, at length separated into pieces and floated away, carrying with it the collection of ashes and other rub-

bish which had been accumulating for the last ten months : so that the ship was now once more fairly riding at anchor, but with the ice still occupying the whole of the centre of the harbour, and within a few yards of her bows : the Griper had been set free in a similar manner a few days before. But it was only in that part of the harbour where the ships were lying that the ice had yet separated in this manner at so great a distance from the shore ; a circumstance probably occasioned by the greater radiation of heat from the ships, and from the materials of various kinds which we had occasion to deposite upon the ice during the time of our equipment.

Lieutenant Liddon accompanied me in a boat down the west shore of the harbour to the southern point of the entrance, in order to sound along the edge of the ice, where we found from seven to fifteen feet water ; the ice about the entrance appeared still very solid and compact, and not a single hole was at this time noticed through any of the pools upon its surface except one, which was made by a seal, and which discovered the thickness of the ice to be there between two and three feet.

There was a fresh breeze from the northeastward, with fine clear weather, on the 22d, which made the Hecla swing round into twenty feet water astern ; and the ice, being now moveable in the harbour, came home towards the shore with this wind, but not so much as to put any considerable strain on the cable of either ship ; and the holding-ground being excellent, there was nothing to apprehend for their security.

A fresh gale, which blew from the northward

on the morning of the 23d, caused a great alteration in the appearance of the ice near the ships, but none whatever in that in the offing or at the mouth of the harbour, except that the shores were there more encumbered than before, owing to the quantity of pieces which were separated and driven down from the northward, so that our small boat could not succeed in getting along the shore.

On the 24th the sails were bent, in readiness for starting at a moment's notice, though it must be confessed that the motive for doing so was to make some show of moving rather than any expectation which I dared to entertain of soon escaping from our long and tedious confinement; for it was impossible to conceal from the men the painful fact that, in eight or nine weeks from this period, the navigable season must unavoidably come to a conclusion.

I went away in a boat early on the morning of the 25th, in order to sound the harbour in those parts where the ice would admit the boat, with a view to take advantage of the first favourable change which might present itself. The wind having come round to the southward in the afternoon, caused the separation of a large portion of ice on the northern side of that which now occupied the harbour, and the detached pieces drifting down towards us, rendered it necessary to be on our guard, lest the ships should be forced from their anchorage. On this account, as well as from an anxious and impatient desire to make a move, however trifling, from a spot in which we had now unwillingly, but unavoidably, passed nearly ten months, and of which we had long been heartily

tired, I directed lines to be run out for the purpose of warping the ships along the ice in the centre of the harbour, and at half past two P.M. the anchors were weighed. As soon as a strain was put upon the lines, however, we found that the ice to which they were attached came home upon us, instead of the ships being drawn out to the southward; and we were therefore obliged to have recourse to the kedge-anchors, which we could scarcely find room to drop on account of the closeness of the ice. Having warped a little way out from the shore, into five fathoms and a half, it was found impossible to proceed any farther without a change of wind, and the anchors were therefore dropped till such a change should take place. In the course of the evening all the loose ice drifted past us to the northward, loading that shore of the harbour with innumerable fragments of it, and leaving a considerable space of clear water along shore to the southward.

On the morning of the 26th it was nearly calm, with continued rain and thick weather; and there being now a space of clear water for nearly three quarters of a mile to the southward of us, we took advantage of a breeze which sprung up from the northward to weigh, at nine A.M., and run down as far as the ice would permit, and then dropped our anchors in the best berths we could select, close to the edge of it, with the intention of advancing step by step, as it continued to separate by piecemeal. The ice across the entrance of the harbour as far as this spot, and the whole of that in the offing, of which we had here a commanding view from the Hecla's crow's-nest, was still quite continuous

and unbroken, with the same appearance of solidity as it had during the middle of winter, except that the pools of water were numerous upon its surface.

The wind being from the S.S.W. during the night of the 30th, served to close the lane of water which had appeared in the offing the preceding day, which we considered a favourable circumstance, as showing that the external mass of ice was in motion. In the course of the day, the wind shifting to the W.N.W., we once more discovered a small opening between the old and young floes, and at eleven P.M., the whole body of the ice in the harbour was perceived to be moving slowly out to the southeastward, breaking away, for the first time, at the points which form the entrance of the harbour. This sudden and unexpected change rendering it probable that we should at length be released, I sent to Captain Sabine, who had been desirous of continuing his observations on the pendulum to the last moment, to request that he would have the clocks ready for embarkation at an early hour in the morning.

CHAPTER X.

Leave Winter Harbour.—Flattering Appearance of the Sea to the Westward.—Stopped by the Ice near Cape Hay.—Farther Progress to the Longitude of $113^{\circ} 48' 22.5''$, being the Westernmost Meridian hitherto reached in the Polar Sea, to the North of America.—Banks's Land discovered.—Increased Extent and Dimensions of the Ice.—Return to the Eastward, to endeavour to penetrate the Ice to the Southward.—Re-enter Barrow's Strait, and Survey its South Coast.—Pass through Sir James Lancaster's Sound on our Return to England.

THE wind still blowing fresh from the northward and westward, the ice continued to drift out slowly from the harbour, till, at eight A.M., August 1st, it had left the whole space between the ships and Cape Hearne completely clear, and at eleven o'clock there appeared to be water round the hummocks of ice which lie aground off that point. In the mean time, our boats were employed in embarking the clocks, tents, and observatory, while I sounded the entrance of the harbour in order to complete the survey, which no opportunity had offered of doing before this time. At one P.M., having got everything on board, and the ice appearing to be still leaving the shore, we weighed, and ran out of Winter Harbour, in which we had actually, as had been predicted, passed ten whole months, and a part of the two remaining ones, September and August.

In running along shore towards Cape Hearne, generally at the distance of half a mile from the land, we had from ten to sixteen fathoms' water,

and rounded the hummocks off the point in six and a half fathoms by three P.M. As we opened the point, it was pleasing to see that the coast to the westward of it was more clear of ice (excepting the loose pieces which lay scattered about in every direction, but which would not very materially have impeded the navigation with a fair wind) than it had been when we first arrived off it, a month later in the foregoing year; the main ice having been blown off by the late westerly and northwesterly winds to the distance of four or five miles from the shore, which, from all we have seen on this part of the coast, appears to be its utmost limit. The navigable channel, with a beating wind between the ice and the land, was here from one to two, or two miles and a half in width; and this seemed, from the masthead, to continue as far as the eye could reach along shore to the westward.

We found the wind much more westerly after we rounded the point, which made our progress slow and tedious; the more so, as we had every minute to luff for one piece of ice and to bear up for another, by which much ground was unavoidably lost. After a very few tacks, we had the mortification to perceive that the Griper sailed and worked much worse than before, notwithstanding every endeavour which Lieutenant Liddon had been anxiously making, during her re-equipment, to improve those qualities in which she had been found deficient. She missed stays several times in the course of the evening, with smooth water and a fine working breeze, and by midnight the Hecla had gained eight miles to windward of her, which obliged me to heave to, notwithstanding the increased width of

the navigable channel, the weather having become hazy, so as to endanger our parting company.

Soon after noon on the 2d, a breeze sprung up from the S.S.W., which, being rather upon the shore, made it likely that the ice would soon begin to close it; we therefore began to look out for a situation where the ships might be secured in-shore, behind some of the heavy grounded ice which had so often before afforded us shelter under similar circumstances. At one o'clock we perceived that a heavy floe had already closed completely in with the land, at a point a little to the westward of us, preventing all hope of farther progress for the present in that direction. A boat was therefore sent to examine the ice in-shore, and a favourable place having been found for our purpose, the ships were hauled in and secured there, the Griper's bow resting on the beach, in order to allow the Hecla to lie in security without her. This place was so completely sheltered from the access of the main body of the ice, that I began to think seriously of taking advantage of this situation to remove the Griper's crew on board the Hecla, in order to prosecute the voyage in the latter vessel singly, and had consulted the officers upon the subject. The circumstances, however, which subsequently occurred rendering such a measure inexpedient, because no longer necessary to the accomplishment of the object in view, by which alone it could be justified, I was induced to give it up, adopting the best means in our power to remedy the evil in question.

Shortly after our anchoring the Griper's people heard the growling of a bear among the ice near

them, but the animal did not appear ; and this was the only instance of our meeting with a bear during our stay at Melville Island, except that which followed one of our men to the ships soon after our arrival in Winter Harbour. Both crews were sent on shore to pick sorrel, which was here not less abundant than at our old quarters, but it was now almost too old to be palatable, having nearly lost its acidity and juice.

At one A.M. on the 4th, the loose ice was observed to be drifting in upon us, the wind having veered to the eastward of north ; and soon after a floe, of not less than five miles in length and a mile and a half across, was found to be approaching the shore at a quick rate. The ships were immediately hauled as near the shore as possible, and preparation made for unshipping the rudders, if necessary. The floe was brought up, however, by the masses of ice aground outside of us, with which it successively came in contact, and the ships remained in perfect security ; the floe, as usual after the first violence is over, moved off again to a little distance from the shore.

At noon the heavy floe at the point near us began to quit the land, and at half past one P.M., there being a narrow passage between them, the breadth of which the breeze was constantly increasing, we cast off and stretched to the westward. The channel which opened to us as we proceeded varied in its general breadth from one to two miles ; in some places it was not more than half a mile. The wind was variable and squally, but we made great progress along the land to the S.W.b.W., and the Griper, by keeping up tolera-

bly with the Hecla, in some measure redeemed her character with us. Having arrived off Cape Providence at eleven P.M., the wind became light and baffling, so that we had just got far enough to see that there was a free and open channel beyond the westernmost point visible of Melville Island, when our progress was almost entirely stopped for want of a breeze to enable us to take advantage of it. The anxiety which such a detention occasions in a sea where, without any apparent cause, the ice frequently closes the shore in the most sudden manner, can perhaps only be conceived by those who have experienced it. We remarked, in sailing near the ice this evening, while the wind was blowing a fresh breeze off the land, and therefore directly towards the ice, that it remained constantly calm within three or four hundred yards of the latter; this effect I do not remember to have observed before upon the windward side of any collection of ice, though it invariably happens, in a remarkable degree, to leeward of it. I may here mention, as a striking proof of the accuracy with which astronomical bearings of objects may be taken for marine surveys, that the relative bearing of Capes Providence and Hay, as obtained this evening when the two headlands were opening, differed only one minute from that entered in the surveying-book, and found in the same manner the preceding year.

At one P.M. on the 5th, the weather continuing quite calm, and being desirous of examining the ice in-shore, that we might be ready for the floes closing upon us, I left the ship, accompanied by Captain Sabine and Mr. Edwards, and landed near one

of the numerous deep and broad ravines with which the whole of this part of the island is indented. We were ascending the hill, which was found by trigonometrical measurement to be eight hundred and forty-seven feet above the level of the sea, and on which we found no mineral production but sandstone and clay iron-stone, when a breeze sprung up from the eastward, bringing up the Griper, which had been left several miles astern. We only stopped, therefore, to obtain observations for the longitude and the variation of the magnetic needle; the former of which was $112^{\circ} 53' 32''$, and the latter $110^{\circ} 56' 11''$ easterly, and then immediately returned on board and made all sail to the westward. After running for two hours without obstruction, we were once more mortified in perceiving that the ice, in very extensive and unusually heavy floes, closed in with the land a little to the westward of Cape Hay, and our channel of clear water between the ice and the land gradually diminished in breadth, till at length it became necessary to take in the studding sails, and to haul to the wind to look about us. I immediately left the ship, and went in a boat to examine the grounded ice off a small point of land, such as always occurs on this coast at the outlet of each ravine. I found that this point offered the only possible shelter which could be obtained in case of the ice coming in; and I therefore determined to take the Hecla in-shore immediately, and to pick out the best berth which circumstances would admit. As I was returning on board with this intention, I found that the ice was already rapidly approaching the shore; no time was to be lost, therefore, in getting

the Hecla to her intended station, which was effected by half past eight P.M., being in nine to seven fathoms water, at the distance of twenty yards from the beach, which was lined all round the point with very heavy masses of ice that had been forced by some tremendous pressure into the ground. Our situation was a dangerous one, having no shelter from ice coming from the westward, the whole of which, being distant from us less than half a mile, was composed of floes infinitely more heavy than any we had elsewhere met with during the voyage. The Griper was three or four miles astern of us at the time when the ice began to close, and I therefore directed Lieutenant Liddon, by signal, to secure his ship in the best manner he could, without attempting to join the Hecla; he accordingly made her fast at eleven P.M., near a point like that at which we were lying, and two or three miles to the eastward.

On the whole of this steep coast, wherever we approached the shore, we found a thick stratum of blue and solid ice, firmly imbedded in the beach, at the depth of from six to ten feet under the surface of the water. This ice has probably been the lower part of heavy masses forced aground by the pressure of the floes from without, and still adhering to the viscous mud of which the beach is composed, after the upper part has, in course of time, dissolved. From the tops of the hills in this part of Melville Island a continuous line of this submarine ice could be distinctly traced for miles along the coast.

In running along the shore this evening we had noticed near the sea what at a distance had every

appearance of a high wall artificially built, which was the resort of numerous birds. Captain Sabine being desirous to examine it, as well as to procure some specimens of the birds, set out, as soon as we anchored, for that purpose. The wall proved to be composed of sandstone in horizontal strata, from twenty to thirty feet in height, which had been left standing, so as to exhibit its present artificial appearance, by the decomposition of the rock and earth about it. Large flocks of glaucous gulls had chosen this as a secure retreat from the foxes, and every other enemy but man; and when our people first went into the ravine in which it stands, they were so fierce in defence of their young that it was scarcely safe to approach them till a few shots had been fired.

On the morning of the 7th a black whale came up close to the *Hecla*, being the first we had seen since the 22d of August the preceding year, about the longitude of $91\frac{3}{4}^{\circ}$ W.; it therefore acquired among us the distinctive appellation of *the* whale. Since leaving Winter Harbour we had also, on two or three occasions, seen a solitary seal. The wind continued fresh from the east and E.N.E. in the morning, and the loose ice came close in upon us, but the main body remained stationary at the distance of nearly half a mile.

In the afternoon a man from each mess was sent on shore to pick sorrel, which was here remarkably fine and large, as well as more acid than any we had lately met with. The shelter from the northerly winds afforded by the high land on this part of the coast, together with its southern aspect, renders the vegetation here immediately next the

sea much more luxuriant than in most parts of Melville Island which we visited, and a considerable addition was made to our collection of plants.

The easterly breeze died away in the course of the day, and at three P.M. was succeeded by a light air from the opposite quarter; and as this freshened up a little, the loose ice began to drift into our bight, and that on the eastern side of the point to drive off. It became expedient, therefore, immediately to shift the ship round the point, where she was made fast in four fathoms abaft and seventeen feet forward, close alongside the usual ledge of submarine ice, which touched her about seven feet under water, and which, having few of the heavy masses aground upon it, would probably have allowed her to be pushed over it had a heavy pressure occurred from without. It was the more necessary to moor the ship in some such situation, as we found from six to seven fathoms water by dropping the hand-lead down close to her bow and quarter on the outer side.

Several heavy pieces of floes drove close past us, not less than ten or fifteen feet in thickness, but they were fortunately stopped by a point of land without coming in upon us. At eleven o'clock, however, a mass of this kind, being about half an acre in extent, drove in, and gave the ship a considerable "nip" between it and the land ice, and then grazed past her to the westward. I now directed the rudder to be unhung, and the ship to be swung with her head to the eastward, so that the bow, being the strongest part, might receive the first and heaviest pressure.

The ice did not disturb us again till five A.M.

on the 8th, when another floe-piece came in and gave the ship a heavy rub, and then went past, after which it continued slack about us for several hours. Everything was so quiet at nine o'clock as to induce me to venture up the hill abreast of us, in order to have a view of the newly-discovered land to the southwest, which, indeed, I had seen indistinctly and much refracted from the Hecla's deck in the morning. This land, which extends beyond the 117th degree of west longitude, and is the most western yet discovered in the Polar Sea to the northward of the American Continent, was honoured with the name of **BANKS'S LAND**, out of respect to the late venerable and worthy president of the Royal Society.

On the morning of the 9th a musk-ox came down to graze on the beach near the ships. A party was despatched in pursuit, and, having hemmed him in under the hill, which was too steep for him to ascend, succeeded in killing him. When first brought on board, the inside of this animal, which was a male, smelled very strong of musk, of which the whole of the meat also tasted more or less, and especially the heart. It furnished us with four hundred and twenty-one pounds of beef, which was served to the crews as usual, in lieu of their salt provisions, and was very much relished by us, notwithstanding the peculiarity of its flavour.* The meat was remarkably fat, and, as it hung up in quarters, looked as fine as any beef in

* Some pieces of this meat which we brought to England were found to have acquired a much more disagreeable flavour than when first killed, though they had not undergone putrefaction in the slightest degree.

an English market. A small seal, killed by the Griper's people, was also eaten by them; and it was generally allowed to be very tender and palatable, though not very sightly in its appearance, being of a disagreeable red colour.

At ten P.M. the whole body of ice, which was then a quarter of a mile from us, was found to be drifting in upon the land, and the ship was warped back a little way to the westward, towards that part of the shore which was most favourable for allowing her to be forced up on the beach. At eleven o'clock, the piece of a floe which came near us in the afternoon, and which had since drifted back a few hundred yards to the eastward, received the pressure of the whole body of ice as it came in. It split across in various directions with a considerable crash, and presently after we saw a part, several hundred tons in weight, raised slowly and majestically, as if by the application of a screw, and deposited on another part of the floe from which it had broken, presenting towards us the surface that had split, which was of a fine blue colour, and very solid and transparent. The violence with which the ice was coming in being thus broken, it remained quiet during the night, which was calm, with a heavy fall of snow.

The mass of ice which had been lifted up the preceding day being drifted close to us on the morning of the 10th, I sent Lieutenant Beechey to measure its thickness, which proved to be forty-two feet; and as it was a piece of a regular floe, this measurement may serve to give some idea of the general thickness of the ice in this neighbourhood.

I began to consider whether it would not be ad-

visible, whenever the ice would allow us to move, to sacrifice a few miles of the westing we had already made, and to run along the margin of the floes, in order to endeavour to find an opening leading to the southward, by taking advantage of which we might be enabled to prosecute the voyage to the westward in a lower latitude. I was the more inclined to make this attempt, from its having long become evident to us that the navigation of this part of the Polar Sea is only to be performed by watching the occasional openings between the ice and the shore; and that, therefore, a continuity of land is essential, if not absolutely necessary, for this purpose. Such a continuity of land, which was here about to fail us, must necessarily be furnished by the northern coast of America, in whatsoever latitude it may be found; and, as a large portion of our short season had already been occupied in fruitless attempts to penetrate farther to the westward in our present parallel, under circumstances of more than ordinary risk to the ships, I determined, whenever the ice should open sufficiently, to put into execution the plan I had proposed.

At seven P.M. we shipped the rudder and crossed the top-gallant yards in readiness for moving; and then I ascended the hill and walked a mile to the westward, along the brow of it, that not a moment might be lost after the ice to the westward should give us the slightest hope of making any progress by getting under way. Although the holes had certainly increased in size and extent, there was still not sufficient room even for one of our boats to work to windward; and the impossibility of the ships' doing so was rendered more ap-

parent, on account of the current which, as I have before had occasion to remark, is always produced in these seas soon after the springing up of a breeze, and which was now running to the eastward at the rate of at least one mile per hour. It was evident that any attempt to get the ships to the westward must, under circumstances so unfavourable, be attended with the certain consequence of their being drifted the contrary way; and nothing could therefore be done but still to watch, which we did most anxiously, every alteration in the state of the ice. The wind, however, decreasing as the night came on, served to diminish the hopes with which we had flattered ourselves of being speedily extricated from our present confined and dangerous situation.

The weather was foggy for some hours in the morning of the 11th, but cleared up in the afternoon as the sun acquired power. The wind increased to a fresh gale from the eastward at nine P.M., being the second time that it had done so while we had been lying at this station; a circumstance which we were the more inclined to notice, as the easterly winds had hitherto been more faint and less frequent than those from the westward. In this respect, therefore, we considered ourselves unfortunate, as experience had already shown us that none but a westerly wind ever produced upon this coast, or, indeed, on the southern coast of any of the North Georgian Islands, the desired effect of clearing the shores of ice.

The gale continued strong during the night, and the ice quite stationary. Not a pool of clear water could be seen in any direction, except just under the lee of our point, where there was a space large

enough to contain half a dozen sail of ships, till about noon, when the whole closed in upon us without any apparent cause, except that the wind blew in irregular puffs about that time, and at one P.M. it was alongside. The ship was placed in the most advantageous manner for taking the beach, or, rather, the shelf of submarine ice, and the rudder again unshipped and hung across the stem. The ice which came in contact with the ship's side consisted of very heavy loose pieces, drawing twelve or fourteen feet water, which, however, we considered as good "fenders," compared with the enormous fields which covered the sea just without them. Everything remained quiet for the rest of the day, without producing any pressure of consequence; the wind came round to N.b.E. at night, but without moving the ice off the land.

Early in the morning of the 13th I received by Mr. Griffiths a message from Lieutenant Liddon, acquainting me that, at eleven o'clock on the preceding night, the ice had been setting slowly to the westward, and had, at the same time, closed in upon the land where the Griper was lying, by which means she was forced against the submarine ice, and her stern lifted two feet out of the water. This pressure, Lieutenant Liddon remarked, had given her a twist, which made her crack a good deal, but apparently without suffering any material injury in her hull, though the ice was still pressing upon her when Mr. Griffiths came away. She had at first heeled inward, but, on being lifted higher, fell over towards the deep water. Under these circumstances Lieutenant Liddon had very properly landed all the journals and other documents of

importance, and made every arrangement in his power for saving the provisions and stores in case of shipwreck, which he had now every reason to anticipate. Convinced as I was that no human art or power could, in our present situation, prevent such a catastrophe whenever the pressure of the ice became sufficient, I was more than ever satisfied with the determination to which I had previously come, of keeping the ships apart during the continuance of these untoward circumstances, in order to increase the chance of saving one of them from accidents of this nature. In the mean time the ice remained so close about the Hecla, that the slightest pressure producing in it a motion towards the shore must have placed us in a situation similar to that of the Griper; and our attention was therefore diverted to the more important object of providing, by every means in our power, for the security of the larger ship, as being the principal depôt of provisions and other resources.

At five P.M. Lieutenant Liddon acquainted me by letter that the Griper had at length righted, the ice having slackened a little around her, and that all the damage she appeared to have sustained was in her rudder, which was badly split, and would require some hours' labour to repair it whenever the ice should allow him to get it on shore.

Soon after midnight the ice pressed closer in upon the Hecla than before, giving her a heel of eighteen inches towards the shore, but without appearing to strain her in the slightest degree. By four P.M. the pressure had gradually decreased, and the ship had only three or four inches heel; in

an hour after she had perfectly righted, and the ice remained quiet for the rest of the day.

Every moment's additional detention now served to confirm me in the opinion I had formed as to the expediency of trying, at all risks, to penetrate to the southward whenever the ice would allow us to move at all, rather than persevere any longer in the attempts we had been lately making, with so little success, to push on directly to the westward. I therefore gave Lieutenant Liddon an order to run back a certain distance to the eastward whenever he could do so, without waiting for the *Hecla*, should that ship be still detained; and to look out for any opening in the ice to the southward which might seem likely to favour the object I had in view, waiting for me to join him should any such opening occur.

The breeze died away in the course of the night, just as the ice was beginning to separate and to drift away from the shore; and, being succeeded by a wind off the land, which is here very unusual, Lieutenant Liddon was enabled to sail upon the *Griper* at two A.M. on the 15th, in execution of the orders I had given him. As I soon perceived, however, that she made little or no way, the wind drawing more to the eastward on that part of the coast, and as the clear water was increasing along the shore to the westward much farther than we had yet seen it, I made the signal of recall to the *Griper*, with the intention of making another attempt, which the present favourable appearances seemed to justify, to push forward without delay in the desired direction. At five A.M., therefore, as soon as the snow had cleared away sufficiently to

allow the signal to be distinguished, we cast off and ran along shore, the wind having by this time veered to the E.b.N., and blowing in strong puffs out of the ravines as we passed them. We sailed along, generally at the distance of a hundred or a hundred and fifty yards from the beach, our soundings being from ten to seventeen fathoms; and, after running a mile and a half in a N.W.b.W. direction, once more found the ice offering an impenetrable obstacle to our progress westward, at a small projecting point of land just beyond us. We therefore hauled the ship into a berth which we were at this moment fortunate in finding abreast of us, and where we were enabled to place the Hecla within a number of heavy masses of grounded ice, such as do not often occur on this steep coast, which, compared with the situation we had lately left, appeared a perfect harbour. In the mean time, the wind had failed our consort when she was a mile and a half short of this place; and Lieutenant Lid- don, after endeavouring in vain to warp up to us, was obliged, by the ice suddenly closing upon him, to place her in-shore, in the first situation he could find, which proved to be in very deep water, as well as otherwise so insecure as not to admit a hope of saving the ship should the ice continue to press upon her.

Mr. Fisher found very good sport in our new station, having returned in the evening, after a few hours' excursion, with nine hares; the birds had, of late, almost entirely deserted us, a flock or two of ptarmigan and snow-buntings, a few glaucous gulls, a raven, and an owl, being all that had been met with for several days.

A fog, which had prevailed during the night, cleared away in the morning of the 16th, and a very fine day succeeded, with a moderate breeze from the westward. In order to have a clear and distinct view of the state of the ice, after twenty-four hours' wind from that quarter, Captain Sabine, Mr. Edwards, and myself, walked about two miles to the westward, along the high part of the land next the sea, from whence it appeared but too evident that no passage in this direction was yet to be expected. The ice to the west and southwest was as solid and compact, to all appearance, as so much land; to which, indeed, the surface of so many fields, from the kind of hill and dale I have before endeavoured to describe, bore no imperfect resemblance. I have no doubt that, had it been our object to circumnavigate Melville Island, or, on the other hand, had the coast continued its westerly direction instead of turning to the northward, we should still have contrived to proceed a little occasionally, as opportunities offered, notwithstanding the increased obstruction which here presented itself; but, as neither of these was the case, there seemed little or nothing to hope for from any farther attempts to prosecute the main object of the voyage in this place. I determined, therefore, no longer to delay the execution of my former intentions, and to make trial, if possible, of a more southern latitude, in which I might follow up the success that had hitherto attended our exertions.

The station at which the ships were now lying, and which is the westernmost point to which the navigation of the Polar Sea to the northward of the American Continent has yet been carried, is in lat-

itude $74^{\circ} 26' 25''$, and longitude, by chronometer, $113^{\circ} 64' 43''.5$.

The place where the Hecla was now secured, being the only one of the kind which could be found, was a little harbour, formed, as usual, by the grounded ice, some of which was fixed to the bottom in ten to twelve fathoms. One side of the entrance to this harbour consisted of masses of floes, very regular in their shape, placed quite horizontally, and broken off so exactly perpendicular as to resemble a handsome, well-built wharf. On the opposite side, however, the masses to which we looked for security were themselves rather terrific objects, as they leaned over so much towards the ship as to give the appearance of their being in the act of falling upon her deck; and as a very trifling concussion often produces the fall of much heavier masses of ice, when in appearance very firmly fixed to the ground, I gave orders that no guns should be fired near the ship during her continuance in this situation. The Griper was of necessity made fast near the beach in rather an exposed situation, and her rudder unshipped, in readiness for the ice coming in; it remained quiet, however, though quite close, during the day, the weather being calm and fine.

It was again nearly calm on the 19th, and the weather was foggy for some hours in the morning. In the evening, having walked to Cape Providence to see if there was any possibility of moving the ships, I found the ice so close that a boat could not have passed beyond the Cape; but a light air drifting the ice slowly to the eastward at this time, gave me some hopes of soon being enabled to make our escape from this tedious as well as vexatious con-

finement. At a quarter past eight it was high water by the shore; about this time the ice ceased driving to the eastward, and shortly after returned in the opposite direction.

At half past eleven P.M., some heavy pieces of the grounded ice, to which our bow-hawser was secured, fell off into the water, snapping the rope in two without injuring the ship. As, however, every alteration of this kind must materially change the centre of gravity of the whole mass, which already appeared in a tottering state, I thought it prudent to move the Hecla out of her harbour to the place where the Griper was lying, considering that a ship might easily be forced on shore by the ice without suffering any serious damage; but that one of those enormous masses falling upon her deck must inevitably crush or sink her.

The "young ice" had increased to the thickness of an inch and a half on the morning of the 23d, and some snow which had fallen in the night served to cement the whole more firmly together. On a breeze springing up from the westward, however, it soon began to acquire a motion to leeward, and at half an hour before noon had slackened about the ships sufficiently to allow us to warp them out, which was accordingly done, and all sail made upon them. The wind having freshened up from the W.N.W., the ships' heads were got the right way, and, by great attention to the sails, kept so till they had got abreast of Cape Providence, after which they were no longer manageable, the ice being more close than before. I have before remarked that the loose ice in this neighbourhood was heavy in proportion to the floes from which it had been

broken; and the impossibility of sailing among such ice, most of which drew more water than the *Hecla*, and could not, therefore, be turned by her weight, was this day rendered very apparent, the ships having received by far the heaviest shocks which they experienced during the voyage. They continued, however, to drive till they were about three miles to the eastward of Cape Providence, where the low land commences; when, finding that there was not any appearance of open water to the eastward or southward, and that we were now incurring the risk of being beset at sea, without a chance of making any farther progress, we hauled in for the largest piece of grounded ice we could see upon the beach, which we reached at six P.M., having performed six miles of the most difficult navigation I have ever known among ice. The *Hecla* was made fast in from eighteen to twenty feet water close to the beach, and the *Griper* in four fathoms, about half a mile to the westward of us.

The situation in which the ships were now placed, when viewed in combination with the shortness of the remaining part of the season, and the period to which our resources of every kind could be extended, was such as to require a more than ordinary consideration, in order to determine upon the measures most proper to be pursued for the advancement of the public service, and the security of the ships and people committed to my charge. Judging from the close of the summer of 1819, it was reasonable to consider the 7th of September as the limit beyond which the navigation of this part of the Polar Sea could not be performed, with tolerable safety to the ships or with any hope of farther suc-

cess. Impressed, however, with a strong sense of the efforts which it became us to make in the prosecution of our enterprise, I was induced to extend this limit to the 14th of September, before which day, on the preceding year, the winter might fairly be said to have set in. But even with this extension our prospect was not very encouraging: the direct distance to Icy Cape was between eight and nine hundred miles, while that which we had advanced towards it this season fell short of sixty miles.

By Mr. Hooper's report of the remains of provisions, it appeared that, at the present reduced allowance (namely, two thirds of the established proportion of the navy), they would last until the 30th of November, 1821; and that an immediate reduction to half allowance, which must, however, tend materially to impair the health and vigour of the officers and men, would only extend our resources to the 30th of April, 1822; it therefore became a matter of evident and imperious necessity, that the ships should be cleared from the ice before the close of the season of 1821, so as to reach some station where supplies might be obtained by the end of that, or early in the following year.

By the same report, it appeared that the fuel with which we were furnished could only be made to extend to a period of two years and seven months, or to the end of November, 1821; and this only by resorting to the unhealthy measure of both crews living on board the *Hecla* during six of the ensuing winter months.

The ships might be considered almost as effective as when the expedition left England; the wear and tear having been trifling, and the quantity of

stores remaining on board being amply sufficient, in all probability, for a much longer period than the provisions and fuel. The health of the officers and men continued also as good, or nearly so, as at the commencement of the voyage. Considering, however, the serious loss we had sustained in the lemon-juice, the only effectual antiscorbutic on which we could depend during at least nine months of the year in these regions, as well as the effects likely to result from crowding nearly one hundred persons into the accommodation intended only for fifty-eight, whereby the difficulty of keeping the inhabited parts of the ship in a dry and wholesome state would have been so much increased, there certainly seemed some reason to apprehend that a second winter would not leave us in possession of the same excellent health which we now happily enjoyed, while it is possible that the difficulty and danger of either proceeding or returning might have been increased.

A herd of musk-oxen being seen at a little distance from the ships, a party was despatched in pursuit; and Messrs. Fisher and Bushman were fortunate in killing a fine bull, which separated from the rest of the herd, being too unwieldy to make such good way as the others. He was, however, by no means caught by our people in fair chase; for, though these animals run with a hobbling sort of canter, that makes them appear as if every now and then about to fall, yet the slowest of them can far outstrip a man. In this herd were two calves, much whiter than the rest, the older ones having only the white saddle. In the evening, Sergeant Martin succeeded in killing another bull; these

two animals afforded a very welcome supply of fresh meat, the first giving us three hundred and sixty-nine, and the other three hundred and fifty-two pounds of beef, which was served in the same manner as before.*

It was gratifying to me to find that the officers unanimously agreed with me in opinion that any farther attempt to penetrate to the westward in our present parallel would be altogether fruitless, and attended with a considerable loss of time, which might be more usefully employed. They also agreed with me in thinking that the plan which I had adopted, of running back along the edge of the ice to the eastward, in order to look out for an opening that might lead us towards the American Continent, was in every respect the most advisable; and that, in the event of failing to find any such opening after a reasonable time spent in search, it would be expedient to return to England rather than risk the passing another winter in these seas, without the prospect of attaining any adequate object; namely, that of being able to start from an advanced station at the commencement of the following season.

At three P.M. we were abreast of Cape Hearne; and, as we opened the bay of the Hecla and Griper, the wind, as usual on this part of the coast, came directly out from the northward; but, as soon as we had stretched over to Bounty Cape, of which we were abreast at eight P.M., it drew once more

* The total quantity of game obtained for the use of the expedition during our stay upon the shores of Melville Island, being a period of nearly twelve months, was as follows: 3 musk oxen, 24 deer, 68 hares, 53 geese, 59 ducks, 144 ptarmigans: affording 3766 pounds of meat.

along the land from the westward. The distance between the ice and the land increased as we proceeded, and at midnight the channel appeared to be four or five miles wide, as far as the darkness of the night would allow of our judging; for we could at this period scarcely see to read in the cabin at ten o'clock. The snow which fell during the day was observed, for the first time, to remain upon the land without dissolving; thus affording a proof of the temperature of the earth's surface having again fallen below that of freezing, and giving notice of the near approach of another long and dreary winter.

At seven P.M., a fog coming on, we hauled up close to the edge of the ice, both as a guide to us in sailing during the continuance of the thick weather, and to avoid passing any opening that might occur in it to the southward. We were, in the course of the evening, within four or five miles of the same spot where we had been on the same day and at the same hour the preceding year; and, by a coincidence perhaps still more remarkable, we were here once more reduced to the same necessity as before, of steering the ships by one another for an hour or two; the Griper keeping the Hecla ahead, and our quartermaster being directed to keep the Griper right astern, for want of some better mode of knowing in what direction we were running. The fog froze hard as it fell upon the rigging, making it difficult to handle the ropes in working the ship, and the night was rather dark for three or four hours.

At a quarter past three on the morning of the 30th, we bore up to the eastward, the wind continuing fresh directly down Barrow's Strait, ex-

cept just after passing Prince Leopold's Islands, where it drew into Prince Regent's Inlet, and, as soon as we had passed this, again assumed its former westerly direction; affording a remarkable instance of the manner in which the wind is acted upon by the particular position of the land, even at a considerable distance from it. The islands were encumbered with ice to the distance of four or five miles all round them, but the Strait was generally as clear and navigable as any part of the Atlantic.

Having now traced the ice the whole way from the longitude of 114° to that of 90° , without discovering any opening to encourage a hope of penetrating it to the southward, I could not entertain the slightest doubt that there no longer remained a possibility of effecting our object with the present resources of the expedition; and that it was therefore my duty to return to England with the account of our late proceedings, that no-time might be lost in following up the success with which we had been favoured, should his majesty's government consider it expedient to do so. Having informed the officers and men in both ships of my intentions, I directed the full allowance of provisions to be in future issued, with such a proportion of fuel as might contribute to their comfort; a luxury which, on account of the necessity that existed for the strictest economy in this article, it must be confessed, we had not often enjoyed since we entered Sir James Lancaster's Sound. We had been on two thirds allowance of bread between ten and eleven months, and on the same reduced proportion of the other species of provisions between three and four; and, although this quantity is scarcely

enough for working men for any length of time, I believe the reduction of fuel was generally considered by far the greater privation of the two.

As it appeared to me that considerable service might be rendered by a general survey of the western coast of Baffin's Bay, which, from Sir James Lancaster's Sound southward, might one day become an important station for our whalers, I determined to keep as close to that shore during our passage down as the ice and the wind would permit; and as the experience of the former voyage had led us to suppose that this coast would be almost clear of ice during the whole of September, I thought that this month could not be better employed than in the examination of its numerous bays and inlets. Such an examination appeared to me more desirable, from the hope of finding some new outlet into the Polar Sea in a lower latitude than that of Sir James Lancaster's Sound; a discovery which would be of infinite importance towards the accomplishment of the Northwest Passage.

CHAPTER XI.

Progress down the Western Coast of Baffin's Bay.—Meet with the Whalers.—Account of some Esquimaux in the Inlet called the River Clyde.—Continue the Survey of the Coast till stopped by Ice in the Latitude of $68\frac{1}{4}^{\circ}$.—Obliged to run to the Eastward.—Fruitless Attempts to regain the Land, and final Departure from the Ice.—Remarks upon the probable Existence and Practicability of a Northwest Passage, and upon the Whale Fishery.—Boisterous Weather in Crossing the Atlantic.—Loss of the Hecla's Bowsprit and Foremast.—Arrival in England.

THE wind continuing fresh from the northward on the morning of the 1st of September, we bore up and ran along the land, taking our departure from the flagstaff in Possession Bay, bearing W. S. W. five miles, at half past four A. M.

The ice led us off very much to the eastward after leaving Pond's Bay; and the weather became calm, with small snow towards midnight. In this day's run, the compass-courses were occasionally inserted in the logbook, being the first time that the magnetic needle had been made use of on board the Hecla, for the purposes of navigation, for more than twelve months.

On the morning of the 3d we passed some of the highest icebergs I have ever seen, one of them being not less than one hundred and fifty to two hundred feet above the sea, judging from the height of the Griper's masts when near it.

The vegetation was tolerably luxuriant in some places upon the low land which borders the sea, consisting principally of the dwarf-willow, sorrel,

saxifrage, and poppy, with a few roots of scurvy-grass. There was still a great deal of snow remaining even on the lower parts of the land, on which were numerous ponds of water; on one of these, a pair of young red-throated divers, which could not rise, were killed; and two flocks of geese, one of them consisting of not less than sixty or seventy, were seen by Mr. Hooper, who described them as being very tame, running along the beach before our people, without rising, for a considerable distance. Some glaucous gulls and plovers were killed, and we met with several tracks of bears, deers, wolves, foxes, and mice. The coxswain of the boat found upon the beach part of the bone of a whale, which had been cut at one end by a sharp instrument like an axe, with a quantity of chips lying about it, affording undoubted proof of this part of the coast having been visited at no distant period by Esquimaux; it is more than probable, indeed, that they may inhabit the shores of this inlet, which time would not now permit us to examine. More than sixty icebergs of very large dimensions were in sight from the top of the hill, together with a number of extensive floes to the northeast and southeast, at the distance of four or five leagues from the land.

While occupied in attending to the soundings, soon after noon, our astonishment may readily be conceived on seeing from the masthead a ship, and soon after two others, in the offing, which were soon ascertained to be whalers, standing in towards the land. They afterward bore up to the northward along the edge of the ice which intervened between us, and we lost sight of them at night. It

was now evident that this coast, which had hitherto been considered by the whalers as wholly inaccessible in so high a latitude, had become a fishing station; like that on the opposite or Greenland shore; and the circumstance of our meeting so few whales in Sir James Lancaster's Sound this season was at once accounted for by supposing, what, indeed, we afterward found to be the case, that the fishing-ships had been there before us, and had, for a time, scared them from that ground.

It was so squally on the morning of the 5th that we could scarcely carry our double-reefed topsails, while, as we afterward learned from the fishing-ships, which were in sight at daylight, there was scarcely a breath of wind at a few leagues' distance from the land. We coasted this low shore, as we had done in the preceding voyage, at the distance of two or three miles, having from twenty-three to twenty-nine fathoms water. We here met with another of our fishing-ships, which proved to be the *Lee*, of Hull, Mr. Williamson, master; from whom we learned, among other events of a public nature which were altogether new to us, the public calamity which England had sustained in the death of our late venerable and beloved sovereign, and also the death of his Royal Highness the Duke of Kent. Mr. Williamson, among others, had succeeded in getting across the ice to this coast as high as the latitude of 73° , and had come down to this part in pursuit of the fish. One or two of the ships had endeavoured to return home by running down this coast, but had found the ice so close about the latitude of $69\frac{1}{2}^{\circ}$ as to induce most of the others to sail back to the northward, in order to get back in

the same way that they came. Mr. Williamson also reported his having, a day or two before, met with some Esquimaux in the inlet named the River Clyde in 1818, which was just to the southward of us. Considering it a matter of some interest to communicate with these people, who had, probably, not been before visited by Europeans, and that it might, at the same time, be useful to examine the inlet, I bore up, as soon as I had sent our despatches and letters on board the *Lee*, and stood in towards the rocky islet, called Agnes's Monument, passing between it and the low point which forms the entrance to the inlet on the northern side.

At six in the evening of the 6th, being near the outermost of the islands with which we afterward found this inlet to be studded, we observed four canoes paddling towards the ships; they approached with great confidence, and came alongside without the least appearance of fear or suspicion. While paddling towards us, and, indeed, before we could plainly perceive their canoes, they continued to vociferate loudly; but nothing like a song, nor even any articulate sound, which can be expressed by words, could be distinguished. Their canoes were taken on board by their own desire, plainly intimated by signs, and with their assistance, and they at once came up the side without hesitation. These people consisted of an old man, apparently much above sixty, and three younger, from nineteen to thirty years of age. As soon as they came on deck, their vociferations seemed to increase with their astonishment, and, I may add, their pleasure; for the reception they met with seemed to create no less joy than surprise. When-

ever they received a present or were shown anything which excited fresh admiration, they expressed their delight by loud and repeated ejaculations, which they sometimes continued till they were quite hoarse and out of breath with the exertion. This noisy mode of expressing their satisfaction was accompanied by a jumping, which continued for a minute or more, according to the degree of the passion which excited it, and the bodily powers of the person who exercised it; the old man being rather too infirm, but still doing his utmost to go through the performance.

After some time passed on deck, during which a few skins and ivory knives were bought from them, they were taken down into the cabin. The younger ones received the proposal to descend somewhat reluctantly, till they saw that their old companion was willing to show them the example, and they then followed without fear. Although we were much at a loss for an interpreter, we had no great difficulty in making the old man understand, by showing him an engraved portrait of an Esquimaux, that Lieutenant Beechey was desirous of making a similar drawing of him. He was accordingly placed on a stool near the fire, and sat for more than an hour with very tolerable composure and steadiness, considering that a barter for their clothes, spears, and whalebone was going on at the same time near him. He was, indeed, kept quiet by the presents which were given him from time to time; and when this failed, and he became impatient to move, I endeavoured to remind him that we wished him to keep his position, by placing my hands before me, holding up my head and as-

suming a grave and demure look. We now found that the old gentleman was a mimic, as well as a very good-natured and obliging man; for, whenever I did this, he always imitated me in such a manner as to create considerable diversion among his own people as well as ours, and then very quietly kept his seat. While he was sitting for his picture, the other three stood behind him, bartering their commodities with great honesty, but in a manner which showed them to be no strangers to traffic. If, for instance, a knife was offered for any article, they would hesitate for a short time, till they saw we were determined to give no higher price, and then at once consented to the exchange. In this case, as well as when anything was presented to them, they immediately licked it twice with their tongues, after which they seemed to consider the bargain satisfactorily concluded. The youngest of the party very modestly kept behind the others, and, before he was observed to have done so, missed several presents, which his less diffident, though not importunate companions had received. As the night closed in they became desirous to depart, and they left us before dark, highly delighted with their visit. As I had purchased one of their canoes, a boat was sent to land its late owner, as only one person can sit in each. Mr. Palmer informed me, that, in going on shore, the canoes could beat our boat very much in rowing whenever the Esquimaux chose to exert themselves, but they kept close to her the whole way. During the time that they were on board, we had observed in them a great aptness for imitating certain of our words; and, while going on shore, they took a par-

ticular liking to the expression of "Hurra, give way!" which they heard Mr. Palmer use to the boat's crew, and which they frequently imitated, to the great amusement of all parties.

Soon after we had landed on the 7th, the old Esquimaux and one of his younger companions paddled over from the main land, and joined us upon the island. They brought with them, as before, some pieces of whalebone and sealskin dresses, which were soon disposed of, great care being taken by them not to produce more than one article at a time; returning to their canoes, which were at a little distance from our boat, after the purchase of each of their commodities, till their little stock was exhausted. Considering it desirable to keep up among them the ideas of fair and honest exchange, which they already seemed to possess in no ordinary degree, I did not permit them to receive anything as presents till all their commodities had been regularly bought. While we were waiting to obtain the sun's meridian altitude, they amused themselves in the most good-natured and cheerful manner with the boat's crew; and Lieutenant Hoppner, who, with Mr. Beverly, had joined us in the Griper's boat, took this opportunity of making a drawing of the young man. It required, however, some show of authority, as well as some occasional rewards, to keep him quietly seated on the rock for a time sufficient for this purpose; the inclination they have to jump about, when much pleased, rendering it a penalty of no trifling nature for them to sit still for half an hour together. To show their disposition to do us what little service was in their power, he afterward em-

ployed himself in sharpening the seamen's knives, which he did with great expertness on any flat smooth stone, returning each, as soon as finished, to its proper owner, and then making signs for another, which he sharpened and returned in the same way, without any attempt, and apparently without the smallest desire, to detain it. The old man was extremely inquisitive, and directed his attention to those things which appeared useful rather than to those which were merely amusing. An instance of this occurred on my ordering a tin canister of preserved meat to be opened for the boats' crews' dinner. The old man was sitting on the rock, attentively watching the operation, which was performed with an axe struck by a mallet, when one of the men came up to us with a looking-glass. I held it up to each of the Esquimaux, who had also seen one on the preceding evening, and then gave it into each of their hands successively. The younger one was quite in raptures, and literally jumped for joy for nearly a quarter of an hour: but the old man, having had one smile at his own queer face, immediately resumed his former gravity, and, returning me the glass, directed his whole attention to the opening of the canister, and, when this was effected, begged very hard for the mallet which had performed so useful an office, without expressing the least wish to partake of the meat, even when he saw us eating it with good appetites. Being prevailed on, however, to taste a little of it, with some biscuit, they did not seem at all to relish it, but ate a small quantity, from an evident desire not to offend us, and then deposited the rest safely in their canoes.

They could not be persuaded to taste any rum after once smelling it, even when much diluted with water. I do not know whether it be a circumstance worthy of notice, that when a kaleidoscope or a telescope was given them to look into, they immediately shut one eye; and one of them used the right, and the other the left eye.

In getting out of their canoes, as well as into them, great care is required to preserve the balance of these frail and unsteady coracles, and in this they generally assist each other. As we were leaving the island, and they were about to follow us, we lay on our oars to observe how they would manage this; and it was gratifying to see that the young man launched the canoe of his aged companion, and, having carefully steadied it alongside the rock till he had safely embarked, carried his own down, and contrived, though with some difficulty, to get into it without assistance. They seem to take especial care, in launching their canoes, not to rub them against the rocks, by placing one end gently in the water, and holding the other up high, till it can be deposited without risk of injury. As soon as we commenced rowing, the Esquimaux began to vociferate their newly-acquired expression of "Hurra, give way!" which they continued at intervals, accompanied by the most good-humoured merriment, as we crossed over to the main land. There being now a little sea, occasioned by a weather tide, we found that our boats could easily beat their canoes in rowing, notwithstanding their utmost endeavours to keep up with us.

The two Esquimaux tents which we were now going to visit were situated just within a low point

of land, forming the eastern side of the entrance to a considerable branch of the inlet, extending some distance to the northward. The situation is warm and pleasant, having a southwesterly aspect, and being in every respect well adapted for the convenient residence of these poor people. We landed outside the point, and walked over to the tents, sending our boats, accompanied by the two canoes, round the point to meet us. As soon as we came in sight of the tents, every living animal there, men, women, children, and dogs, were in motion; the latter to the top of the hill out of our way, and the rest to meet us with loud and continued shouting; the word *pilletay* [give me] being the only articulate sound we could distinguish amid the general uproar. Besides the four men whom we had already seen, there were four women, one of whom, being about the same age as the old man, was probably his wife; the others were about thirty, twenty-two, and eighteen years of age. The first two of these, whom we supposed to be married to the two oldest of the young men, had infants slung in a kind of bag at their backs, much in the same way as gipsies are accustomed to carry their children. There were also seven children, from twelve to three years of age, besides the two infants in arms, or, rather, behind their mothers' backs; and the woman of thirty was with child.

We began, as before, by buying whatever they had to dispose of, giving in exchange knives, axes, brass kettles, needles, and other useful articles, and then added such presents as might be farther serviceable to them. From the first moment of our arrival until we left them, or, rather, till we had no-

thing left to give, the females were particularly importunate with us, and "pilletay" resounded from the whole troop, wherever we went; they were extremely anxious to obtain our buttons, apparently more on account of the ornament of the crown and anchor which they observed upon them than from any value they set upon their use; and several of these were cut off our jackets to please their fancy. When I first endeavoured to bargain for a sledge, the persons I addressed gave me distinctly to understand by signs that it was not their property, and pointed towards the woman who owned it; though my ignorance in this respect offered a good opportunity of defrauding me, had they been so inclined, by receiving an equivalent for that which did not belong to them: on the owner's coming forward, the bargain was quickly concluded. The pikes which I gave in exchange underwent the usual ceremony of licking, and the sledge was carried to our boat with the most perfect understanding on both sides. In another instance, an axe was offered by some of the Griper's gentlemen as the price of a dog, to which the woman who owned the animal consented. To show that we placed full confidence in them, the axe was given to her before the dog was caught, and she immediately went away with a kind of halter or harness of thongs, which they use for this purpose, and honestly brought one of the finest among them, though nothing would have been easier than to evade the performance of the contract. The readiness, however, with which they generally parted with their commodities, was by no means the effect of fear, nor did it always depend on the value of

the articles offered in exchange; for having, as I thought, concluded a bargain for a second canoe belonging to the old woman, I desired the men to hand it down to the boat; but I soon perceived that I had misunderstood her, for she clung fast to the canoe, and cried most piteously till it was set down; I then offered a larger price than before, but she could not be induced to part with it.

The stature of these people, like that of Esquimaux in general, is much below the usual standard. The height of the old man, who was rather bent by age, was four feet eleven inches; and that of the other men, from five feet four and a half to five feet six inches. Their faces are round and plump in the younger individuals; skin smooth; complexion not very dark, except that of the old man; teeth very white; eyes small; nose broad, but not very flat; hair black, straight, and glossy; and their hands and feet extremely diminutive. The old man had a gray beard, in which the black hairs predominated, and wore the hair rather long upon his upper lip, which was also the case with the eldest of the three others.

The grown-up females measured from four feet ten to four feet eleven inches. The features of the two youngest were regular; their complexions clear, and by no means dark; their eyes small, black, and piercing; teeth beautifully white and perfect; and, although the form of their faces is round and chubby, and their noses rather flat than otherwise, their countenances might, perhaps, be considered pleasing, even according to the ideas of beauty which habit has taught us to entertain. Their hair, which is jet-black, hangs down long and

loose about their shoulders, a part of it on each side being carelessly platted, and sometimes rolled up into an awkward lump, instead of being neatly tied on the top of the head, as the Esquimaux women in most other parts are accustomed to wear it. The youngest female had much natural bashfulness and timidity, and we considered her to be the only unmarried one, as she differed from the other three in not being tattooed upon the face. Two of them had their hands tattooed also, and the old woman had a few marks of the same kind about each wrist. None of the men or children were thus distinguished.

The children were generally good-looking, and the eldest boy, about twelve years of age, was a remarkably fine and even handsome lad. They were rather scared at us at first; but kind treatment and a few trifling presents soon removed their fears, and made them almost as importunate as the rest.

The dress of the men consists of a sealskin jacket, with a hood, which is occasionally drawn over the head, of which it forms the only covering. The breeches are also generally of sealskin, and are made to reach below the knee; and their boots, which meet the breeches, are made of the same material. In this dress we perceived no difference from that of the other Esquimaux, except that the jacket, instead of having a pointed flap before and behind, as usual, was quite straight behind, and had a sort of scallop before in the centre. In the dress of the women there was not so much regard to decency as in that of the men. The jacket is of sealskin, with a short, pointed flap before, and a

long one behind, reaching almost to the ground. They had on a kind of drawers, similar to those described by Crantz as the summer dress of the Greenland women, and no breeches. The drawers cover the middle part of the body, from the hips to one third down the thigh, the rest of which is entirely naked as far as the knee. The boots are like those of the men; and, besides these, they have a pair of very loose leggins, as they may be called, which hang down carelessly upon the top of the boots, suffering their thighs to be exposed in the manner before described, but which may be intended occasionally to fasten up, so as to complete the covering of the whole body. The children are all remarkably well clothed; their dress, both in male and female, being in every respect the same as that of the men, and composed entirely of sealskin very neatly sewed.

The tents which compose their summer habitations are principally supported by a long pole of whalebone, fourteen feet high, standing perpendicularly, with four or five feet of it projecting above the skins which form the roof and sides. The length of the tent is seventeen, and its breadth from seven to nine feet, the narrowest part being next the door, and widening towards the inner part, where the bed, composed of a quantity of the small shrubby plant, the *Andromeda Tetragona*, occupies about one third of the whole apartment. The pole of the tent is fixed where the bed commences, and the latter is kept separate by some pieces of bone laid across the tent from side to side. The door, which faces the southwest, is also formed of two pieces of bone, with the upper ends fastened to-

gether, and the skins are made to overlap in that part of the tent, which is much lower than the inner end. The covering is fastened to the ground by curved pieces of bone, being generally parts of the whale; the tents were ten or fifteen yards apart, and about the same distance from the beach.

The canoe which I purchased, and which was one of the best of the five that we saw, is sixteen feet eleven inches in length, and its extreme breadth two feet one inch and a half; two feet of its fore end are out of the water when floating. It differs from the canoe of Greenland in being somewhat lower at each end, and also in having a higher rim or gunwale, as it may be termed, round the circular hole where the man sits, which may make them somewhat safer at sea. Their construction is, in other respects, much the same; the timbers or ribs, which are five or six inches apart, as well as the fore and aft connecting pieces, being of whalebone or drift-wood, and the skins with which they were covered, those of the seal and walrus. When the canoes are taken on the shore, they are carefully placed upon two upright piles or pillars of stones, four feet high from the ground, in order to allow the air to pass under to dry them, and prevent their rotting. The paddle is double and made of fir, the edges of the blade being covered with hard bone to secure them from wearing.

The spears or darts which they use in killing seals and other sea animals, consist, like the harpoons of our fishermen, of two parts, a staff, and the spear itself; the former is usually of wood, when so scarce and valuable a commodity can be obtained, from three and a half to five feet in length,

and the latter of bone, about eighteen inches long, sometimes tipped with iron, but more commonly ground to a blunt point at one end, while the other fits into a socket in the staff, to which it is firmly secured by thongs. The lines which they attach to their spears are very neatly cut out of sealskins, and, when in a state of preparation, are left to stretch till dry between the tents, and then made up into coils for use. They make use of a bladder fastened to the end of the line, in the same manner as the other Esquimaux. Besides the spears, we purchased an instrument having a rude hook of iron let into a piece of bone, and secured by thongs to a staff, the hook being sharply pointed, but not barbed. While we were on the island (to which I had applied the name of Observation Island), it happened that a small bird flew near us, when one of the Esquimaux made a sign of shooting it with a bow and arrow in a manner which could not be misunderstood. It is remarkable, therefore, that we could not find about their tents any of these weapons, except a little one of five or six inches long, the bow being made of whalebone and the arrow of fir, with a feather at one end and a blunt point of bone at the other, evidently appearing to be a child's toy, and intended, perhaps, to teach the use of it at an early age.

The runners of the only sledge we saw were composed of the right and left jawbones of a young whale, being nine feet nine inches long, and one foot seven inches apart, and seven inches high from the ground. They are connected by a number of parallel pieces, made out of the ribs of the whale, and secured transversely with seizings of whalebone,

so as to form the bottom of the sledge, and the back is made of two deers' horns placed in an upright position. The lower part of the runners is shod with a harder kind of bone, to resist the friction against the ground. The whole vehicle is rudely executed, and, being nearly twice the weight of the sledges we saw among the northern Esquimaux, is probably intended for carrying heavy burdens. The dogs were not less than fifty or sixty in number, and had nothing about them different from those on the eastern coast of Baffin's Bay, except they do not stand near so high as those of the latitude of 76° . They are very shy and wild, and the natives had great difficulty in catching them while we were by, as well as holding them in when caught. Some of them have much more of the wolf in their appearance than others, having very long heads and sharp noses, with a brushy tail, almost always carried between the legs; while the bodies of others are less lank, as well as their noses less sharp, and they carry their tails handsomely curled over their backs: their colour varied from quite dark to brindled. The ravenous manner in which they devour their food is almost incredible. Both the old and young ones, when a bird is given them, generally swallow feathers and all; and an old dog that I purchased, though regularly fed while on board by a person appointed for that purpose, ate up, with great avidity, a large piece of canvass, a cotton handkerchief, which one of the men had just washed and laid down by his side, and a part of a check shirt. The young dogs will at any time kill themselves by over-eating if permitted. The children appeared to have some right of property in the

smaller puppies, or else their parents are very indulgent to them, for several bargains of this kind were made with them, without any objection or interference on the part of the parents, who were standing by at the time.

Within a few stones, irregularly placed in a corner of each tent, was a lump of oil and moss, and over each of these was suspended a small stone vessel of an oblong shape, and broader at the top than at the bottom, containing a large mess of sea-horse flesh, with a great quantity of thick gravy. Some ribs of this meat were by no means bad looking; and, but for the blood mixed with the gravy, and the dirt which accompanied the cooking, might perhaps be palatable enough. I bargained with a woman for one of the stone vessels, giving her a brass kettle in exchange. Before she gave it into my possession, she emptied the meat into another vessel, and then, with the flap of her jacket, wiped out the remains of the gravy; thus combining with what our notions of cleanliness incline us to consider a filthy act, an intention of decency and a desire to oblige us, which, however inconsistent, it was pleasing to observe. Some of their vessels are made of whalebone, in a circular form, one piece being bent into the proper shape for the sides, and another flat piece, of the same material, sewn to it for a bottom, so closely as to make it perfectly water tight. Their knives are made of the tusks of the walrus, cut or ground sufficiently thin for the purpose, and retaining the original curve of the tusk, so as to resemble the little swords which children have as toys in England. As they do not appear to have any instrument like a saw, great time and

labour must be required in making one of these knives, which seem to answer most of the purposes to which they have occasion to apply them.

From the description given to us by Mr. Williamson, we found that these were the same persons who had been seen by the Lee's people; but we had several proofs of their having had some previous communication, directly or indirectly, with the civilized world; such as some light-blue beads, strung by themselves on thin leathern threads; and an instrument for chopping, very much resembling a cooper's adze, which had evidently been secured to a handle of bone for some time past, and of which the iron was part of an old file.

The short time we were among them, as well as the want of an interpreter, prevented our obtaining much of the information, which would have been interesting, respecting the language, manners, and number of this tribe of Esquimaux. They call the bear *nennook*, the deer *tooktook*, and the hare *ookalik*, being nearly the same words as those used on the eastern coast of Baffin's Bay. As it was considered a matter of some interest to ascertain whether they were acquainted with the musk-ox, a drawing of that animal was put before the men who were on board. The small size of it seemed, at first sight, to confound them; but, as soon as the real head and horns were produced, they immediately recognised them, and eagerly repeated the word *oomingmack*, which at once satisfied us that they knew the musk-ox, and that this was the animal spoken of by the Esquimaux of Greenland, under the same name, somewhat differently pronounced.

To judge by their appearance, and what is, perhaps, a better criterion, the number of their children, there could be little doubt that the means of subsistence which they possess are very abundant but of this we had more direct proof by the quantity of sea-horses and seals which we found concealed under stones along the shore of the north branch, as well as on Observation Island. Mr. Fife reported that, in sounding the north branch, he met with their winter huts above two miles above the tents on the same shore, and that they were partly excavated from a bank facing the sea, and the rest built round with stones.

We saw no appearance of disease among the seventeen persons who inhabited the tents, except that the eyes of the old couple were rather blear, and a very young infant looked pale and sickly. The old man had a large scar on one side of his head, which he explained to us very clearly to be a wound he had received from a *nennook* (bear). Upon the whole, these people may be considered in possession of every necessary of life, as well as of most of the comforts and conveniences which can be enjoyed in so rude a state of society. In the situation and circumstances in which the Esquimaux of North Greenland are placed, there is much to excite compassion for the low state to which human nature appears to be there reduced; a state in few respects superior to that of the bear or the seal which they kill for their subsistence. But, with these, it was impossible not to experience a feeling of a more pleasing kind: there was a respectful decency in their general behaviour, which at once struck us as very different from that of the

other untutored Esquimaux, and in their persons there was less of that intolerable filth by which these people are so generally distinguished. But the superiority for which they are the most remarkable is, the perfect honesty which characterized all their dealings with us. During the two hours that the men were on board, and for four or five hours that we were subsequently among them on shore (on both which occasions the temptation to steal from us was perhaps stronger than we can well imagine, and the opportunity of doing so by no means wanting), not a single instance occurred, to my knowledge, of their pilfering the most trifling article. It is pleasing to record a fact no less singular in itself than honourable to these simple people.

Having made the necessary observations, we went to the tents to take leave of our new acquaintance. The old man seemed quite fatigued with the day's exertions; but his eyes sparkled with delight, and we thought with gratitude too, on being presented with another brass kettle to add to the stores with which we had already enriched him. He seemed to understand us when we shook him by the hand; the whole group watched us in silence as we went into the boat, and, as soon as we had rowed a few hundred yards from the beach, quietly returned to their tents.

The wind being contrary on the 8th, we made very little progress to the southward. The soundings continuing as regular as before, we stood inshore to eleven fathoms, and put the trawl overboard for an hour or two in the afternoon, bringing up a great quantity of sea-eggs, a few very small oysters, and some marine insects, but nothing that could furnish us with a fresh meal.

The wind having fallen, we made little progress to the southeast till the morning of the 12th, when a light breeze springing up from the southwest, all sail was made to examine the state of the ice. On approaching the floes, however, we found such a quantity of bay-ice, the formation of which upon the surface had been favoured by the late calm weather, that the Hecla was soon stopped altogether; a circumstance which gave us, as usual, much trouble in extricating ourselves from it, but not very material as regarded our farther progress to the southward, the floes being found to stretch quite close in to the land, leaving no passage whatever between them. The compasses now traversed very freely, and were made use of for the purposes of navigation in the ordinary way.

The fog continued so thick on the 16th as to oblige us to keep the ships fast to the floe. In the afternoon the deep-sea clamms were sent down to the bottom with two thousand and ten fathoms of line, which were fifty-eight minutes in running out, during which time no perceptible check could be observed, nor even any alteration in the velocity with which the line ran out. In hauling it in again, however, which occupied both ships' companies above an hour and a half, we found such a quantity of the line covered with mud as to prove that the whole depth of water was only eight hundred and nine fathoms, the rest of the line having continued to run out by its own weight, after the instrument had struck the ground. I have before had occasion to remark that, on this account, it is not easy to ascertain the actual depth of the sea in the usual manner when it exceeds five or six hundred fathoms.

The ships were secured to a berg at six P.M. of the 18th, and the wind having freshened up to a gale from the N.W.b.N., with some swell, we were much annoyed during the night by the ice which drifted under the lee of it, and on which the ships were constantly striking with a heavy shock, such as no others could have long withstood. This danger is avoided by ships lying very close under the lee of a berg, but a much greater is thereby incurred from the risk of the berg's upsetting; a circumstance which is always to be apprehended in a swell, and which must be attended with certain destruction to a ship moored very near to it.

On the 24 and 25th we continued our progress to the southward, but without any success in approaching, or even getting sight of, the land; the ice being as close and compact as when we sailed along the margin of it in July of the preceding year. Soon after noon on the 24th we crossed the Arctic Circle, having been within it fourteen months and three weeks.

On the morning of the 26th we again stood to the westward as much as the ice would allow, but were soon obliged by it to keep away to the southward, precluding every hope of making the land on that part of the coast which it would have been most interesting to explore. In the afternoon, after various attempts to get to the westward, appearances became more unpromising than ever, the packed ice extending from N.b.E. round to S.W. There were, indeed, parts of the ice which, with constant daylight, a ship might have entered with some probability of success; but, with twelve hours' night, the attempt must have been attended

with a degree of risk which nothing but a very important object could justify. The wind had now freshened up from the N.N.W., and the mercury in the barometer fell with unusual rapidity, with every other appearance of an approaching gale. I was therefore under the necessity of admitting the conclusion that, under existing circumstances, the season was now too far advanced, and the state of the ice too unfavourable, to allow of any farther examination of the coast; and I determined, therefore, to make the best of my way to England. The boats were accordingly hoisted in, and the ships made snug while in smooth water under the lee of the ice, and a course was then shaped to the E.S.E., in order to obtain an offing before we bore away to the southward.

On the second of October, in scudding before the wind under the main-topsail, a heavy sea struck the Hecla on the larboard quarter, rendering it necessary to press her forward under more canvass, by which we lost sight of the Griper in the course of the morning. As soon as the weather moderated, we hove-to for her; but, as she did not make her appearance, having, as we afterward learned, been obliged to lie-to during the height of the gale, we continued our course out of the Straits, and did not again meet with the Griper till our return to England.

On the afternoon of the 16th, the sea being very high and irregular, and the ship pitching with considerable violence, the bowsprit was carried away close to the gammoning, and the foremast and main-topmast immediately followed it over the side. The wreck was quickly cleared; and, by

the greatest activity and energy on the part of the officers and men, the mainyard and mainmast were saved, the latter having been endangered by the foremast falling across the stay, and the former by the wreck of the main-topmast and top-sail-yard lying upon it. Notwithstanding the continuance of the gale, and the uneasy motion of the ship for the next two days, we succeeded in getting up our jury masts so as to make sail on the evening of the 18th.

On the 29th we made Buchaness, and on the following day, the wind having come to the southward, so as to make our progress very slow, I landed at Peterhead, accompanied by Captain Sabine and Mr. Hooper; having first, in compliance with their lordships' directions, demanded from the officers, petty officers, and all other persons on board the Hecla, the logs, journals, charts, drawings, and other documents which the voyage had furnished, and directed Lieutenant Beechey to proceed with all possible despatch to Leith. Captain Sabine and myself proceeded without delay to London, where we arrived on the morning of the 3d of November.

SECOND VOYAGE

FOR THE DISCOVERY OF A

NORTHWEST PASAGE

PRELIMINARY CHAPTER.

THE discoveries made by the expedition to the northwest in the years 1819-20 being such as to afford a strong presumption in favour of the existence of a passage from the Atlantic to the Pacific in that direction, his majesty commanded another attempt to be made to effect that object; and the lords commissioners of the admiralty were pleased once more to honour me with the command of an expedition, to be equipped at Deptford for that purpose. The Hecla having been found well adapted to this service, a second ship of precisely the same class was now selected, and I received my commission for his majesty's ship the Fury, of three hundred and seventy-seven tons burden, on the 30th of December, 1820. The Hecla was recommissioned by Captain George Francis Lyon on the 4th of January following.

In our official instructions I was directed to proceed, as quickly as might be consistent with every precaution, towards or into Hudson's Strait until

the ice was met with, when the Nautilus transport, which was directed by the navy board to be placed at my disposal, was to be cleared of its provisions and stores. We were then to penetrate to the westward, through Hudson's Strait, until we reached (either in Repulse Bay, or on other part of the shores of Hudson's Strait to the north of Wager River) some part of the coast, which I felt convinced was a portion of the *Continent* of America.

If we happily reached the Pacific, we were to proceed to Kamschatka, from thence to the Sandwich Islands or Canton, and, having refitted the ships and refreshed the crews, to return to England by such route as might be deemed convenient.

CHAPTER I.

Passage across the Atlantic.—Removal of Stores from the Nautilus Transport, at the Margin of the Ice.—Departure of the Nautilus for England.—Enter the Ice in Hudson's Strait.—Perilous Situation of the Hecla, and loss of her Anchor.—Meet with the Hudson's Bay Ships.—Passage up the Strait, and Communication with the Natives inhabiting the Northern Shores.—Pass the Trinity Islands of Fox.—Arrival off Southampton Island, where the Researches of the Expedition commence.

THE FURY, HECLA, and NAUTILUS transport were completed for sea towards the latter part of the month of April, and on the 29th, at ten A.M., the Fury was taken in tow by the Eclipse steamboat, which vessel had before taken us down

the river on a similar occasion. The Hecla reached the moorings on the following day, and the Nautilus on the first of May.

Nothing of consequence happened during our passage across the Atlantic; but, after entering Davis's Straits, we had for several days variable and unsettled weather, the wind blowing principally from the southward, with a heavy swell from the same quarter. On the 14th we met with the first iceberg, being in lat. $60^{\circ} 48'$, long. $53^{\circ} 13'$.

Having now reached the situation in which I was directed, by my instructions, to clear the Nautilus of our stores, I gave Lieutenant Scrymgour his instructions to return to England; and at one A.M. on the 1st of July he parted company, while the Fury and Hecla stood in towards the ice. A whaler, deeply laden, and apparently homeward bound, was at this time in sight to the eastward.

At seven P.M., Tuesday, 3d July, the ice opposed our farther progress to the westward, covering the whole sea as far as the eye could reach in that direction; the ships were therefore, of necessity, hove to, in order to await some change in our favour. The ice here consisted principally of large though loose masses of broken floes, none covering more than a quarter of an acre, and few so much, but having many high hummocks, and drawing a great deal of water. We counted also above thirty bergs in sight at one time, and observed that many of them were carried about by the tides with great rapidity.

The wind shifted to the southeastward in the night of the 5th, with a strong breeze and heavy rain; and, on the following morning, when the

ebb-tide opened the ice a little, a considerable swell was admitted from the sea, causing the ships to strike violently and almost constantly on the masses of ice alongside of them. In this situation they continued for several hours so completely beset as to render it impossible to extricate them, and drifting about at random with the tides. The Hecla was, by a different set of the stream, separated five or six miles from the Fury, while both ships were equally hampered.

On the 13th, both ships' companies were exercised in firing at a target on the ice, as well for the purpose of giving them occupation as of finding out who were the best shots. On the same afternoon we saw two ships beset to the northward, which we supposed to be those bound to the Hudson's Bay factories. They were joined the next day by a third ship, which afterward proved to be, as we conjectured, the Lord Wellington, having on board settlers for the Red River.

The ice being rather less close on the morning of the 16th, we made sail to the westward at 7.45 A.M., and continued "boring" in that situation the whole day, which enabled us to join the three strange ships. They proved to be, as we had supposed, the Prince of Wales, Eddystone, and Lord Wellington, bound to Hudson's Bay. I sent a boat to the former to request Mr. Davidson, the master, to come on board, which he immediately did. From him we learned that the Lord Wellington, having on board one hundred and sixty settlers for the Red River, principally foreigners, of both sexes and every age, had now been twenty days among the ice, and had been drifted about in

various directions at no small risk to the ship. By the Prince of Wales we sent our last letters for our friends in England.

Proceeding slowly to the westward, we had reached at noon on the 21st the lat. of $61^{\circ} 50' 13''$, long., by chronometers, $67^{\circ} 07' 35''$. In this situation several islands were in sight to the northward and westward, and, among the rest, a remarkable one called Saddle-back on account of its shape. The wind backing to the westward in the afternoon, we anchored the ships to the largest floe-piece we could find, there not being room to beat to the windward. While thus employed we heard voices in-shore, which we soon knew to be those of some Esquimaux coming off to us. Shortly after, several canoes made their appearance, and seventeen of these people came alongside the Fury. Having hauled their *kayaks* (canoes) upon the floe, they began to barter their commodities, consisting of seal and whale blubber, whalebone, spears, lines, and the skins of the seal, bear, fox, deer, and dog. Our first endeavour was to procure as much oil as possible, of which, as we had been informed by the Hudson's Bay ships, several tons are thus almost annually obtained from these people. We soon found that they had been well accustomed to bargain-making, for it was with some difficulty that we could prevail on them to sell the oil for anything of reasonable value. They frequently gave us to understand that they wanted saws and harpoons in exchange for it, and as these were articles which we could not spare, it was not without trouble that we obtained, in the course of the evening, two barrels of blubber in exchange for

several knives, large nails, and pieces of iron hoop which was certainly a dear bargain on our side. If they saw more than one of these at a time, they would try hard to get the whole for the commodity they were offering, though, when we had for some time persisted in refusing, they would not only accept what was offered, but jump for joy at having obtained it. They always licked the articles given them, and in one instance only did we notice any inclination to break the contract after this process had been gone through.

Shortly after these men had arrived, a large *oomiak*, or woman's boat, made its appearance, containing six or seven females and four men, the oldest of the latter, as is usual among them, steering the boat with a rude oar of wood. The women could not be induced to land upon the floe, but held up skins and small narrow strips of well-tanned leather to exchange, loudly vociferating *pilletay* (give me) the whole time. There were in this boat several skins of oil and blubber, which I tried hard to purchase, but nothing could induce the old man to part with more than one skin of it; for what reason I could not tell, except that he hoped, by perseverance, to obtain a higher price. On my desiring our men to hand out a second skin of oil, as an equivalent for which I put into the old man's hand a second knife, he resisted most vehemently, pushing our men aside in the boat with a violence I have never seen the Esquimaux use on any other occasion. One of the younger men then came forward, and was lifting up the stretcher of their boat to strike our people, who were good-humouredly laughing at the old man's violence, when I

thought it high time to interpose, and, raising a boat-hook over the head of the Esquimaux, as if about to strike them, soon brought them into a cooler mood; after which, to prevent farther altercation, I ordered our people out of the boat. We had by this time succeeded in purchasing all the oil brought by the first canoes; and as the old fellow, who was commanding officer of the *oomiak*, obstinately persisted in his refusal to sell his, I ordered him away, when he immediately rowed to the *Hecla*, and, as I was afterward informed by Captain Lyon, sold his oil for less than he might have obtained at first. Four other *oomiaks* afterward came from the shore, from which we were distant five or six miles. Each of these contained from fourteen to twenty-six persons, the majority being females and young children. Upon the whole, not less than one hundred of the natives visited the ships in the course of the evening.

These people possessed in an eminent degree the disposition to steal all they could lay their hands on, which has almost universally been imputed to every tribe of Esquimaux hitherto visited by Europeans. They tried more than once the art of picking our pockets, and were as bold and unembarrassed as ever immediately after detection. It is impossible to describe the horribly disgusting manner in which they sat down, as soon as they felt hungry, to eat their raw blubber, and to suck the oil remaining on the skins we had just emptied, the very smell of which, as well as the appearance, was to us almost insufferable. The disgust which our seaman could not help expressing at this sight seemed to create in the Esquimaux the most

malicious amusement; and when our people turned away, literally unable to bear the sight without being sick, they would, as a good joke among themselves, run after them, holding out a piece of blubber or raw seal's flesh, dripping with oil and filth, as if inviting them to partake of it. Both the men and women were guilty of still more disgusting indecencies, which seemed to afford them amazing diversion. A worse trait even than all these was displayed by two women alongside the Hecla, who, in a manner too unequivocal to be misunderstood, offered to barter their children for some article of trifling value, beginning very deliberately to strip them of their clothes, which they did not choose to consider as included in the intended bargain.

Upon the whole, it was impossible for us not to receive a very unfavourable impression of the general behaviour and moral character of the natives of this part of Hudson's Strait, who seem to have acquired, by an annual intercourse with our ships for nearly a hundred years, many of the vices which unhappily attend a first intercourse with the civilized world, without having imbibed any of the virtues or refinements which adorn and render it happy.

Early on the morning of the 22d a number of canoes repeated their visit to us, the Esquimaux having hauled them upon a piece of ice to lodge for the night. In the forenoon an *oomiak* also came from the shore, and as no intercourse with them was permitted till after divine service, they became very impatient to barter their commodities, and walked on the ice alongside the ships, with a number of trifling things in their hands, vociferating

“pilletay” to such a degree that we could hardly near ourselves speak. Some more oil was obtained in exchange for pieces of iron hoop, and, at a quarter before noon, the wind coming more to the southward, and the ice being somewhat less close than before, we cast off and made sail up the strait.

The wind and ice combined to favour us more and more as we proceeded, the former both in strength and direction, and the latter by opening into loose streams, so that, for the first time since we entered Hudson’s Strait, we were now enabled to set all the studding-sails, with some prospect of deriving advantage from them. The Hudson’s Bay ships remained at anchor some time after we made sail, and in the course of the evening we finally lost sight of them. From this circumstance, as well as from the unimpeded progress we had just begun to make to the westward, it was now only that we considered our voyage as having fairly commenced.

We continued, on the first of August, to beat to the westward, between Nottingham Island and the North Shore, the distance between which is about four leagues, and the latter fringed with numerous islands. In the course of the morning, several canoes and one *oomiak* came off from the mainland, containing about twenty persons, more than half of whom were women and children. They brought a little oil, some skin dresses, and tusks of the walrus, which they were willing to exchange for any trifle we chose to give them. They had also a number of toys of various kinds, such as canoes with their paddles, spears, and bows and arrows, all

on a very large scale. Many of the jackets of these people, and particularly those of the females, were lined with the skins of birds, having the feathers inside; and they had also in the boat several other skins in a prepared state, taken from the throat of the *colymbus glacialis*, which splendid bird, though we had twice found its skin in possession of the Esquimaux, we had yet not met with ourselves.

The expedition being now about to enter upon ground not hitherto explored, it became necessary for me to decide upon the route it would be most advantageous to pursue for the accomplishment of the principal objects pointed out in my instructions

CHAPTER II.

Review of the Geographical Information obtained by the Researches of former Navigators on the Coast of the American Continent, in the Neighbourhood of Wager River.—Discover and enter the Duke of York's Bay, supposing it to be a Passage into the Sea called the Welcome.—Leave the Duke of York's Bay, and proceed to the Northwestward.—Passage of the Frozen Strait and Arrival in Repulse Bay.—Continuity of Land there.—Observations on Shore.—Remarks concerning the Geography, Tides, and Natural History of this part of the Continental Coast.

AFTER the most anxious consideration, I came to the resolution of attempting the direct passage of the Frozen Strait; though, I confess, not without some apprehension of the risk I was incurring, and of the serious loss of time which, in case of failure

either from the non-existence of the strait or from the insuperable obstacles which its name implies, would thus be inevitably occasioned to the expedition.

The accounts given by Captain Middleton of the latitude of the western entrance of the Frozen Strait are so confused, and even contradictory, that the present appearance of the land perplexed me extremely in deciding whether or not we had arrived at the opposite end of the opening to which he had given that name. That immediately before us to the westward, though it agreed in latitude within five or six miles with the southernmost parallel he has assigned to it, appeared much too narrow to answer his description of the passage we were in search of. Upon the whole, however, I thought it most probable that this was the strait in question; and as, at all events, the opening between Southampton Island and the land to the northward of it, in whatever latitude it might be found, and whether wide or narrow, was the passage through which it was our present object to penetrate into Repulse Bay, I decided on using our utmost exertions to push through the narrow strait now before us.

On the morning of the 13th we observed something very like smoke rising from about Cape Welsford, which, being confined to one spot, was thought likely to be occasioned by the fires of natives. Nothing could exceed the fineness of the weather about this time; the climate was, indeed, altogether so different from that to which we had before been accustomed in the icy seas, as to be a matter of constant remark. The days were temperate and clear, and the nights not cold, though a very thin

plate of ice was usually formed upon the surface of the sea in sheltered places, and in the pools of water upon the floes. After sunset we descried land, appearing very distant, through the middle of the strait, which we considered to be that on the American side of the Welcome. At this time, also, we observed some ice in the centre of the strait heavier than that which covered the rest of the sea, and apparently aground in shoal water, as afterward proved to be the case.

On the 15th we were within a league of a remarkable headland on Southampton Island, which I named CAPE BYLOT, as being probably the westernmost land seen by that navigator in 1615. In the mean time, the Hecla, still continuing very closely beset, had, in spite of every exertion, drifted back with the ice several miles to the northward and eastward, so that in the course of the evening we lost sight of her altogether. This latter circumstance was, however, owing in great measure to the extraordinary refraction upon the horizon, making terrestrial objects at the distance of six or seven miles appear flattened down or depressed, as well as otherwise much deformed.

At six P.M., having beat up within five or six miles of the entrance of the strait, and being anxious to sound the channel, which appeared narrow, but without any ice in it to offer us obstruction, I left the ship in the gig, accompanied by Mr. Ross, for this purpose.

The part of Southampton Island on which we landed is about a thousand feet high, and composed of gneiss. Every here and there along the shore, between the projecting points of rocks, is a small

cove or bay, having a beach composed of small pieces of limestone, which make the water almost as white as milk. Landing in one of these coves, we carried the boat above high-water mark; and making a tent of her sail, lay very comfortably during the night. When the boat first touched the beach, we observed an innumerable quantity of the little fish called sillocks swimming about, several of which were killed by the boat-hooks or taken in the hand. A great number of white whales, seals, and narwhals were also playing about near the beach during the night. The white whales were the most numerous; the noise these animals made resembled a hoarse, low-toned barking more than any other to which I can compare it; and we remarked that their colour was whiter than any we had before seen.

As soon as it was daylight Mr. Ross and myself ascended the hill above our sleeping-place, from whence we could perceive land stretching round to the westward and northward, so as apparently to leave no opening in that quarter. We were much surprised at the low and yellowish appearance of this land, both of which circumstances we were at a loss to reconcile with Captain Middleton's description of the bold shore of the American Continent, on the western side of the Welcome, about this latitude. It was pleasing, however, to observe a large expanse of sea, wholly unencumbered with ice, in the direction we were now about to pursue; and we therefore hastened to the beach to continue the survey of the strait, that no time might be lost in taking advantage of this favourable circumstance.

After completing our observations and examina-

tion of the channel, we reached the ship by eight A.M., the Fury having, with great attention, been kept close off the entrance of the strait during the night. The Hecla had at this time just hove in sight, under a press of sail, to the eastward, having at length, with much difficulty, succeeded in getting into clear water.

At half past nine on the 17th we got under way, and stood under all sail to the N.N.E., where alone, as on the preceding evening, there appeared the smallest chance of finding any outlet.

Having determined the continuity of land all round this magnificent bay, possessing so many advantages that would render it invaluable in a more temperate climate, the officers honoured it with the name of the DUKE OF YORK'S BAY, in consequence of the expedition having first entered it on the birthday of his royal highness.

It being now evident that the inlet into which, in the course of our endeavours to penetrate to the westward, we had unavoidably been led, would afford us no passage in that direction, I gave orders for weighing at the turn of tide, being determined at once to run back through the narrow channel by which we had entered, and to push to the northward without delay, in search of some more favourable opening.

Our uncertainty respecting the true situation of the Frozen Strait, together with the want of observations during the day, left us, at this time, in doubt whether we had already penetrated through that passage, or had still to encounter the difficulties which the former accounts of it had led us to anticipate.

We stood up the bay towards daylight, and at

seven A.M. I left the *Fury*, accompanied by a large party of officers, having by signal requested Captain Lyon to join us. We landed upon a point just to the eastward of this bight, in which neighbourhood are several little islands and coves, probably affording good anchorage, but which the more immediate objects we had in view did not permit us to examine. Upon the point we found the remains of no less than sixty Esquimaux habitations, consisting of stones laid one over the other in very regular circles, eight or nine feet in diameter, besides nearly a hundred other rude, though certainly artificial structures, some of which had been fireplaces, others storehouses, and the rest tolerably-built walls four or five feet high, placed two and two, and generally eight or nine feet apart, which these people use for their canoes, as well as to keep the dogs from gnawing them. A great many circles of stones were also seen more inland. About three miles to the N.N.W. of our landing-place, our people reported having seen fifteen others of the same kind, and what they took to be a burying-ground, consisting of nine or ten heaps of large stones, of three feet in diameter, and as many in height. Under these were found a variety of little implements, such as arrow or spear heads tipped with stone or iron, arrows, small models of canoes and paddles, some rough pieces of bone and wood, and one or two strips of asbestos, which, as Crantz informs us, is used by the natives of Greenland for the wick of their lamps, and for applying hot, in certain diseases, to the afflicted part.* Un-

* Crantz, i., 236. The Esquimaux on this part of the coast use it only as sticks for trimming their lamps.

der these articles were found smaller stones, placed as a pavement, six or seven feet in length, which, in the part not concealed by the larger stones, was covered with earth. Our men had not the curiosity or inclination to dig any deeper, but a human scull was found near the spot. Our people also reported that, several miles inland of this, they observed stones set up as marks, many of which we also met with in the neighbourhood of the point. Of these marks, which occur so abundantly in every part of the American coast that we visited, we could not then conjecture the probable use, but we afterward learned that the Esquimaux set them up to guide them in travelling from place to place, when a covering of snow renders it difficult to distinguish one spot from another. We found among the stones some seals' bones, with the flesh still upon them, which seemed to indicate that the natives had occupied this station during a part of the same season; and judging from the number of circles collected in this place, and still more from our subsequent knowledge of these people, it is probable that not less than one hundred and twenty persons had taken up their residence here at the same time.

The latitude observed on shore was $66^{\circ} 30' 58''$, being the first observation we had yet obtained so near the Arctic Circle, but far to the southward of that given by Captain Middleton.* The longitude,

* The difference amounts to about twenty miles. It is but justice, however, to the memory of Captain Middleton to add, that several miles of this error may have been occasioned by the imperfection of nautical instruments in his day, combined with the unavoidable inaccuracy of observations made by the horizon of the sea when encumbered with much ice. On this latter account, as well as from the extraordinary terrestrial refraction, no observation can be here depended upon, unless made with an artificial horizon.

by chronometers, was $86^{\circ} 30' 20''$; the dip of the magnetic needle, $88^{\circ} 07' 28''$; and the variation, $48^{\circ} 32' 57''$ westerly; being only a degree and a half less than that observed by Middleton in 1742.

CHAPTER III.

Return to the Eastward through the Frozen Strait.—Discovery of Hurd Channel.—Examined in a Boat.—Loss of the Fury's Anchor.—Providential Escape of the Fury from Shipwreck.—Anchor in Duckett Cove.—Farther Examination of the Coast by Boats and Walking-parties.—Ships proceed through Hurd Channel.—Are drifted by the Ice back to Southampton Island.—Unobstructed run to the entrance of a large Inlet leading to the Northwestward.—Ships made fast by Hawsers to the Rocks.—Farther Examination of the Inlet commenced in the Boats.

HAVING now satisfactorily determined the non-existence of a passage to the westward through Repulse Bay, to which point I was particularly directed in my instructions, it now remained for me, in compliance with my orders, to "keep along the line of this coast to the northward, always examining every bend or inlet which might appear likely to afford a practicable passage to the westward." It was here, indeed, that our voyage, as regarded its main object, may be said to have commenced, and we could not but congratulate ourselves on having reached this point so early, and especially at having passed, almost without impediment, the strait to which, on nearly the same day* seventy-nine years before, so forbidding a name had been applied.

* Middleton discovered the Frozen Strait on the 20th August 1742, according to the New Style.

All sail was made at daylight on the 23d along the northern shore of the Frozen Strait, which here continues about the same height as that of Repulse Bay, and was at this time quite free from snow. At nine A.M. the weather became squally with thick snow, which rendered great caution necessary in running. There was something in the appearance of this part of the coast which held out so favourable a prospect of a direct passage to the northward, that I determined more closely to examine it. Having beat up to the mouth of an opening which, the nearer we approached, assumed a more and more favourable appearance, we found that a body of ice occupied the greater part of the channel, rendering it impracticable then to enter it either with the ships or the boats. The only mode left, therefore, of examining it without loss of time, was to despatch a party equipped for travelling by land, to ascertain enough of its extent and communications to enable me to decide as to our farther progress. As, however, in their present situation, I did not feel myself justified in leaving the ships, I requested Captain Lyon to undertake this service. He was accompanied by Mr. Bushnan and two seamen from each ship, and was furnished with a tent, blankets, and four days' provisions.

Captain Lyon, on his return, at the end of two days, reported that he had landed on an island, which he called BUSHNAN'S ISLAND, had then crossed a strait, to which afterward the name of HURD'S CHANNEL was given, and landed on a steep point called by him CAPE MONTAGU. From hence his party proceeded to a high and remarkable hill called BROOKS'S BLUFF: following the strait to the

northward, they passed the remains of many Esquimaux habitations ; and, though their short journey had been unsatisfactory on account of the badness of the weather, there was still sufficient to cause the most lively interest, and give strong hopes of the existence of some passage to the northeast of the small inlet they had examined.

At eight P.M., having shoaled the water from sixty to forty, and then to thirty-two fathoms, and the weather still continuing extremely thick, I suspected that the tide was taking us too close to Passage Island, which was the nearest land when the fog came on. A large space of open water was at this time not more than a quarter of a mile distant from us in the opposite direction ; but, before the ships could be moved by warps or any other means within our power, the tide was observed to be setting her directly between the island and the little yellow-looking rock I have before mentioned as lying on its eastern side. The anchors were kept ready to drop in an instant should the ship drive into shoal water ; had we grounded, and the heavy masses of ice continued to drive upon us, little less than the total destruction of the ship was to be apprehended. The natural direction of the stream, however, effected for us that which, hampered as we were, our own exertions must have failed in accomplishing ; the ship drove through, at the distance of one hundred yards from the rock and about one hundred and forty from Passage Island, having no less than twelve fathoms ; and soon after deepened the water to thirty-five and forty, and then to no bottom with ninety.

After this providential escape we lay to within

the island, in order to drift to the northward and westward of it with the flood tide, which runs stronger here than in any other part of the Frozen Strait. The night was fine but extremely dark, so that after ten o'clock we could not distinguish where the land lay, and the compasses could not be depended on. After an ineffectual attempt to push through the ice towards the middle of the Strait, in order to avoid the danger of being entangled among the numerous islands lying off this shore, we were literally obliged to let the ship take her chance, keeping the lead going and the anchors in readiness.

The Hecla having got clear of the ice the preceding evening, and narrowly escaped an adventure similar to that which we had experienced, rejoined us early in the morning, when Captain Lyon returned to her to prepare a boat for his intended excursion. We then stood in under all sail for the land, and at eleven A.M. Captain Lyon left the Hecla, while the ships tacked off and on to await his return. At nine P.M. Captain Lyon returned, acquainting me that he had met with a small bay having no stream of tide, and being at present clear of ice, he thought it might answer our purpose, but he wished me to see it before the ships were taken in.

A boat from each ship being prepared, Captain Lyon and myself left the cove at three P.M. to proceed on the proposed examination. We separated at Point Cheyne, Captain Lyon having pointed out to me the broad eastern channel from which the tide appeared to come, and which it was my intention to examine, while he directed his atten

tion to the smaller passage he had described as leading to the northward. It was agreed that we should return to the ships with as little delay as was consistent with the object we had in view, namely, to ascertain through which of the two channels it was expedient or practicable to bring the ships.

The breeze moderated soon after our landing, and a fine clear night succeeded. At four in the morning Mr. Ross and myself ascended the nearest hill, in the hope of being able to satisfy ourselves respecting the existence of a passage for the ships in at least one direction. I therefore directed the tents to be struck, and everything to be in readiness for moving on our return. On reaching the summit of the first hill, however, we found, as is not unfrequently the case, that our view was but little improved, and that no prospect could be obtained to the northward without ascending the higher hill seen the preceding evening, which we now found still several miles beyond us. While preparing for this, I felt so much indisposed, that, being apprehensive of laying myself up at a time when I could least afford to do so, I determined to intrust the proposed service to Mr. Ross, in whose zeal and ability to accomplish it I felt the utmost confidence. Mr. Ross and his party accordingly set out for the hill at six A.M. On his return in the evening Mr. Ross reported that, having reached a commanding hill, he found himself overlooking a sea of considerable extent to the eastward, and washing the foot of the hill on which he stood. This sea appeared to have some islands scattered about it, and was much encumbered with ice. To the southeast.

ward there seemed to be several openings between islands, of which the land we stood then upon appeared to form one, the sea sweeping round to the northward and westward, as if to join the strait discovered by Captain Lyon. Mr. Ross described the country over which he passed as much intersected by lakes, some of them not less than two or three miles in length, and having in their neighbourhood abundance of grass, moss, and other fine feeding for the deer. The report of Mr. Ross, accompanied by an eye-sketch made upon the spot, left no doubt of the existence of an outlet to the eastward, and enabled me to decide without hesitation upon attempting the passage of the narrows with the ships, leaving our subsequent route to be determined on according to the report of Captain Lyon.

Piles of stones and the remains of Esquimaux habitations were everywhere to be seen, and Mr. Ross met with their marks even on the highest hills; but none appeared of recent date. The reindeer were here very numerous. Mr. Ross saw above fifty of them in the course of his walk, and several others were met with near the tents. A large one was shot by one of the men, who struck the animal, as he lay on the ground, a blow on the head with the butt end of his piece, and, leaving him for dead, ran towards the tents for a knife to bleed and skin him; when the deer very composedly got on his legs, swam across a lake, and finally escaped. A small fawn was the only one killed. Three black whales and a few seals were playing about near the beach.

Our people being somewhat fatigued with walk

ing, were allowed to rest till half past one in the morning of the 29th, when, it being high water, the tents were struck and the boat loaded. I found that Captain Lyon had returned on board the preceding evening, having accomplished his object in a shorter time than was expected.

That no time might be lost in running the ships through the narrows, I directed three boats from each to be prepared, for the purpose of sounding every part of this intricate, and, as yet, unknown passage, which I named after Captain THOMAS HURD, of the royal navy, hydrographer to the admiralty. Giving to the officer commanding each boat a certain portion to accomplish, I reserved for my own examination the narrowest part of the channel; and at thirty minutes past one P.M., as soon as the flood tide began to slacken, we left the ships and continued our work till late at night, when, having received the reports of the officers, and made out a plan of the channel for each ship, I directed everything to be in readiness for weighing at the last quarter of the ebb on the following morning. Much as I lamented this delay, at a period of the season when every moment was precious, it will not appear to have been unnecessary, when it is considered that the channel through which the ships were to be carried did not in some places exceed a mile in breadth, with half of that space encumbered with heavy masses of ice, and with an *ebb* tide of six knots running through it.

At fifteen minutes past three P.M. on the 30th, a light air of wind springing up from the eastward, we weighed, and, having warped out by kedges till we had cleared the shoal-point of the cove, made

sail for the channel, and, with the assistance of the boats, got the *Fury* into the fair set of the tide before it made very strong to the eastward. At a quarter before seven, when in the narrowest part, which is abreast of a bold headland on the south shore, where the tide was now driving the ice along at the rate of five or six knots, the wind came in a sudden gust from the southwest, scarcely allowing us to reduce and trim our sails in time to keep the ship off the north shore, which is not so safe as the other. By carrying a heavy press of canvass, however, we succeeded in forcing through the ice, but the *Fury* was twice turned completely round by eddies, and her sails brought aback against the helm; in consequence of which she gathered such fresh sternway against several heavy floe-pieces, that I apprehended some serious injury to the stern-post and rudder, if not to the whole frame of the ship. The *Hecla* got through the narrows soon after us; but Captain Lyon, wishing to bring away the flags and staves set up as marks, had sent his little boat away for that purpose during the continuance of the calm weather. When the breeze suddenly came on she was still absent, and, being obliged to wait for some time to pick her up, the *Hecla* was about dusk separated several miles from us.

I was sorry to perceive, on the morning of the 1st of September, that the appearance of the ice was by no means favourable to our object of sailing to the northward, along the Sturges Bourne Islands; but at ten A.M., the edge being rather more slack, we made all sail, with a very light air of southerly wind, and the weather clear, warm, and pleasant.

We were at noon in lat. $66^{\circ} 03' 35''$, and in long. $83^{\circ} 33' 15''$, in which situation a great deal of land was in sight to the northward, though apparently much broken in some places. From N.E. round to S.S.E. there was still nothing to be seen but one wide sea uninterruptedly covered with ice as far as the eye could reach.

At forty-five minutes past one P.M. we had come to the end of the clear water, and prepared to shorten sail, to await some alteration in our favour. At this time the weather was so warm that we had just exposed a thermometer to the sun to ascertain the temperature of its rays, which could not have been less than 70° or 80° , when a thick fog, which had for some hours been curling over the hills of Vansittart Island, suddenly came on, creating so immediate and extreme a change, that I do not remember to have ever experienced a more chilling sensation. As we could no longer see a hundred yards around us in any direction, nothing was to be done but to make the ships fast to the largest piece of ice we could find, which we accordingly did at two P.M., in one hundred and fifty-eight fathoms. Just before dark the fog cleared away for a few minutes, when, perceiving that the wind, which was now increasing, was likely to drift us too near the islands, we took advantage of the clear interval to run a mile farther from the land for the night, where we again made fast to a large floe-piece in two hundred fathoms.

The wind, drawing round to the northward and westward, on the morning of the 2d, increased to a fresh gale, which continued to blow during the night, notwithstanding which, I was in hopes that

the immense size of the floe to which the ships were attached would enable us to retain our station tolerably. It was mortifying, therefore, to find, on the morning of the 2d, that we had drifted more than I remember ever to have done before in the same time under any circumstances. It was remarkable, also, that we had not been set exactly to leeward, but past Baffin Island towards two remarkable hills on Southampton Island, from which we were at noon not more than seven or eight leagues distant. Thus, after a laborious investigation which occupied one month, we had, by a concurrence of unavoidable circumstances, returned to nearly the same spot on which we had been on the 6th of August. To consider what might have been effected in this interval, which included the very best part of the navigable season, had we been previously aware of the position and extent of the American Continent about this meridian, is in itself certainly unavailing; but it may serve to show the value of even the smallest geographical information in seas where not an hour must be thrown away or unprofitably employed.

In the afternoon an attempt was made to move, for the mere sake, it must be confessed, of moving and keeping the people on the alert, rather than with the slightest prospect of gaining any ground; but, by the time that we had laid out the hawsers, the small hole of water that had appeared again closed, and we were obliged to remain as before.

At four A.M. on the 5th, we cast off and made sail for the land, with a fresh breeze from the south-east. The ice was closely packed against the land near the passage I had intended to try, and as it ap-

peared slack to the eastward, I determined to run between the southeast point of Baffin Island and the smaller islands lying off it. The wind drawing more to the eastward as we approached the channel, we had several tacks to make in getting through, but carried a good depth of water on each side, though its breadth does not exceed three quarters of a mile. As we now advanced to the northward, we found less and less obstruction, the main body of the ice having been carried to the southward and eastward by the late gale, which had in so extraordinary a manner drifted us in the same direction. This was one of the opportunities I have before described as the most favourable that ever occur for making progress in these seas. We had, therefore, a fine run during the day along the east side of Sturges Bourne Islands; for, having found the passages between them still choked with ice, we were obliged to run to the northward with the hope of attaining our present object, till it was time to look out for an anchorage. Having first sent the boats to sound, we hauled into a small bay, where we anchored at dusk in seventeen fathoms, good holding-ground, though the bottom was so irregular that we had from five to thirteen close upon our quarter.

We had now once more approached a part of the coast, of which the thorough and satisfactory examination could not possibly be carried on in the ships, without incurring constant and, perhaps, useless risk, and a certain and serious loss of time. I determined, therefore, to proceed at once upon this service in two boats, one from each ship. Having communicated my intentions to Captain

Lyon, and requested him to move the ships, when practicable, into some more secure situation, I left the *Fury*, accompanied by Mr. Ross and Mr. Sheerer, taking with us our tents, blankets, and stove, together with four days' provisions and fuel.

CHAPTER IV.

Hoppner's Inlet entered and surveyed by the Boats.—Continuity of Land there determined.—Proceed to examine another Opening leading to the Westward.—Favourable Appearance of a continued Passage in that direction.—Meet with some Esquimaux.—Arrival in Ross Bay, being the termination of Lyon Inlet.—Discovery and Examination of various Creeks.—Return to the Ships, after finding the Land entirely continuous.—Some Account of the Natural History of this part of the Coast.

A THICK fog unfortunately coming on just before we left the ships, prevented us from making choice of any part of the land which might be the most likely to afford a passage to the northward and westward. We could only, therefore, direct our course northerly, with tolerable certainty, by a compass-bearing previously taken on board, and by occasionally obtaining an indistinct glimpse of the land through the fog. Having rowed four miles, we came to a high point, round which we turned rather to the westward, and then landed a little beyond it.

The tents were struck at thirty minutes past three A.M. on the 7th and our course directed up the

inlet, the weather being calm and tolerably clear. At three miles and a quarter we passed on our star-board hand a point of land, which, from the bright colour of the rocks, composed chiefly of feldspar, obtained the name of *Red Point*.

Opposite to Red Point was a small opening, which we next proposed to examine. We had not, however, advanced a mile within the entrance when the boats grounded, the water becoming more and more shoal within. As it was plain that no passage could here be found for the ships, which alone it was my present object to discover, I did not choose to wait for the flowing of the tide to enable us farther to explore this place, but determined to prosecute our examination of the other parts of the coast without delay. There were here a great number of stones placed in an upright position in every conspicuous spot, many of them looking like men at a distance. These marks are generally placed without regard to regularity, but there were here several lines of them about fifty yards in length, the stones being four or five yards apart, and each having a smaller one placed on its top. Having rowed out of the inlet, we landed at six P.M. in a little bay just outside of the last night's sleeping-place, pitching the tents on a fine shingly beach, which was the kind of ground we usually looked out for towards the conclusion of the day, as affording the softest bed, consistently with dryness, that nature supplies in this country. Of such a convenience the men were not sorry to avail themselves, having rowed above thirty miles since the morning.

The boats were launched at daylight on the 8th, and we soon came to a much more promising open-

ing on the same shore, about a mile wide at the entrance, and leading directly to the westward. After rowing four miles in that direction, we arrived at the mouth of a bay from three to five miles wide, out of which there did not appear the least chance of discovering an outlet. As nothing, however, but rowing round the bay would satisfactorily determine this, we were proceeding to do so, when we observed in the northern corner something like a low point overlapping the high land at the back. Towards this spot we steered, as the readiest way of completing the circuit of the bay, and half a mile short of it landed to breakfast.

In the mean time I sent Mr. Ross to one hill, and ascended another myself, expecting to save the time and trouble of rowing into the nook. I was not a little astonished to find, from my own and Mr. Ross's observations, that there was on the other side of the point a broad and apparently navigable channel, through which the tide was setting to the northward, at the rate of three or four miles an hour. I am thus minute in the discovery of this channel, which afterward promised to be of no small importance, to show how nearly such a place may be approached without the slightest suspicion being entertained of its existence, and the consequent necessity of *close* examination wherever a passage is to be sought for.

We continued our examination, and I despatched Mr. Sherer to the ships for a fresh supply of provisions. On his return on the 10th we proceeded to the westward. In running along the coast with a fresh and favourable breeze, we observed three persons standing on a hill, and, as we continued our

course, they followed us at full speed along the rocks. Having sailed into a small sheltered bay, I went up, accompanied by Mr. Bushnan, to meet them on the hills above us. In sailing along the shore we had heard them call out loudly to us, and observed them frequently lift something which they held in their hands; but, on coming up to them, they remained so perfectly mute and motionless, that, accustomed as we had been to the noisy importunities of their more sophisticated brethren, we could scarcely believe them to be Esquimaux. There was, besides, a degree of lankness in the faces of the two men, the very reverse of the plump, round, oily cheeks of those we had before seen. Their countenances at the time impressed me with the idea of Indian rather than of Esquimaux features; but this variety of physiognomy we afterward found not to be uncommon among these people. The men appeared about forty and twenty-two years of age, and were accompanied by a good-looking and good-humoured boy of nine or ten. They each held in their hand a sealskin case or quiver, containing a bow and three or four arrows, with a set of which they willingly parted, on being presented with a knife in exchange. The first looks with which they received us betrayed a mixture of stupidity and apprehension, but both wore off in a few minutes on our making them understand that we wished to go to their habitations. With this request they complied without hesitation, tripping along before us for above two miles over very rough ground, and crossing one or two considerable streams running from a lake into the sea. This they performed with so much quickness that we could with difficulty keep

up with them, though they good-naturedly stopped now and then till we overtook them. We were met on our way by two women, from twenty to twenty-five years of age, having each a child at her back ; they too accompanied us to their tent, which was situated on a high part of the coast overlooking the sea. It consisted of a rude circular wall of loose stones, from six to eight feet in diameter and three in height, in the centre of which stood an upright pole, made of several pieces of fir-wood lashed together by thongs, and serving as a support to the deerskins that formed the top covering. Soon after our arrival we were joined by a good-looking, modest girl of about eight, and a boy five years old. Of these nine persons, which were all we now saw, only the elder man and two of the children belonged to this tent, the habitations of the others being a little more inland. The faces of the women were round, plump, tattoed, and, in short, completely Esquimaux. The *kayak* or canoe belonging to this establishment was carefully laid on the rocks close to the seaside, with the paddle and the man's mittens in readiness beside it. The timbers were entirely of wood, and covered, as usual, with sealskin. Its length was nineteen feet seven inches, and its extreme breadth two feet ; it was raised a little at each end, and the rim or gunwale of the circular hole in the middle was high, and made of whalebone. A handsome sealskin was smoothly laid within as a seat, and the whole was sewn and put together with great neatness. The paddle was double, made of fir, and the ends of the blades tipped with bone, to prevent splitting.

The fireplace in the tent consisted of three rough

stones carelessly placed on end against one side, and they had several pots of *lapis ollaris* for culinary purposes. These people seemed to us altogether more cleanly than any Esquimaux we had before seen, both in their persons and in the interior of their tent, in neither of which could we discover much of that rancid and pungent smell which is in general so offensive to Europeans. One instance of their cleanliness which now occurred, deserves, perhaps, to be noticed, both because this is justly considered rather a rare quality among Esquimaux, as well as to show in what way they do sometimes exercise it. When leaving the tent to return to our boats, I desired one of the seamen to tie the articles we had purchased into a single bundle, for the convenience of carrying them; but the elder of the two male Esquimaux, who watched the man thus employed, would not permit it to be done without excluding a pot, which, as he explained by wiping the lampblack off with one of his fingers, would soil a clean sealskin jacket that formed part of the bundle.

Among the few domestic utensils we saw in the tent was the woman's knife of the Greenlanders described by Crantz, and resembling, in its semi-circular shape, that used by shoemakers in England. The most interesting article, however, was a kind of bowl, exactly similar to that obtained by Captain Lyon from the natives of Hudson's Strait, being hollowed out of the root of the musk-ox's horn. As soon as I took the cup in my hand, the boy who was our first companion, and had since been our constant attendant, pronounced the word *ooming-muk*, thus affording an additional confirmation to

that obtained on the former voyage, of the musk-ox being the animal described by the natives of the west coast of Greenland as having occasionally, though rarely, been seen in that country.

As soon as the Esquimaux became a little more familiar with us, they repeatedly asked for *sowik* (iron), in answer to which we gave them to understand that they must accompany us to our boats if they wished to obtain any of this precious article. Accordingly, the whole group set off with us on our return, the males keeping up with us, and the women a short distance behind. The whole of the children carried bundles of the branches of ground willow, which we had just before seen them bring in for their own use, and which they seemed to consider an article of barter that might be acceptable to us. As we returned I noticed a quantity of the *ledum palustre*, and, having plucked some of it, gave it to the boy to carry; after which, though he very much disliked its smell, he gathered every root of it that we came to, and deposited it at our tents. This lad was uncommonly quick and clever in comprehending our meaning, and seemed to possess a degree of good-humour and docility which, on our short acquaintance, made him a great favourite among us.

We had hitherto been much pleased with our new acquaintance, who were certainly a good-humoured, decent sort of people. We therefore loaded them with presents, and endeavoured to amuse them by showing them the manner of rowing our boats, which were hauled up on the beach. While the men and children were occupied in observing this, the women were no less busily employed, near

the tents, in pilfering and conveying into their boots some of our cups, spoons, and other small articles, such as they could conveniently secrete. This they accomplished with so much dexterity, that no suspicion would have been excited of their dishonesty had not Mr. Sherer fortunately missed a cup which was required for supper. A general search being instituted in consequence, and the cargo of the women's boots brought back to our tents, I directed all our presents to be likewise taken from the two offenders; and, dismissing the whole party with great appearance of indignation, thus put an end, for the present, to our communication with these people.

We spent the two next days in exploring a creek which we called CULGRUFF, and another on the opposite or eastern shore, which received the name of NORMAN'S CREEK, and returned to the Hecla on the evening of the 14th.

I learned from Captain Lyon that the Hecla had just anchored at her present station, the Fury still remaining at the former place, into which the ice had lately come so thick as to require the assistance of all hands from both ships to warp and tow the Hecla out. Proceeding with a fresh boat's crew towards the Fury, which we found close beset by thick and heavy ice, we succeeded, after much difficulty, in hauling the boat through it, and arrived on board at ten P.M.

As soon as the tide would serve in the offing on the morning of the 15th, we weighed. and, by means of warping and towing, in which we were assisted by Captain Lyon's boats, succeeded in joining the Hecla at her anchorage at three P.M.

CHAPTER V.

Farther Examination in the Boats for the purpose of Connecting the shores of Lyon Inlet with that of Gore Bay.—Continuity of the Land determined.—Fresh Detention by the Ice.—Boats carried over Land.—Return to the Ships.—Progress out of the Inlet prevented by the Ice.—The Fury grounds upon a Rock.—Anchor in Safety Cove.—Heavy Easterly gales.—Proceed out of the Inlet.—Arrival in a Bay on the south side of Winter Island.—Ships secured in Winter-quarters.

AGAIN leaving the ships on the 15th, we rowed before sunset between six and seven miles along the high southwestern land, passing what appeared a small harbour, with an island near the middle of the entrance, and landed on a shingly beach near a small bay or creek, extending three quarters of a mile to the W.N.W., and then terminating in a deep broad valley. We left the shore at half past four A.M. on the 16th, and in an hour's sailing, with a fresh northwest wind, came to some loose ice, through which we continued to make our way till eleven o'clock, when it became so close that a passage could no longer be found in any direction. There was also so much young ice in every small interval between the loose masses, that the boats were much cut about the water-line in endeavouring to force through it. In order, therefore, to avoid the risk of being altogether driven from the shore, I determined to attempt a passage into the bay, which was three quarters of a mile distant; and in this, after two hours' labour, we at length succeeded. Finding that the ice was likely

to prove an obstacle of which we could not calculate the extent or continuance, we began at once to reduce our daily expenditure of provisions, in order to meet any contingency.

Ascending the hill at daylight on the 17th, we were much disappointed in finding that, though the ice continued to drive a little to the S.E., it was even more compact than before, the loose masses through which we had sailed the preceding day being now closely set together.

As soon as it was light enough on the 18th to make out the situation of the ice, which had now drifted considerably to the southward, we left the bay with a fresh and favourable breeze, and at a quarter past eight A.M., after a quick run through "sailing ice," landed to breakfast on the southeast point of this shore, which afterward received the name CAPE MARTINEAU. Proceeding from hence with a strong breeze and a considerable sea ahead, but the flood tide still running slowly with us to the N.W., we rowed several miles close along the shore, and entered at dusk a little cove, where the tents were pitched and the boats moored for the night.

The night being cold, clear, and nearly calm, a quantity of "bay-ice," half an inch in thickness, had, on the morning of the 19th, formed in the cove, and for some distance outside of it, which again cut the boats' planks very much, besides occasioning great loss of time in getting through it. This symptom of approaching winter, which had now for the first time occurred to us, rendered it expedient in future to select the most open beaches for our resting-places at night. After tracing

every bend of the shore which here occurred, we landed at the point called by Captain Lyon POINT FARHILL, and, ascending the hill to take angles, obtained a view of Gore Bay, easily recognising every other feature of the lands discovered by Captain Lyon. A mile or two of coast was now all that remained to be examined, in order to determine the connexion of Gore Bay with the rest of the land recently explored. Proceeding, therefore, as soon as our observations were finished, we soon after entered the bay, and in the course of an hour had satisfied ourselves on this point.

The ice remained closely packed on the 21st, as far as we could see along shore, so that we were still detained in the same place. Some snow which fell in the course of the preceding night, lightly powdering the land, had entirely disappeared before evening, except in places having a northern aspect, where it now permanently remained for the winter.

On the morning of the 22d the ice was not only as close as ever, but had forced its way much higher up towards Gore Bay. A party was therefore sent out to endeavour to procure game farther inland; and another employed in gathering ground-willow, which was here abundant and in good condition for fuel. Two bears, a female and her cub, being probably attracted by the smell of our cooking, came towards the tents upon the ice, but, upon hearing our voices, set off in the opposite direction. A good deal of snow fell in partial showers in the course of the day; it was nearly of that fine kind which usually falls during the winter of these

regions, but we had flake snow and even light rain some days after this. The snow, however, now remained undissolved upon the land in all situations. Our hunting party returned late in the evening without success, having merely seen a number of reindeer, which the want of cover prevented their approaching. Seven days out of the nine for which we were victualled having now elapsed, a party was selected for walking over to the ships on the following day, should the ice still continue in its present state.

The ice continuing in the same state, we commenced our work at break of day on the 24th, and in three journeys had carried all the lighter part of our baggage over land by eleven o'clock. All hands then returned for the two boats, across the gunwales of which the masts and oars were lashed for lifting them, the ground not allowing us to drag them except for a short space here and there. By half past one the first boat had been carried over, and, by the unwearied exertions of the officers and men, we had the satisfaction of launching the second before four o'clock, the distance being a mile and a half, and chiefly over rocky and uneven ground. As soon as we had dined, the boats were reloaded; and at five o'clock we left the shore. A quantity of ice was still aground upon the shoals and islets off Cape Martineau, through which, however, we fortunately found a passage before dark, when, having cleared every obstacle, we sailed in an open sea and with a fresh breeze to the northward. Keeping close along the shore to avoid missing the ships in the dark, our first musket was immediately answered by a blue-light; and,

being guided by the lights now shown by the ships, we arrived at nine P.M., where we found that our late detention had excited some alarm for our safety.

On the 1st of October some small rain fell, which, immediately freezing, made the decks and ropes as smooth and slippery as if coated with glass; the thermometer had for several days past permanently fallen below the freezing point, and sometimes as low as 20° at night; which change, together with the altered appearance of the land, and the rapid formation of young ice near the shores, gave pretty evident notice of the approach of winter. The commencement of this dreary season in these regions may, indeed, be fairly dated from the time when the earth no longer receives and radiates heat enough to melt the snow which falls upon it. When the land is once covered with this substance, so little calculated to favour the absorption of heat, the frigorific process seems to be carried on with increased vigour, defining very clearly the change from summer to winter, with little or no immediate interval to which the name of autumn can be distinctly assigned.

We passed Cape Edwards on the 6th; but on the 8th the formation of young ice upon the surface of the water began most decidedly to put a stop to the navigation of these seas, and warned us that the season of active operations was nearly at an end.

When to the ordinary difficulties which the navigation of the Polar Seas presents were superadded the disadvantages of a temperature at or near *zero*, its necessary concomitant the young ice, and twelve

hours of darkness daily, it was impossible any longer to entertain a doubt of the expediency of immediately placing the ships in the best security that could be found for them during the winter, rather than run the risk of being permanently detached from the land by an endeavour to regain the continent. We were in hopes of receiving effectual shelter from the numerous grounded masses, but could only find berths within one of them in five to six fathoms water. We now, for the first time, *walked* on board the ships; and, before night, had them moved into their places, by sawing a canal for two or three hundred yards through the ice. The average thickness of the new floe was already three inches and a quarter; but being in some places much less, several officers and men fell in, and, from the difficulty of getting a firm place to rest on, narrowly escaped a more serious inconvenience than a thorough wetting. The whole sheet of ice, even in those parts which easily bore a man's weight, had a waving motion under the feet, like that of leather or any other tough flexible substance set afloat, a property which is, I believe, peculiar to salt-water ice.

In reviewing the events of this our first season of navigation, and considering what progress we had made towards the accomplishment of our main object, it was impossible, however trifling that progress might appear upon the chart, not to experience considerable satisfaction. Small as our actual advance had been towards Behring's Strait, the extent of coast newly discovered and minutely explored in pursuit of our object, in the course of the last eight weeks, amounted to more than two

hundred leagues, nearly half of which belonged to the Continent of North America. This service, notwithstanding our constant exposure to the risks which intricate, shoal, and unknown channels, a sea loaded with ice, and a rapid tide concurred in presenting, had providentially been effected without injury to the ships, or suffering to the officers and men; and we had now once more met with tolerable security for the season. Above all, however, I derived the most sincere satisfaction from a conviction of having left no part of the coast from Repulse Bay eastward in a state of doubt as to its connexion with the continent. And as the mainland now in sight from the hills extended no farther to the eastward than about a N.N.E. bearing, we ventured to indulge a sanguine hope of our being very near the northeastern boundary of America, and that the early part of the next season would find us employing our best efforts in pushing along its northern shores.

CHAPTER VI.

Precautions for the Security of the Ships and their Stores—And for the Health and Comfort of the Crews.—Establishment of Theatrical Entertainments and Schools.—Erection of an Observatory and House on Shore.—State of Health at this Period.—Partial Disruption of the Ice in the Bay.—Anchors and Cables taken to the Shore.—Gradual Increase of Cold, Appearance of the Aurora Borealis on several Occasions, and various other Meteorological Phenomena to the Close of the year 1821.

OUR operations at sea being now at an end for the season, my chief attention was directed to the

security of the ships, and to the various internal arrangements which experience suggested as necessary for the preservation of cleanliness, health, and comfort during the winter, as well as for the economical expenditure of provisions, fuel, and other stores.

The situation which circumstances obliged us to put up with for our winter-quarters was by no means as secure as could have been wished. The bay, though as fine a roadstead as could have been desired if situated in a more temperate climate, was still only a roadstead; and, being entirely open to the south, was exposed to a pressure from the ice in that direction, unless the solid floe now about to be formed round the ships should shortly become sufficient to guard them from external injury. There was some reason, however, to doubt the efficacy of this protection; for, as the spring-tides approached, the numerous grounded masses around the shores of the bay began to evince symptoms of instability, one or two having fallen over, and others turned round; so that these masses might be looked upon rather as dangerous neighbours, likely to create a premature disruption of the ice, than as the means of security, which, in seas not subject to any considerable rise of tide, they had so often proved to us on former occasions. To these circumstances was added our uncertainty whether very high tides during the winter might not crack the ice, thereby exposing the ships to the double danger of being "nipped" about their water-line, and of being drifted out of the bay by northerly gales. That which was, however, perhaps the most to be apprehended, was the possibili-

ty of the ships being forced into shoal water, without detaching themselves from the mass of ice cemented to their bends, the weight of which, hanging upon the sides of a ship left aground by the tide, could not but produce very serious injury.

About the time of our arrival in the bay, when the thermometer had fallen nearly to *zero*, the condensation of vapour upon the beams of the lower deck, and in the cabins near the hatchways, commenced just as it had done at a similar temperature before. To remedy this evil, no time was lost in lighting a fire in the warming-stove upon the orlop-deck, everything being previously moved from its neighbourhood that was likely to create danger. The iron tanks in the main hatchway were laid bare on the top, and the interstices between them filled with sand, to form a secure platform in front of the fire; and the sailroom, bulkheads, and stancheons covered with sheet copper. Four steady men, of whom one was a petty officer, were appointed to attend the fire in regular watches, being made responsible for the due expenditure of the fuel, and for the safety of everything about the stove. They had likewise particular charge of the fire-engine, buckets, and two tanks of water, all of which were kept in the hatchway in constant readiness in case of accidents. In addition to these precautions, some general regulations were established for stationing the officers and men in the event of fire; and a hole was directed to be kept open in the ice alongside each ship, to ensure at all times a sufficient supply of water. In twelve hours after lighting the stove not a drop of moisture remained.

The regulations for the maintenance of due cleanliness among the ships' companies were principally the same as those established on the preceding voyage. As a source of rational amusement to the men, soon after our arrival I proposed to Captain Lyon and the officers of both ships once more to set on foot a series of theatrical entertainments, from which so much benefit in this way had, on a former occasion, been derived. This proposal was immediately and unanimously acquiesced in; Captain Lyon obligingly undertook to be our manager, and, some preparation having been made for this purpose previous to leaving England, everything was soon arranged for performing a play on board the *Fury* once a fortnight.

To furnish rational and useful occupation to the men on the other evenings, a school was also established for the instruction of such of the men as were willing to take advantage of this opportunity of learning to read and write, or of improving in those acquirements.

While these internal arrangements were making, the interests of science were not neglected. A day or two after our arrival, Mr. Fisher and myself selected a spot for the portable observatory, which was immediately erected for the purpose of making magnetic observations; and, as soon as the carpenters could be spared from the necessary duties of the ships, a house was built for the reception of the instruments requisite in conducting the other observations and experiments.

Soon after our arrival here, Captain Lyon expressed a wish that his officers and men, with himself, should attend divine service on board the

Fury during the continuance of the ships in winter-quarters. This arrangement was accordingly made, and we formed one congregation for the rest of the winter. Our lower deck afforded abundance of accommodation in this respect; some psalm tunes, which had been purposely set upon an organ, were played at the proper intervals of the service, and our little church formed a pleasing and interesting scene to such as are disposed to be interested by scenes of this nature.

I have before mentioned the myriads of small shrimps (*cancer nugax*) which for some weeks past had been observed near the surface of the sea. These insects were found to be still as numerous as ever in any hole we made in the ice; and such was the extreme avidity with which they immediately seized upon any meat put overboard, to thaw or soak for the sake of freshness, that Captain Lyon to-day sent me a goose to look at, belonging to the officers of the Hecla, that had been thus deposited within their reach only eight and forty hours, and from which they had eaten every ounce of meat, leaving only a skeleton most delicately cleaned. Our men had before remarked that their meat suffered unusual loss of substance by soaking, but did not know to what cause to attribute the deficiency. We took advantage, however, of the hunger of these depredators to procure complete skeletons of small animals, for preservation as anatomical specimens, enclosing them in a net or bag with holes, to which the shrimps could have access, but which prevented the loss of any of the limbs, should the cartilage of the joints be eaten. For want of this latter precaution some specimens were at first rendered imperfect.

A pair of snow-boots were now issued *gratis* to each individual in the expedition, being part of a stock of extra warm clothing liberally furnished by government, to be supplied to the officers and men at my discretion, as occasion should require. These boots were made of strong drab cloth, with thick soles of cork, the slowly conducting property of which substance, together with their large size, allowing a free circulation to the blood, afforded the utmost comfort that could be desired. Boots or shoes of *leather* never retain the warmth long, under circumstances of very severe exposure.

The wind veering to the S.E. on the 24th and 25th, the thermometer gradually rose to $+23^{\circ}$. I may possibly incur the charge of affectation in stating, that this temperature was much too high to be agreeable to us; but it is nevertheless the fact, that everybody felt and complained of the change. We had often before remarked, that considerable alterations in the temperature of the atmosphere are as sensibly felt by the human frame at a very low part of the scale, as in the higher. The difference consists only in this, that a change from -40° upward to about *zero* is usually a very welcome one, while from *zero* to the freezing point, as in the instance just alluded to, it becomes, to persons in our situation, rather an inconvenience than otherwise. This may be more readily imagined by considering that our clothing, bedding, fires, and other precautions against the severity of the climate having been once adapted to a low degree of cold, an increase of temperature renders them oppressive and inconvenient; while any reduction (of the first two, at least) is impracticable

with safety. To this must be added, that at this temperature the snow becomes too soft for convenient walking, and the accumulation of ice in the crevices and linings of the officers' cabins is converted into a source of extreme annoyance, which, while it continues solid, is never experienced. It is true that these inconveniences occur in a much greater degree in the spring; but being then hailed as the harbingers of the return of permanent warmth, it is easy to obviate some, and would be hard to complain of any of them.

Nov. 6.—For several days about this period the weather continued remarkably mild, the thermometer generally rising as high as from $+20^{\circ}$ to $+28^{\circ}$ in the course of the day, from the 6th to the 16th. Most of our necessary arrangements for the security of the ships and stores during the winter being now completed, the people were employed in what they called “rigging the theatre,” and on the evening of the 9th the officers performed the play of the “Rivals,” to the infinite amusement of both ships' companies.

On the 1st of December there was a space of many miles in which none of the “old ice” was visible. The sea was here for the most part covered with a very thin sheet of “young” ice, probably the formation of a single day, since the westerly wind had driven the floes off the land. The whole of this was in motion with the tide, which, breaking the thin floes, left several spaces of clear water. It was observable that, though a considerable frost-smoke arose from the young ice, it was not so dense as that from the clear water, immediately over every pool of which a little thick cloud

floated, corresponding as well in size as in situation with the pond from whence it issued. A number of dovekies were swimming about the point; and it being desirable, if possible, to obtain some of them for the sake of ascertaining their plumage at this season, we hauled the small boat over and launched her. Mr. Ross succeeded in killing one of the birds, which was preserved as a specimen, but it was with great difficulty that the boat avoided being carried away from the shore by the young ice. I was, on this account, afraid of repeating the attempt during the rest of the winter. One grouse was seen on shore; it appeared entirely white, except having its tail black near the tip.

I was this day under the necessity of closing in my stern dead-lights, and fixing cork shutters between the double window-frames of my cabin, the temperature having lately fallen rather low at night, in consequence of which, one of the chronometers had stopped on the 26th of November. We had before this time banked the snow up against the sides; but it was now thrown higher, and its thickness at the bottom increased to about four feet. Besides this, a bed of snow, three feet deep, was subsequently laid on the deck over my cabin, and also on the fore-castle over the sick-bay, to assist in retaining the warmth in those parts of the ship; an office which it seemed to perform very effectually. It was impossible, however, as the cold increased, to keep up a tolerably comfortable temperature in the cabin if the fire was suffered to go out for several hours: for instance, the night after the above arrangements had been made, the fire was out for only six hours; and the consequence was, that the

thermometer fell to 27° , and could be got no higher on the following day, in the after part of the cabin, though only nine feet from the stove, than 33° . This was, indeed, a most inclement day, the temperature of the atmosphere having for the first time fallen to -27° , accompanied by a fresh wind from the northward and westward.

A great squeezing of the young floes took place at the S.E. point of the island on the 12th. The noise it makes when heard at a distance very much resembles that of a heavy wagon labouring over a deep gravelly road; but, when a nearer approach is made, it is more like the growling of wild animals, for which it was in one or two instances mistaken. It was, however, rather useful than otherwise, to encourage the belief that bears were abroad, as, without some such idea, people are apt to become careless about going armed.

The thermometer rising to -5° in the course of the 17th, the weather appeared warm to our feelings. - It proved favourable also for another play, which had been fixed for this night, and the "Poor Gentleman" was performed by the officers in so admirable and feeling a manner as to excite uncommon interest among the men, and to convince me more than ever of the utility of our theatrical amusements. The 18th was a remarkably clear day, without any of that cloudiness which usually hung about the southern horizon. The sun was therefore clearly visible at noon, when such was its oval shape that its horizontal diameter exceeded the vertical by $4'.07''$. We had light in the cabin for reading and writing for three hours and a quarter without candles, and about five hours for convenient walking.

On the evening of the 24th, being Christmas eve, the ships' companies were amused by the officers performing the two farces of "A Roland for an Oliver," and the "Mayor of Garratt." On Christmas day, divine service on board the *Fury* was attended by the officers and crews of both ships. A certain increase was also made in the allowance of provisions, to enable the people to partake of Christmas festivities to the utmost extent which our situation and means would allow; and the day was marked by the most cheerful hilarity, accompanied by the utmost regularity and good order. Among the luxuries which our Christmas dinner afforded was that of a joint of English roast beef, of which a few quarters had been preserved for such occasions, by rubbing the outside with salt, and hanging it on deck covered with canvass. The low latitude in which our last summer's navigation was performed would have rendered its preservation doubtful without the salt.

On the arrival of the last day of the year, it was impossible not to experience very high gratification in observing the excellent health and spirits enjoyed by almost every officer and man in both ships. The only invalid in the expedition was Reid, our carpenter's mate, and even he was at this period so much improved, that very sanguine hopes were entertained of his continued amendment. In consequence of the effectual manner in which the men were clothed, particularly about the feet, not a single frostbite had occurred that required medical assistance even for a day; and, what was more important to us, not a scorbutic symptom had appeared.

To increase our ordinary issue of anti-scorbutics, liberal as it already was, we had from the commencement of the winter adopted a regular system of growing mustard and cress, which the superior warmth of the ships now enabled us to do on a larger scale than before. Each mess, both of the officers and ships' company, was for this purpose furnished with a shallow box filled with mould, in which a crop could generally be raised in from eight to ten days. The quantity thus procured on board the *Fury* now amounted to about fifty pounds' weight, and before the arrival of spring to nearly one hundred pounds; and, trifling as such a supply may appear to those who are in the habit of being more abundantly furnished, it will not be considered to have been without its use, when it is remembered how complete a specific for the scurvy *fresh* vegetable substance has invariably proved.

With respect to the occupations which engaged our time during this season of unavoidable inactivity, I can add little or nothing to my former account of the manner in which we passed the winter at Melville Island; for the two situations were so nearly similar, and our resources necessarily so limited in this way, that it was not easy to produce much variety in the employment of them. It may be imagined, and was, indeed, anticipated by ourselves, that want of novelty was on the present occasion a disadvantage likely to render our confinement more tedious than before; but this by no means appeared to be the case: for the men, sufficient employment may always be found to prevent the possibility of their being idle; and I have ai-

ready noticed the auxiliaries to which we had recourse to assist in promoting this end ; while most officers have resources within themselves, of which scarcely any situation or circumstances can divest them. What with reading, writing, making and calculating observations, observing the various natural phenomena, and taking the exercise necessary to preserve our health, nobody, I believe, ever felt any symptoms of *ennui* during our continuance in winter-quarters.

Among the recreations which afforded the highest gratification to several among us, I may mention the musical parties we were enabled to muster, and which assembled on stated evenings throughout the winter, alternately in Captain Lyon's cabin and my own. More skilful amateurs in music might well have smiled at these our humble concerts ; but it will not incline them to think less of the science they admire, to be assured that, in these remote and desolate regions of the globe, it has often furnished us with the most pleasurable sensations which our situation was capable of affording : for, independently of the mere gratification afforded to the ear by music, there is, perhaps, scarcely a person in the world really fond of it, in whose mind its sound is not more or less connected with "his far distant home."

With our time thus occupied, our comforts so abundant, and the prospect to seaward so enlivening, it would, indeed, have been our own faults had we felt anything but enjoyment in our present state, and the most lively hopes and expectations for the future.

CHAPTER VII.

Many Foxes caught.—Continued Open Water in the Offing.—Partial Disruption of the Ice in the Bay.—Meteorological Phenomena, and Temperature of Animals.—Arrival of a Tribe of Esquimaux.—First Meeting and subsequent Intercourse with them.—Esquimaux in Want of Provisions.—Supplied with Bread-dust.—Some Account of a Sealing Excursion with them.—Fresh Disruption of the Ice in the Bay.—Closing of the Winter Theatre.—Meteorological Phenomena till the end of February, 1822.

THE first day of the new year was a very severe one in the open air, the thermometer being down to -22° , and the wind blowing strong from the northwest. The effect of a breeze upon the feelings is well known to every person, even in comparatively temperate climates, but at low temperatures it becomes painful and almost insupportable. Thus, with the thermometer at -55° , and no wind stirring, the hands may remain uncovered for ten minutes or a quarter of an hour without inconvenience; while, with a fresh breeze, and the thermometer nearly as high as *zero*, few people can keep them exposed so long without considerable pain.

About noon on the 2d, Captain Lyon observed a considerable body of snow taken up by the wind and whirled round in a spiral form like that of a water-spout, though with us the breeze was quite light at the time. It increased gradually in size till lost behind the southeast point. As a proof of the difficulty which the hares must find in obtaining

subsistence during the winter, these animals were at this time in the habit of coming alongside the ships upon the ice to pick up what they could from our rubbish-heaps. A fox or two still entered the traps occasionally, and our gentlemen informed me that they had always been most successful in catching them after a southerly wind, which they attributed, with great probability, to the smell of the ships being thus more extensively communicated over the island. One or two of these poor creatures had been found in the traps with their tongues almost bitten in two. The traps made use of for catching these beautiful little animals were formed of a small cask, having a sliding-door like that of a common mouse-trap, and were baited with oiled meat or blubber. The whole number caught during the winter was between eighty and ninety, of which more than seventy were taken before the end of December. In a single trap of Captain Lyon's, no less than fifteen were caught in the course of four hours, on the night of the 25th of November; and the people engaged in watching the trap remarked, that no sooner had one of these animals been taken out, and they themselves retired a few yards, than another entered it. So stupid, indeed, are they in this respect, that, in several instances, those which had escaped from the ships entered, and were recaptured in the same traps as before.

Jan. 14.—An ermine, of which the tracks had been traced the preceding day up the Hecla's stern, and even on board her, Captain Lyon to-day succeeded in catching in a trap. This beautiful creature was entirely white, except a black brush to its tail, and a slight tinge of the usual sulphur or straw

colour on the root of the tail, and also on the fore part of the fore legs. The little animal being put into a convenient cage, seemed soon to feel himself perfectly at home, eating, drinking, and sleeping without any apparent apprehension, but evincing a very decided determination to resent a too near approach to the wires of his new habitation.

Jan. 18.—At a late hour this evening the stove-pipe of my cabin caught fire, which gave us a momentary alarm, but, buckets and water being at hand, it was soon extinguished. This accident was occasioned by a quantity of soot collected in the stovepipe, and yet was not altogether to be attributed to neglect in the persons appointed to sweep the whole of them twice a week. As the cause of it is such as is not likely to be anticipated by persons living in temperate climates, and as the knowledge of it may be serviceable to somebody destined for a cold one, I shall here explain it. The smoke of coals contains a certain quantity of water in the state of vapour. This, in temperate climates, and, indeed, till the thermometer falls to about 10° below *zero*, is carried up the chimney and principally diffused in the atmosphere. When the cold becomes more intense, however, this is no longer the case; for the vapour is then condensed into water before it can escape from the stovepipes, within which a mass of ice is, in consequence, very speedily formed.* The vapour thus arrested must necessarily also detain a quantity of soot, which,

* When the weather was not very severely cold, and a part of the vapour escaped from the pipe of the galley-fire, the fore-rigging was always coated with ice, from the smoke passing by it.

being subsequently enclosed in the ice as the latter accumulates, the brush generally used to clean the pipes cannot bring it away. By any occasional increase of temperature, either in the external air or in the fire below, the ice sometimes thaws, pouring down a stream of water into the fire, and bringing with it a most pungent and oppressive smell of soot. For these reasons, as well as to avoid accidents of the nature above alluded to, it is necessary to sweep the pipes much more frequently than in warmer climates, and even occasionally to thaw the ice out of them by a fire made expressly for the purpose.

On the morning of the 1st of February it was reported to me that a number of strange people were seen to the westward, coming towards the ships over the ice. On directing a glass towards them we found them to be Esquimaux, and also discovered some appearance of huts on shore, at the distance of two miles from the ships, in the same direction. I immediately set out, accompanied by Captain Lyon, an officer from each ship, and two of the men, to meet the natives, who, to the number of five-and-twenty, were drawn up in a line abreast, and still advanced slowly towards us. As we approached nearer they stood still, remaining, as before, in a compact line, from which they did not move for some time after we reached them. Nothing could exceed their quiet and orderly behaviour on this occasion, which presented a very striking contrast with the noisy demeanour of the natives of Hudson's Strait. They appeared at a distance to have arms in their hands; but what we had taken for bows or spears proved to be only a few blades of whalebone, which they had brought

either as a peace-offering or for barter, and which we immediately purchased for a few small nails and beads. Some of the women, of whom there were three or four, as well as two children, in this party, having handsome clothes on which attracted our attention, they began, to our utter astonishment and consternation, to strip, though the thermometer stood at 23° below *zero*. We soon found, however, that there was nothing so dreadful in this as we at first imagined, every individual among them having on a complete double suit. The whole were of deerskin, and looked both clean and comfortable.

However quietly the Esquimaux had awaited our approach, and still continued to conduct themselves, there was as little apprehension or distrust visible in their countenances or manner as it was possible for one strange set of persons to evince on meeting another. As soon, therefore, as we had bought all that they had to sell, and made them a number of valuable presents, we expressed by signs our wish to accompany them to their huts, with which they willingly complied, and we immediately set out together. On our way the Esquimaux were much amused by our dogs, especially by a large one of the Newfoundland breed, that had been taught to fetch and carry; a qualification which seemed to excite unbounded astonishment; and the children could scarce contain themselves for joy when Captain Lyon gave them a stick to throw for the dog to bring back to them. A child of five or six years old, thus amusing itself, on such a day and in such a climate, formed by no means the least characteristic figure of our motley group. An old and infirm man, supported by a stick, which, indeed, he much

needed, was soon left behind us, his companions seeming to take no notice of his infirmities, and leaving him without reluctance or apology to find his way home at his own pace. When we had approached the huts within a few hundred yards, three of the Esquimaux went on before us, having previously explained that they were going to confine their dogs, lest, being frightened at our coming, they should run away.

When it is remembered that these habitations were fully within sight of the ships, and how many eyes were continually on the look-out among us for anything that could afford variety or interest in our present situation, our surprise may in some degree be imagined at finding an establishment of five huts, with canoes, sledges, dogs, and above sixty men, women, and children, as regularly and, to all appearance, as permanently fixed as if they had occupied the same spot for the whole winter. If the first view of the exterior of this little village was such as to create astonishment, that feeling was in no small degree heightened, on accepting the invitation soon given us to enter these extraordinary houses, in the construction of which we observed that not a single material was used but snow and ice. After creeping through two low passages, having each its arched doorway, we came to a small circular apartment, of which the roof was a perfect arched dome. From this three doorways, also arched, and of larger dimensions than the outer ones, led into as many inhabited apartments, one on each side, and the other facing us as we entered. The interior of these presented a scene no less novel than interesting. The women were seated

on the beds at the sides of the huts, each having her little fireplace or lamp, with all her domestic utensils about her; the children crept behind their mothers, and the dogs, except the female ones, which were indulged with a part of the beds, slunk out past us in dismay. The construction of this inhabited part of the huts was similar to that of the outer apartment, being a dome formed by separate blocks of snow, laid with great regularity and no small art, each being cut into the shape requisite to form a substantial arch, from seven to eight feet high in the centre, and having no support whatever but what this principle of building supplied. I shall not here farther describe the peculiarities of these curious edifices, remarking only that a cheerful and sufficient light was admitted to them by a circular window of ice neatly fitted into the roof of each apartment.

We found our new acquaintance as desirous of pleasing us as we were ready to be pleased; so that we were soon on good terms with them all. While we were engaged in examining every part of their huts, their whole behaviour was in the highest degree orderly, respectful, and good-humoured. They eagerly received the various articles that were given them, either in exchange for their own commodities or as presents, but on no occasion importuned us for anything, nor did the well-known sound of "pilletay" once escape from them. We had also great reason to believe that these people possessed, in no ordinary degree, the quality of honesty; a quality the more desirable to us, as we had on shore, besides the house and observatory, all our boats and other articles, which,

had they been disposed to pilfer, it would have required all our vigilance to guard. If we dropped a glove or a handkerchief without knowing it, they would immediately direct our attention to it by pointing; and if the owner had left the hut before they discovered it, would run out after him to return it. Numberless instances of a similar kind occurred in the course of our subsequent communication with them, some of which I shall hereafter have an opportunity of relating.

After remaining with them a couple of hours, and proposing to spend the following day among them, we set out on our return to the ships. Being desirous of trying their disposition to part with their children, I proposed to buy a fine lad, named *Toolooak*, for the very valuable consideration of a handsome butcher's knife. His father, apparently understanding our meaning, joyfully accepted the knife, and the boy ran into the hut to fetch his mittens, which seemed to be all that he cared for in leaving his home. He then set off with us in high spirits, and at first assisted in drawing a sledge we had purchased to carry our things; but as he began, by our additional signs, more clearly to comprehend our true meaning, he gradually relaxed in his zeal to accompany our party, and, being afterward overtaken by a number of his companions, he took an opportunity to slink off among some hummocks of ice, so that, when we arrived on board, *Toolooak* was missing.

On our reaching the ships, these people expressed much less surprise and curiosity than might naturally have been expected on their first visit, which may, perhaps, in some measure, be attributed to

their being in reality a less noisy kind of people than most of the Esquimaux to whom we had before been accustomed. Quiet and orderly, however, as they were disposed to be, this first visit showed them to be as fond of merriment as their countrymen are usually considered; for, on Captain Lyon's ordering his fiddler up on the Hecla's deck, they danced with the men for an hour, and then returned in high glee and good-humour to their huts.

On our return on board we were informed that, during our absence in the morning, a flock of thirteen wolves, the first yet seen, crossed the ice in the bay from the direction of the huts, and passed near the ships. These animals, as we afterward learned, had accompanied or closely followed the Esquimaux on their journey to the island the preceding day; and they proved to us the most troublesome part of their *suite*. They so much resemble the Esquimaux dogs, that, had it not been for some doubt among the officers who had seen them whether they were so or not, and the consequent fear of doing these poor people an irreparable injury, we might have killed most of them the same evening, for they came boldly to look for food within a few yards of the Fury, and remained there for some time.

In order to prevent our people from occasioning the Esquimaux any disturbance or apprehension, I directed that only six from each ship should be allowed to visit the huts at one time, and that they should then be always accompanied by an officer. A strict prohibition was, at the same time, issued against the smallest article of the ships' stores be-

ing given to the people without permission, on pain of severe punishment.

At an early hour on the 2d we set out, with a large party, on our proposed excursion to the huts. The natives received us with great cordiality, though with somewhat more noisy expressions of pleasure than before; and we soon began a more minute examination of their habitations and furniture, in which they readily assisted us, except that they always sat very closely on the deerskins which composed their beds, under which were stowed such articles as they were least willing or able to dispose of. They sold, however, a great number of their things without reluctance; and it was, indeed, astonishing to see with what eagerness they would, for the mere sake of change and variety, barter some of their most indispensable articles for the veriest trifles in our possession. For instance, a single sewing-needle, of which they possessed abundance not much inferior to our own, procured from them a large, well-sharpened *pānna*, or man's knife, made of stout iron, for which, in point of absolute utility, a hundred needles would not have been a fair equivalent. Various other instances of the same kind occurred, by which, indeed, they were not ultimately losers, though they certainly would have been so had our intercourse ended here.

We dined in the huts, and the Esquimaux gladly partook of our biscuit and meat, and even of a little wine, which, however, they did not relish. We returned on board about sunset, much gratified with the interesting day we had passed; having laid the foundation of that perfect confidence

and good understanding which, with little or no interruption, afterward subsisted between us and our new acquaintance.

On the morning of the 3d, a number of these people were observed to set off over the ice to the southwest, to bring, as we conjectured, either some more of their people or of their property from their last place of abode. On walking out to the huts after divine service, however, we found they had been seal-catching, and had succeeded in taking four. The very small quantity of food which they had in their huts at first coming, consisting of a little venison, and the flesh and blubber of the whale and seal, induced us to suppose they had left some of their provision behind, and that they would return for it as occasion demanded. But we now found that even at this rigorous season they were entirely dependant in this way on their daily exertions, and they had only removed into their present quarters on account of the failure of their summer's store, and of the greater facility of obtaining seals at Winter Island than where the sea was more closely and continually frozen.

On the 4th a number of Esquimaux came to the ships, and we took the opportunity of getting them to go through the process of building a snow hut for our amusement and information. From the quickness with which they completed this, our surprise at the sudden appearance of their village ceased; as we now saw that two or three hours would be more than sufficient to complete the whole establishment just as we at first found it. They were then taken on board, and derived great amusement from our organ, and from anything in

the shape of music, singing, or dancing, of all which they are remarkably fond. Nor can I here omit a striking instance of the honesty of these people which occurred to-day. Some of the gentlemen of the Hecla had purchased two of their dogs, which had the preceding evening made their escape and returned to the huts. After the departure of the Esquimaux to-day, we were surprised to find that they had left two dogs carefully tied up on board the Fury, which, on inquiry, proved to be the animals in question, and which had been thus faithfully restored to their rightful owners.

On the 5th a number of the natives came on board, according to promise, to rebuild the hut in a more substantial manner, and to put a plate of ice into the roof, as a window, which they did with great quickness as well as care, several of the women cheerfully assisting in the labour. The men seemed to take no small pride in showing in how expeditious and workmanlike a manner they could perform this; and the hut, with its outer passage, was soon completed. From this time they were in the constant habit of coming freely to the ships; and such as it was not always convenient to admit usually found very profitable employment in examining the heaps of ashes, sand, and other rubbish on the outside, where their trouble was well repaid by picking up small scraps of tin or iron. All that they found in this manner we allowed them to consider as their lawful property; but were very particular in preventing their handling anything on board without permission.

The wolves had now begun to do us some damage; for not even the sails that were fastened round

the house and observatory could escape their ravenous fangs, and they had thus, in the course of a single night, much injured two of our studding-sails. We set traps for them on the ice, and also large shark-hooks, secured with chains and baited with meat; but the former they entered and destroyed, and the latter was always found broken or bent, without securing the depredators. These animals were indeed so hungry and fearless as to take away some of the Esquimaux dogs in a snow-house near the Hecla's stern, though the men were at the time within a few yards of them.

From the circumstance of Captain Lyon and myself having accidentally gone into different huts on our first visits to the village (for by this name I believe we must venture to dignify the united abodes of more than sixty human beings), particular individuals among the Esquimaux had already, in a manner, attached themselves to each of us. Captain Lyon now informed me that one of his acquaintance, a remarkably fine and intelligent young man, named *Āyōkēt*, had given him to understand that he had somewhere or other seen *Kabloona** people like ourselves only a few months ago. This being the case, there seemed no reason why, if it were made worth his while, he should not be able to see them again in the course of next summer. Anxious to profit by this unexpected mode of communication, I requested Captain Lyon to endeavour to direct Ayoket's attention to the scheme of conveying a letter from us to the persons of whom he spoke.

* European.

On the 7th I paid another visit to the huts, where I found scarcely anybody but women and children, the whole of the men, with the exception of the two oldest, having gone on a sealing excursion to the northeastern side of the island. One of the women, named *Iligliuk*, a sister of the lad *Tooolook*, who favoured us with a song, struck us as having a remarkably soft voice, an excellent ear, and a great fondness for singing, for there was scarcely any stopping her when she had once begun. We had, on their first visit to the ships, remarked this trait in *Iligliuk's* disposition, when she was listening for the first time to the sound of the organ, of which she seemed never to have enough; and almost every day she now began to display some of that superiority of understanding for which she was so remarkably distinguished. A few of the women learned several of our names to-day, and I believe all thought us *Angekoks** of a very superior class, when we repeated to them all round, by the assistance of our books, the names of all their husbands, obtained on board the preceding day. On our way back to the ships we saw a party of them, with their dogs, returning over the hill from the northeastward; and we afterward met another of eight or ten, who had walked round by the southeast point on the ice, all alike unsuccessful, after being out in the wind for six hours, with the thermometer from 18 to 22 degrees below *zero*. Thus hardly did these people obtain their daily subsistence at this severe season of the year.

* Sorcerers or wizards, pronounced as written above in Greenland; but at Winter Island *Ang-ét-kōok*; and by the people at Igloolik, *An-nāt-kō*.

A wolf being caught in one of the traps this evening, which was so close as to be easily watched from the ship, a party of the officers ran out to secure the depredator, and fired two balls into the trap at once to despatch him. Finding, after this, that he continued to bite a sword that was thrust in, a third shot was fired at him. The trap was then sufficiently opened to get his hind legs firmly tied together, after which, being considered tolerably secure, he was pulled out of the trap, which, however, his head had scarcely cleared, when he furiously flew at Mr. Richards's throat, and would certainly have done him some serious mischief had not that gentleman, with great presence of mind, seized the animal in his turn by the throat, squeezing him with all his force between both hands. This made the wolf relinquish his first attempt, and Mr. Richards only suffered by a bite in his arm and another in his knee, which, on account of the thickness of his clothes, were happily not severe ones. As for the wolf, he prudently took to his heels, though two of them were still tied together ; and, being favoured by the momentary confusion occasioned by his late rencounter with Mr. Richards, succeeded in escaping his pursuers. He was found dead the following day at the distance of three quarters of a mile from the ships.

On the 8th we were visited by a musical party of females, consisting only of a few individuals expressly invited for this purpose. A number of the officers assembled in the cabin to hear this vocal concert, while Mr. Henderson and myself took down the notes of their songs, for which, indeed, they gave us every opportunity, for I thought they

would never leave off. We afterward amused them with our little band of flutes and violins, and also by some songs, with the whole of which they were extremely well pleased. I feared several of them, and especially Iligliuk, would go into fits with delight when we introduced into our song some of their names mingled with our own. While most of us were thus employed, Captain Lyon took the opportunity of making drawings of some of the women, especially of *Togolat*, the prettiest of the party, and, perhaps, of the whole village. She was about six-and-twenty years of age, with a face more oval than that of Esquimaux in general, very pretty eyes and mouth, teeth remarkably white and regular, and possessing in her carriage and manners a degree of natural gracefulness, which could not be hid even under the disguise of an Esquimaux woman's dress, and, as was usual with *Togolat*, the dirtiest face of her whole tribe. Her husband, *Ewerat*, a little ugly man of about five-and-forty, was the only individual among them laying claim to the title of Angetkook, and was, in reality, a sensible, obliging man, and a first-rate seal-catcher. They had two children, one of which, a little girl, *Togolat* still occasionally suckled, and, according to custom, carried in the hood behind her back; the other, a boy about eight years of age, quite an idiot, deaf and dumb from his birth, and squinting most horribly with both eyes.

Finding that these poor creatures were now really in want of food, for the men had again returned from an unsuccessful excursion, I was happy to avail myself of a hint given to me by Captain Lyon, to furnish them occasionally with a

small supply of bread-dust, of which we had two or three casks in each ship. Our present party was therefore, in addition to other articles, supplied with several pounds, which they immediately expressed their intention to take home to their children. Several of them visited the ships as usual on the 9th, and among the rest Ka-oong-ut and his son Toolook. The old gentleman was not a favourite with us, being the only one who had yet begun to tease us by constant begging. We had often expressed displeasure at this habit, which, after a day or two's acquaintance, began to be extremely troublesome; but I had to-day to take cognizance of his stealing a nail, of which I determined to take a rather serious notice, as it might otherwise lead to more extensive theft. I therefore collected all the other Esquimaux who were on board, and having in their presence expressed great indignation at this conduct, turned the offender away in disgrace. Some of those best acquainted with us were afterward taken into the cabin, where our sentiments were more fully explained to them. Among these I was not sorry to have Toolook and Iligliuk, who would not fail to report at the huts all our proceedings, but who did not appear to consider themselves in the slightest degree implicated in their father's offence, or concerned in his disgrace. The people of the huts being much in want of food, we again distributed some bread-dust among them, taking care to send a portion to the infirm old man, *Hik-kēi-ērā*, by *Okōtook*, the husband of Iligliuk, a fine, active, manly fellow of about two-and-thirty, who, as we were pleased to find the next day, had punctually executed his commission.

The Esquimaux went out on the 10th to endeavour to catch seals as usual, but returned unsuccessful after several hours' labour. As it was now evident that their own exertions were not at all times sufficient to procure them food at this season, and that neither indolence nor any idea of dependance on our charity induced them to relax in those exertions, it became incumbent on us carefully to attend to their wants, and, by a timely and judicious application of the slender resources we had set aside for their use, prevent any absolute suffering among them. We therefore sent out a good meal of bread-dust for each individual, to be divided in due proportion among all the huts. The necessity of this supply appeared very strongly from the report of our people, who found some of these poor creatures actually gnawing a piece of hard seal-skin with the hair on it, while few of the huts had any lamp alight. It must be remembered that the failure of their seal-fishery always involves a double calamity, for it not only deprives them of food, but of fuel for their lamps. When this is the case, not to mention the want of warmth and light in the huts, they are also destitute of the means of melting snow for water, and can therefore only quench their thirst by eating the snow, which is not only a comfortless, but an ineffectual resource. In consequence of this, it was surprising to see the quantity of water these people drank whenever they came on board; and it was often with difficulty that our coppers could answer this additional demand. I am certain that Toolook one day drank nearly a gallon in less than two hours. Besides the bread-dust, we also supplied them to-day with a wolf's

carcass, which, raw and frozen as it was, they ate with a good appetite ; and, indeed, they had not the means of cooking, or even thawing it. I cannot here omit a pleasing trait in their character, observed by our people who carried out their supplies ; not a morsel of which would the grown-up people touch till they had first supplied the wants of their hungry little ones.

On the morning of the 12th, Okotook and his uncle *Arnaneelia*, a sensible and worthy man of about five-and-forty years of age, coming on board from their fishing, we showed them the stage and scenery that were just put up, and invited them and their wives to the play about to be performed this evening. They accordingly went back and brought the women, who understood they were to be present at some diversion, though they did not well know what. It was enough, however, with Iligliuk, just to make the motion of turning the handle of the organ, which, conveying to her mind the idea of music and merriment, was always sure to put her immediately into high spirits. As they came three or four hours before the performance of "John Bull" was to commence, they began to grow tired and impatient, especially when it became dusk, and candles were brought into the cabin. The men then explained that it would soon be dark, and that, in returning late to their huts, they should disturb the people who would then be fast asleep there. Finding that they grew uneasy, I made no objection to their returning, and sent them off loaded with bread-dust and some oil for each of their lamps. They remained long enough, however, to have a peep at *Mrs. Brulgruddery*, whose dress, when they were

informed it was that of a *kablōōna noollē-ō* (European wife), they were very anxious in examining, and seemed to grieve at going away without sharing the diversion which this and other preparations seemed to promise.

On the 13th, our friends at the huts were fortunate in procuring three seals, an event that created great joy at the village. Mr. Allison, who happened to be there when one of these prizes was announced, informed me that there was a general outcry of joy; all the women hurried to the doors of the huts, and the children rushed to the beach to meet the men dragging along the prize. One of these little urchins, to complete the triumphant exultation with which this event was hailed, instantly threw himself on the animal, and clinging fast to it, was thus dragged to the huts. Each woman was observed to bring her *ōōtkōōsēek*, or cooking-pot, to the hut where the seal was dissected, for the purpose of receiving a share of the meat and blubber.

On the 15th it blew a strong gale from S.W. to W.N.W., and the thermometer, either on account of the strength of the wind or its having occasionally some southing in it, rose to -4° , being the highest temperature registered in our journals since the 27th of December preceding. I had agreed with Okotook to accompany him on a sealing excursion, but the day proved too inclement, the Esquimaux not going out themselves, though it was not very often that the weather could prevent them. Considering it desirable to increase, by all the means in our power, the chances of these people giving information of us, we distributed among several of the men large round medallions of sheet

copper, having these words punched through them: "H. B. M. S. Fury and Hecla, all well, A. D. 1822." These we suspended by a piece of white line round their necks, giving them to understand that they were to show them to any Kabloona people they might ever meet with in future. Similar ornaments, but of a smaller size, were subsequently presented to many of the women, having on them the words "Fury and Hecla, 1822."

Early on the morning of the 16th, observing a party of the Esquimaux, equipped with spears, passing near the ships, I joined them, accompanied by Mr. Bushnan and one or two others. Having crossed the point of the island, they walked over the ice to the eastward, where we did not overtake them till they had got above a mile and a quarter from the shore. This party consisted of eight persons, among whom we were glad to find Arnaneelia, Okotook, Toolooak, *Pootoolook* his elder brother, and one or two others whom we knew. They had by this time, however, separated into two or three different parties, stationed at the distance of half a mile from each other, along the edge of the floe, beyond which, to the eastward, there was clear water as far as we could see for frost-smoke.

The party we at first joined were seated on a high hummock of ice, with their spears in their hands, looking out for seals. After we had talked to them for a few minutes, Okotook suddenly started up and set off along the edge of the ice, without giving us or his companions the least warning. The latter seemed so much accustomed to this, that they took no farther notice than by immediately following him, and we did the same; the whole

party walking at a very quick rate, and the natives keeping their heads constantly turned towards the sea to look out for seals. After being thus engaged for an hour and a half, we judged, from the motions of a party at some distance beyond us, that they had game in view. As we approached them, Okotook evidently began to be apprehensive that we, who did not understand the matter, would spoil their sport. To prevent this, he did the most civil thing that could well have been devised, which was, to send his companions one by one to the spot, and to remain with us himself, keeping us at such a distance as to allow us to see their proceedings, without alarming the animal they were in pursuit of. The other seven Esquimaux, now forming one party, disposed themselves into a single line, so as to make as small an appearance as possible in the direction in which they were going, and in this manner crept very cautiously towards the margin of the floe. On a sudden, they all stooped down quite low to hide themselves, and continued thus a quarter of an hour, during which time they prepared their lines and spears; and then, when the animal appeared to be intercepted from their view, again took the opportunity of gaining a few paces upon him, in the same cautious manner as before. When they had been thus occupied for a full hour, alternately creeping and stooping down, the seal, which had been lying on the ice, took the water, and they then gave up their chase. During this time, Okotook could scarcely restrain his impatience to be nearer the scene of action; and when we produced a spyglass, which appeared to bring his companions close to us, he had not words to express his

surprise and satisfaction. In a short time he held it as steadily as we did, and explained by signs every motion he observed.

As soon as they had given up the seal they had been watching, the whole party seemed with one accord to turn their steps homeward, in which direction, being that of the ships also, we were by this time not sorry to accompany them. We were now between three and four miles northeast of the ships, and full a mile and a half from any part of the shore. In the open water beyond the floe, the tide was running two knots to the northward, and as the ice on which we stood had been formed only within the last fortnight, and a sheet as substantial as this had before been carried away by the stream it was impossible not to feel some apprehension lest we might thus be detached from the shore, an accident that has been known to happen to Esquimaux ere now,* and has probably more frequently befallen them, when none have survived to tell the tale.

As we returned towards the land, we came to a small rising on the level surface of the floe not larger than a common molehill, and of much the same shape, at which one of the Esquimaux immediately stopped. His companions, still walking on, called us away, explaining that what we saw was the work of a seal, and that it was probable the animal was about to complete his hole and to come up on the ice, in which case the man would endeavour to kill him. We watched the man at the hole, however, with a glass, for more than half an hour, observing him constantly putting his head

* Crantz, London edition, 1820, Appendix, p. 310.

down towards the ice, as if in the act of listening for the seal, but without otherwise changing his position ; after which he followed us on board without success.

If, however, a man has any reason to suppose that a seal is at work beneath, he immediately attaches himself to the place, and seldom leaves it till he has succeeded in killing the animal. For this purpose, he first builds a snow-wall about four feet in height, to shelter him from the wind, and, seating himself under the lee of it, deposits his spear, lines, and other implements upon several little forked sticks inserted into the snow, in order to prevent the smallest noise being made in moving them when wanted. But the most curious precaution to the same effect consists in tying his own knees together with a thong, so securely as to prevent any rustling of his clothes, which might otherwise alarm the animal. In this situation a man will sit quietly sometimes for hours together, attentively listening to any noise made by the seal, and sometimes using the *keip-kuttuk*, an instrument hereafter described, in order to ascertain whether the animal is still at work below. When he supposes the hole to be nearly completed, he cautiously lifts his spear, to which the line has been previously attached, and, as soon as the blowing of the seal is distinctly heard, and the ice consequently very thin, he drives it into him with the force of both arms, and then cuts away with his *panna* the remaining crust of ice, to enable him to repeat the wounds and get him out. The *neitiek* is the only seal killed in this manner, and, being the smallest, is held while struggling either simply by hand, or

by putting the line round a spear with the point stuck into the ice. For the *oguke*, the line is passed round the man's leg or arm; and for a walrus, round his body, his feet being at the same time firmly set against a hummock of ice, in which position these people can, from habit, hold against a very heavy strain. Boys of fourteen or fifteen years of age consider themselves equal to the killing of a *neitiek*, but it requires a full-grown person to master either of the larger animals.

On the 17th, a number of the Esquimaux coming before the church service, we gave them to understand, by the sun, that none could be admitted before noon, when they quietly remained outside the ships till divine service had been performed. We then endeavoured to explain to Iligliuk that every seventh day they must not come to the ships, for, without any intention of offending, they had become rather an annoyance in this way. They now brought with them a great many little canoes and paddles, sledges, figures of men and women, and other toys, most of them already bespoke by the officers and men, and the rest for sale.

Toolooak, who now considered himself as quite privileged to find his way into the cabin without a conductor, and was not backward in thus practising his newly-acquired art of opening and shutting the door, sat with me for a couple of hours on the 18th, quietly drawing faces and animals, an occupation to which he took a great fancy; and we often were reminded, by this circumstance, of a similar propensity displayed by his amiable countryman, our lamented friend John Sackhouse. We soon found that Toolooak possessed a capa-

city equal to anything he chose to take an interest in learning; and could he, at his present age, have been voluntarily removed from his companions, and his attention directed to the acquirement of higher branches of knowledge than that of catching seals, he would have amply repaid any pains bestowed upon his education. I had always entertained great objection to taking any such individual from his home, on the doubtful chance of benefiting himself, or of his doing any service to the public as an interpreter. My scruples on this head had hitherto been confined to the consideration due to the individual himself, and to the relatives he leaves behind. In our present case, however, not the smallest public advantage could be derived from it; for it had long ago become evident that we should soon know more of the Esquimaux language than any of them were likely to learn of English in any reasonable period of time. I was therefore far from desiring to receive from Toolook an answer in the affirmative, when I to-day plainly put the question to him, whether he would go with me to *Kablaona noona* (European country). Never was a more decisive negative given than Toolook gave to this proposal. He eagerly repeated the word *na-o* (no) half a dozen times, and then told me that if he went away his father would cry. This simple but irresistible appeal to paternal affection, his decisive manner of making it, and the feelings by which his reply was evidently dictated, were just what could have been wished. No more could be necessary to convince those who saw it, that these people may justly lay equal claim with ourselves to these common feelings of our nature;

and, having once satisfied myself of this, I determined never again to excite in Toolooak's mind another disagreeable sensation, by talking to him on this subject.

Besides the toys and models I have mentioned above, as articles of barter with these people, we also employed them more usefully in making wooden shades for the eyes, after their own method, as the time was fast approaching when some such precaution would become necessary to guard the eyes from the excessive glare of reflected light. There was also a considerable *trade* established in mittens, which being made of prepared sealskin, and nearly water-tight, were particularly serviceable to our men when constantly handling the lead-lines in the summer. In this manner we contrived to turn our new acquaintance to some little account.

Among the natives who visited the *Fury* to-day was Ewerat, of whom I have already spoken as *Ang-et-kook*, or chief sorcerer of the tribe, a distinction with which he had made some of our gentlemen acquainted at one of their earliest visits to the huts. Being desirous of seeing him perform some of the tricks which had acquired for him this pre-eminence, I requested him to indulge me with a sight of them. After some little demur, he began to make his lips quiver, then moved his nose up and down, gradually closed his eyes, and increased the violence of his grimaces till every feature was hideously distorted; at the same time, he moved his head rapidly from side to side, uttering sometimes a snuffling sound, and at others a raving sort of cry. Having worked himself into this

ridiculous kind of phrensy, which lasted, perhaps, from twenty to thirty seconds, he suddenly discontinued it, and suffered his features to relax into their natural form; but the motion of his head seemed to have so stupified him, as indeed it well might, that there remained an unusual vacancy and a drowsy stare upon his countenance for some time afterward. Being pressed to repeat this piece of buffoonery, he did so two or three times; and on one occasion Togolat asked him, in a serious tone, some questions respecting me, which he as seriously answered. In general, however, the women paid little attention to his grimaces, and the whole ended with a hearty laugh from all parties.

I had to-day some conversation with a woman named Appokiuk, whom Iligliuk had mentioned as having seen Kabloona people before us. This woman was gifted, however, with such a volubility of tongue, that speaking, as she did, in a language very imperfectly known to us, she gave no time for questions, and therefore afforded little information. All we could make out for certain was, that she had, within a year past, seen two *Kabloona oomiak* (whether ships or boats was still doubtful*), and that her husband was now far away. From all this we concluded that she had been far enough to the southward to see the Hudson's Bay ships in the course of their annual voyage; and this account gave us very sanguine hopes of being thus able to communicate with them by means of some of the Esquimaux.

On the 20th, a number of our new friends hav-

* These people apply the word *oomiak* to any vessel larger than a canoe.

ing been allowed upon the upper deck, an old woman named *Ayūg-gā-loōk* stole our cooper's punch which she was showing to her companions along side the *Hecla* just afterward, when Lieutenant Hoppner observed it, and sent her back with an escort. It was impossible not to admit that the fault was chiefly on our side, in permitting these poor people to roam about too freely amid temptations which scarcely anything human could have withstood; but as it was necessary to take some notice of it, I went through nearly the same process as with *Kaoongut*, and dismissed her with great appearance of indignation to the huts. We were glad to find that their wants had there been well supplied to-day, three seals having been caught. They had lately, indeed, been tolerably successful in general, and required but little of our assistance. Mr. Elder observing one of their dogs attacked by several wolves, and hastening to the spot with his gun, found that these animals had made such quick work in the partition of their prey, that, though he reached the scene of action in a few minutes, and the dog had at first made considerable resistance, only one of its hind legs remained, each wolf having run off with its share. It is remarkable that these creatures had never entered our traps since the moon had declined to the southward, whereas not a night elapsed before that without their going to them. The Esquimaux had in theirs caught only a fox.

During the eclipse of the sun which took place to-day, the diminution of light was very considerable, but the weather was unfavourable for observing it for any useful purpose. Captain Lyon remarked, that some of the Esquimaux, who were on

board the Hecla at the time, were a good deal alarmed at this phenomenon, which, indeed, made a general bustle among them. Two of them were found on the ice lying on their faces, but it was not ascertained whether their superstitions on this subject were the same as those of their brethren in Greenland.

Mr. Henderson being desirous of seeing something of the customs of these people during the hours of darkness, obtained my permission to pass the night at the huts, accompanied by Mr. Griffiths. Soon after they left the ships in the evening it came on to blow strong from the northwest, with much snowdrift, so that, losing the tracks, they with difficulty found the village. Returning on board in the course of the next forenoon, we were pleased to hear that they had met with every attention, and especially from Okotook, with whom they lodged. As they had slept in Kaoongut's hut, one side of which was occupied by Okotook and his family, the old fellow thought it a good opportunity to make up the quarrel occasioned by his dishonesty; and he accordingly made his appearance on board to-day for the first time since that event. Toolooak was deputed to bring his father down into the cabin, where a formal reconciliation took place, to the great satisfaction of the latter, who had found out that to be out of favour with us was attended with the serious consequence of being also out of pocket. It was laughable to observe the pains he now took to impress on the minds of every person he saw that he was no longer a *tigliktoke*, by which name he had lately been distinguished; for he seemed to think that my receiving him again into favour was a perfect absolution from his offence.

On the 23d I paid another visit to the huts, and found the greater part of the men absent on their sealing excursions. We thought, however, that, except on pressing occasions, one man was left in each hut to keep an eye on the conduct of the women, and this was the case to-day. The huts had in the interior assumed a somewhat different appearance since I had last seen them; the roofs were much blackened by the smoke of the lamps, and the warmth had in most parts given them a glazed and honey-combed surface; indeed, the whole of the walls had become much thinner by thawing, so that the light was more plainly visible through them. The snow also, on which the lamps stood, was considerably worn away, so as to destroy, in great measure, the regularity of the original plan of construction. To these changes might be added that of a vast quantity of blood and oil that now defaced the purity of the snowy floor, and emitted effluvia not very agreeable to European noses; so that, upon the whole, it may be imagined that our first impressions of the comfort and cleanliness of these habitations were more favourable than their present state was calculated to excite.

To the original apartments they had now also added various small places for stores, communicating with the huts from within, and looking something like our ovens, though without any door to them. In some of these they deposited their upper jackets, which they usually take off in coming into their huts, as we do a greatcoat; while in smaller ones, like little shelves in a recess, they kept various articles of their Kablooana riches. These and similar alterations and additions they were constant-

ly making throughout the winter; for their inexhaustible materials being always at hand, it required but little time and labour to adopt any arrangement that might suit their convenience.

After distributing a number of presents in the first four huts, I found, on entering the last, that Pootoolook had been successful in bringing in a seal, over which two elderly women were standing, armed with large knives, their hands and faces besmeared with blood, and delight and exultation depicted on their countenances. They had just performed the first operation of dividing the animal into two parts, and thus laying open the intestines. These being taken out, and all the blood carefully baled up and put into the *ootkooseek*, or cooking-pot, over the fire, they separated the head and flippers from the carcass, and then divided the ribs. All the loose scraps were put into the pot for immediate use, except such as the two butchers now and then crammed into their mouths, or distributed to the numerous and eager by-standers for still more immediate consumption. Of these morsels the children came in for no small share, every little urchin that could find its way to the slaughter-house running eagerly in, and, between the legs of the men and women, presenting its mouth for a large lump of raw flesh, just as an English child of the same age might do for a piece of sugar-candy. Every now and then, also, a dog would make his way towards the reeking carcass, and, when in the act of seizing upon some delicate part, was sent off yelping by a heavy blow with the handles of the knives. When all the flesh is disposed of, for a portion of which each of the women from the

other huts usually brings her ootkooseek, the blubber still remains attached to the skin, from which it is separated the last; and the business being now completed, the two parts of the hide are rolled up and laid by, together with the store of flesh and blubber. During the dissection of their seals, they have a curious custom of sticking a thin filament of skin, or of some part of the intestines, upon the foreheads of the boys, who are themselves extremely fond of it, it being intended, as Iligliuk afterward informed me, to make them fortunate seal-catchers.

The seals which they take during the winter are of two kinds—the *Neitiek*, or small seal (*phoca hispida*), and the *Oguke*, or large seal (*phoca barbata*). These and the *Ei-ũ-ĕk*, or walrus, constitute their means of subsistence at this season; but, on this particular part of the coast, the latter are not very abundant, and they chiefly catch the *neitiek*. The animal we had now seen dissected was of that kind, and with young at the time. A small one taken out of it had a beautiful skin, which, both in softness and colour, very much resembled raw silk; but no inducement could make Pootooalook part with it, he having destined it for that night's supper.

After quitting this scene of filth, I found, on returning to Kaoongut's hut, that Toolooak had been no less successful than his brother, and that the same operation was also performing here. Having, therefore, explained to Iligliuk that none of them were to come to the ships the following day, I had no inclination to see the process repeated, and was glad to take my leave.

On the 28th, Okotook and Iligliuk coming on board, an occurrence took place, which, as it shows the disposition of the Esquimaux, and especially of one of the most intelligent and interesting among them, I may here relate. Some time before, Iligliuk, who, from the superior neatness and cleanliness with which she performed her work, was by this time in great request as a seamstress, had promised to cover for me a little model of a canoe, and had, in fact, sent it to me by the sergeant of marines, though I had not rightly understood from the latter from which of the women it came. Believing that she had failed in her promise, I now taxed her with it, when she immediately defended herself with considerable warmth and seriousness, but without making me comprehend her meaning. Finding that she was wasting her words upon me, she said no more till an hour afterward, when the sergeant accidentally coming into the cabin, she, with the utmost composure, but with a decision of manner peculiar to herself, took hold of his arm to engage his attention, and then looking him steadfastly in the face, accused him of not having faithfully executed her commission to me. The mistake was thus instantly explained, and I thanked Iligliuk for her canoe; but it is impossible for me to describe the quiet, yet proud satisfaction displayed in her countenance at having thus cleared herself from the imputation of a breach of promise.

There being among the presents with which we were supplied a number of pikes, we presented two or three of these from each ship to the most deserving of the Esquimaux, to serve as staves for their spears; and valuable ones they proved to

them. Upon each pike were marked, by small nails driven into the wood, the words "Fury and Hecla, 1822."

Almost the whole of these people were now affected with violent colds and coughs, occasioned by a considerable thawing that had lately taken place in their huts, so as to wet their clothes and bedding; though we had, as yet, experienced no great increase of temperature. From the nature of their habitations, however, their comfort was greater, and their chance of health better, when the cold was more severe. On this account, they began to make fresh alterations in these curious dwelling-places, either by building the former apartments two or three feet higher, or adding others, that they might be less crowded. In building a higher hut, they constructed it over, and, as it were, concentric with the old one, which is then removed from within. It is curious to consider that, in all these alterations, the object kept in view was *coolness*, and this in houses formed of snow!

Some of them had caught a wolf in their trap; but we found that nothing less than extreme want could have induced them to eat the flesh of that which we had given them, as, now that they had other food, they would not touch it. Only four wolves at this time remained alive of the original pack, and these were constantly prowling about near the ships or the village.

The month of February closed with the thermometer at -32° , and, though the sun had now attained a meridian altitude of nearly sixteen degrees, and enlivened us with his presence above the horizon for ten hours in the day, no sensible effect had yet been

produced on the average temperature of the atmosphere. The uniformly white surface of the snow, on which, at this season, the sun's rays have to act, or, rather, leaving them nothing to act upon, is much against the first efforts to produce a thaw; but our former experience of the astonishing rapidity with which this operation is carried on, when once the ground begins to be laid bare, served in some measure to reconcile us to what appeared a protraction of the cold of winter not to have been expected in our present latitude.

CHAPTER VIII.

A Journey performed across Winter Island.—Sufferings of the Party by Frost.—Departure of some of the Esquimaux, and a separate Village established on the Ice.—Various Meteorological Phenomena.—Okotook and his Wife brought on board.—Anecdotes relating to them.—Ships released from the Ice by sawing.

OUR intercourse with the Esquimaux continued, and many occasions occurred in which they displayed great good humour, and a degree of archness for which we could have scarcely given them credit.

On the 12th Okotook came, according to an appointment previously made, with a sledge and six dogs, to give me a ride to the huts, bringing with him his son Sioutkuk, who, with ourselves, made up a weight of near four hundred pounds upon the sledge. After being upset twice, and stopping at east ten times, notwithstanding the incessant bul-

lying of Okotook, and, as it seemed to me, more bodily labour on his part to steer us clear of accidents than if he had walked the whole way, we at length arrived at the huts, a distance of two miles, in five-and-twenty minutes. Of this equipment and their usual modes of travelling, I shall have occasion to speak more fully in another place.

I found that several fresh alterations had been made in the huts since my last visit, all, however, of the same kind, and having in view the same object as those last described. In these alterations they seem to consult the convenience of the moment, and to do it all by such unanimous consent, that no consultation or difference of opinion ever appears to exist about it. So much snowdrift had now collected about the huts, that their external appearance was as much altered as that of the interior, and it was difficult to trace any resemblance to the original village, or even to perceive its present limits. The snow was now as high as the roofs on every side, so that one might walk completely over them, and, but for the round plates of ice composing the windows, without suspecting the little hive of human beings that was comfortably established below. This, however, was not always done with impunity, when the thawing within had too much weakened the roofs, in which case a leg sometimes made its way through, and discovered in what parts repairs were become necessary. The natives were at this time extremely well furnished with seals' flesh for food and oil for their lamps, and all they would accept from us (except meat, which we could not afford to give) was water, and this they swallowed in such quantities whenever

they came to the ships, that it was impossible to furnish them with half as much as they desired.

We had before this time communicated to Ayoket and his countrymen our intention of sending a party of our people to the northward in the spring; and Captain Lyon had displayed to him all the charms of a brightly-polished brass kettle, of greater magnitude than had, perhaps, ever entered into an Esquimaux imagination, as an inducement, among various others, for him to accompany the Kabloonas in their excursion. The prospect of such riches was a temptation almost irresistible; but enterprise is not the genius of an Esquimaux; and Ayoket, we soon began to perceive, had no fancy for the proposed trip, which all his friends persisted in saying could never be accomplished. This was evidently to be attributed, in no small degree, to jealousy of any one individual among them being thus selected; and the brass kettle was speedily the means of increasing the distance to "Iligliuk's country" from sixteen to twenty-four days' journey. We had long, indeed, observed that this feeling of jealousy was easily excited among these people; but, what is extraordinary, it never displayed itself (as is most usual) among themselves, but was entirely vented upon us, who were, though innocently, the authors of it. As an instance of this, a man of the name of *Karrëtok* refused to take from me a strong and useful pair of scissors as a present, because, as he did not hesitate to assure me, I had given Okotook a pike, which was *more* valuable. To show him that this temper was not likely to produce anything to his advantage, I took back the scissors, and, having sent him away, went to my

dinner. Going accidentally on deck an hour afterward, I found Karretok still on board, who, having had time to reflect on his folly, now came up to me with a smiling face, and begged hard for the scissors, which, of course, he did not get. Many similar instances occurred, both to Captain Lyon and myself.

To this discouragement on the part of his friends, was added, on that of Ayoket, the same wavering and inconstant disposition which most other savages possess, rendering it impossible to place any dependance on his promises and intentions for two hours together. Indeed, the more our scheme was pressed upon his attention, and the more he saw of the actual preparations for the journey, the less doubtful his intentions became; and arrangements were therefore made for completing the party without him. For the reasons now given, it was equally impossible even to direct the attention of the Esquimaux, with any hope of success, to our scheme of their conveying letters to the Hudson's Bay settlements.

Notwithstanding the inclemency of the weather, some of the Esquimaux had, by the foot and sledge marks, found their way to the ships on the morning of the 16th, assuring us, as we found to be too true, that, in consequence of the gale, which prevented their going out for seals, they had not any food, nor a single lamp alight in the village. In the course of the following day, we had farther proofs of the wretchedness which these poor people were enduring at the huts; for, though the weather was little better than before, above forty men and women, besides some children, came down

to the ships, and begged with more than their usual earnestness for something to eat. It now once more became an act of humanity, and consequently of duty, to supply them as well as we were able; and all were admitted to partake of as much bread-dust as they could eat, besides a quantity which they took away with them. It had been long since Okotook and Iligliuk cared to accept this kind of food from us, partly because our respect for the latter generally ensured them something better, and partly because, of late, they had procured plenty of seals; to-day, however, they devoured it eagerly, and seemed very well satisfied to take their share with the others. When the usual time of departure came, they all discovered a wish to remain on board; but, as we could not find lodgings for the whole tribe, they were obliged very reluctantly to return. *Nannow*, a fine, quiet young man, whose native country is near Chesterfield Inlet, and who, having only a sister here, used to live with Okotook, begged very hard to remain on board; but, as I did not like to give the preference to one in particular, he also took his leave.

On the 18th, almost every man from the huts was out seal-hunting, and three or four, as the women informed us, had gone to a considerable distance for walrus, and with the intention of remaining out for the night in a snow hut. While the men were thus employed, their wives did not fail to use their endeavours also to procure food; and I believe that every female belonging to the village, without a single exception, made her appearance at the ships to-day, and was supplied with a proportion of bread-dust for her family. It

was pleasing to observe that they were always punctual in returning the buckets and bags which we lent them for carrying out their provisions.

The endeavours we had lately been making to gain from the Esquimaux some knowledge of the geographical features of the land to the northward, had at length been crowned with greater success than we had anticipated, and some information of a very gratifying and interesting nature thus obtained. I shall here, therefore, give some account of that information, and of the progressive steps by which it was communicated, which may, at the same time, serve to show the kind and degree of dependance that is to be placed on geographical notices thus obtained.

The first attempt made in this way was by placing several sheets of paper before Iligliuk, and roughly skimming on a large scale an outline of the land about the Bay and Lyon Inlet, and terminating at our present winter-quarters. Iligliuk was not long in comprehending what we desired, and with the pencil continued the outline, making the land trend, as we supposed, to the northeastward, and giving the names of the principal places as we proceeded. The scale being large, it was necessary, when she came to the end of one piece of paper, to tack on another, till at length she had filled ten or twelve sheets, and had completely lost the sight of Winter Island (called *Ne-yūning-Eit-dūā*) at the other end of the table. The idea entertained from this first attempt was, that we should find the coast indented by several inlets, and in some parts much loaded with ice, especially at one strait to the northward of her native island

Amitioke, which seemed to lead in a direction very much to the westward.

Within a week after this, several other charts were drawn by the natives in a similar way, principally by the desire of Captain Lyon and Mr. Griffiths, who took great pains to acquire information of this nature, and sent me copies of these productions. The coast was here delineated as before, on a very large scale, but much more in detail, many more islands, bays, and names being inserted. It was observable, however, that no two charts much resembled each other, and that the greater number of them still less resembled the truth in those parts of the coast with which we were well acquainted.

In the morning the Esquimaux had been observed in motion at the huts; and several sledges, with many dogs and heavily laden, went off to the westward. On going out to the village, we found only a few of the people had quitted their late habitation, and with them every article of their property, and none gone over the ice, we knew not where, in quest of more abundant food. The wretched appearance which the interior of the huts now presented baffles all description. In each of the larger ones some of the apartments were either wholly or in part deserted, the very snow which composed the beds and fireplaces having been turned up, that no article might be left behind. Even the bare walls, whose original colour was scarcely perceptible for lampblack, blood, and other filth, were not left perfect, large holes having been made in the sides and roofs for the convenience of handing out the goods and chattels. The sight of a

deserted habitation is at all times calculated to excite in the mind a sensation of dreariness and desolation, especially when we have lately seen it filled with cheerful inhabitants; but the feeling is heightened rather than diminished when a small portion of these inhabitants remain behind to endure the wretchedness which such a scene exhibits. This was now the case at the village, where, though the remaining tenants of each hut had combined to occupy one of the apartments, a great part of the bed-places were still bare, and the wind and drift blowing in through the holes which they had not yet taken the trouble to stop up. The old man Hikkeiera and his wife occupied a hut by themselves, without any lamp, or a single ounce of meat belonging to them; while three small skins, on which the former was lying, were all that they possessed in the way of blankets. Upon the whole, I never beheld a more miserable spectacle, and it seemed a charity to hope that a violent and constant cough, with which the old man was afflicted, would speedily combine with his age and infirmities to release him from his present sufferings. Yet, in the midst of all this, he was cheerful, nor was there a gloomy countenance to be seen at the village. Almost all the men were out; and some of them had been led so far to sea upon the floating and detached masses of ice in pursuit of walruses, that Captain Lyon, who observed their situation from the ships, had it in contemplation, in the course of the evening, to launch one of the small boats to go to their assistance. They seemed, however, to entertain no apprehensions themselves, from a confidence, perhaps, that the south-

east wind might be depended upon for keeping the ice close home upon the shore. It is certain, notwithstanding, that no degree of precaution, nor any knowledge of the winds and tides, can render this otherwise than a most perilous mode of obtaining subsistence; and it was impossible, therefore, not to admire the fearlessness as well as dexterity with which the Esquimaux invariably pursued it.

Having distributed some bread-dust among the women, we told old Illumea and her daughter Togolat that we proposed taking up our lodging in their hut for the night. It is a remarkable trait in the character of these people, that they always thank you heartily for this, as well as for eating any of their meat; but board and lodging may be given to *them* without receiving the slightest acknowledgment either in word or deed. As it was late before the men returned, I asked Togolat to get the rest of the women to perform some of their games, with the hope of seeing something that was new. I had scarcely time to make the proposal when she darted out of the hut, and quickly brought every female that was left at the village, not excepting even the oldest of them, who joined in the performance with the same alacrity as the rest. I could, however, only persuade them to go through a tedious song we often before heard, which was now, indeed, somewhat modified by their insisting on our taking our turns in the performance, all which did not fail to create among them never-ceasing merriment and laughter. Neither their want of food and fuel, nor the uncertain prospect of obtaining any that night, was sufficient to deprive these poor creatures of that cheerfulness and

good-humour which it seems at all times their peculiar happiness to enjoy.

The night proved very thick, with small snow, and as disagreeable and dangerous for people adrift upon floating ice as can well be imagined. If the women, however, gave their husbands a thought, or spoke of them to us, it was only to express a very sincere hope that some good news might shortly arrive of their success. Our singing party had not long been broken up, when it was suddenly announced by one of the children, the usual heralds on such occasions, that the men had killed something on the ice. The only two men who were at home instantly scrambled on their outer jackets, harnessed their dogs, and set off to assist their companions in bringing home the game, while the women remained for an hour in anxious suspense as to the extent of their husbands' success. At length one of the men arrived with the positive intelligence of two walruses having been taken, and brought with him a portion of these animals as large as he could drag over the snow. If the women were only cheerful before, they were now absolutely frantic. A general shout of joy instantly re-echoed through the village; they ran into each other's huts to communicate the welcome intelligence, and actually hugged one another in an ecstasy of delight by way of congratulation. One of them, *Arnalōōā*, a pretty young woman of nineteen or twenty, knowing that a dog belonging to her husband was still at the huts, and that there was no man to take him down on the ice, ran out instantly to perform that office; and with a hardihood not to be surpassed by any of the men, re-

turned, after two hours' absence, with her load of walrus flesh, and without even the hood thrown over her head to shelter her from the inclemency of the weather.

When the first burst of joy had at length subsided, the women crept, one by one, into the apartment where the first portion of the seahorses had been conveyed, which is always that of one of the men immediately concerned in the killing of them. Here they obtained blubber enough to set all their lamps alight, besides a few scraps of meat for their children and themselves. From this time, which was nine o'clock, till past midnight, fresh cargoes were continually arriving; the principal part being brought in by the dogs, and the rest by the men, who, tying the thong which held it round their waist, dragged in each his separate portion. Before the whole was brought in, however, some of them went out three times to the scene of action, though the distance was a mile and a half.

Every lamp now swimming with oil, the huts exhibited a blaze of light, and never was there a scene of more joyous festivity than while the operation of cutting up the walruses continued. I took the opportunity, which their present good-humour afforded, to obtain a perfect head and tusks of one of these animals, which we had not been able to do before; and, indeed, so much were their hearts opened by the scene of abundance before them, that I believe they would have given us anything we asked for. This disposition was considerably increased also by their taking into their heads that their success was in some way or other connected with, or even owing to, our having taken up our night's lodging at the huts.

After viewing all this festivity for some time, I felt disposed to rest; and, wrapping myself up in my fur coat, lay down on one of the beds which Illumea had given up for our accommodation, as well as her *kēipik*, or large deerskin blanket, which she rolled up for my pillow. The poor old woman herself sat up by her lamp, and in that posture seemed perfectly well satisfied to doze away the night. The singularity of my night's lodging made me awake several times, when I always found some of the Esquimaux eating, though, after we lay down, they kept quite quiet for fear of disturbing us. Mr. Halse, who was still more wakeful, told me that some of them were incessantly employed in this manner for more than three hours. Indeed, the quantity of meat that thus they contrive to get rid of is almost beyond belief.

Having at length enjoyed a sound nap, I found on waking, about five o'clock, that the men were already up, and had gone out to renew their labours on the ice, so that several of them could not have rested more than two or three hours. This circumstance served to correct a notion we had entertained, that, when once abundantly supplied with food, they took no pains to obtain more till want began again to stare them in the face. It was now more pleasing to be assured that, even in the midst of plenty, they did not indolently give themselves up to repose, but were willing to take advantage of every favourable opportunity to increase their store. It is certain, indeed, that, were these people more provident (or, in other words, less gluttonous, for they do not waste much), they might never know what it is to want provisions, even during the most

nclement part of the year. The state of the ice was to-day very unfavourable for their purpose, being broken into pieces so small that they could scarcely venture to walk upon it.

The morning of the 5th proved favourable for a journey I had in contemplation to the distant huts, to which Iligliuk, who had come to Winter Island the day before, promised to be my guide. At six o'clock I set out, accompanied by Mr. Bushnan and two of the men, carrying with us a supply of bread-dust, besides our own provisions and blankets. As the distance was too great for her son Sioutkuk to walk, we were uncertain, till the moment of setting out, how this was to be managed, there being no sledge at hand for the purpose. We found, however, that a man, whom we had observed for some time at work among the hummocks of ice upon the beach, had been employed in cutting out of that abundant material a neat and serviceable little sledge, hollowed like a bowl or tray, out of a solid block, and smoothly rounded at the bottom. The thong to which the dogs were attached was secured to a groove cut round its upper edge; and the young seal-catcher, seated in this simple vehicle, was dragged along with great convenience and comfort.

The ice over which we travelled was a level floe that had never suffered disturbance since its first formation in the autumn, and with not more than an inch and a half of snow upon it. The path being distinctly marked out by the people, sledges, and dogs that had before travelled upon it, one might, without any great stretch of the imagination, have almost fancied it a road leading over a level

and extensive heath towards a more civilized and substantial village than that which we were now approaching. Iligliuk walked as nimbly as the best of us : and, after two hours' and a half brisk travelling, we arrived at the huts, and were received by the women (for all the men were absent) with every expression of kindness and welcome. Each was desirous of affording us lodging, and we had speedily arranged matters so as to put them to the least possible inconvenience.

These huts, four in number, were, in the mode of their construction, exact counterparts of those at Winter Island on our first visit, but, being new and clean, presented a striking contrast with the latter, in their present disordered and filthy state. What gave a peculiarity, as well as beauty also, to the interior appearance of these habitations, was their being situated on the ice, which, being cleared of the snow, presented a flooring of that splendid blue which is, perhaps, one of the richest colours that nature affords. A seal or two having been lately procured, every lamp was now blazing, and every *ōōtkōseēk* smoking with a hot mess, which, together with the friendly reception we experienced, and a little warmth and fatigue from travelling, combined in conveying to our minds an idea of comfort which we could scarcely believe an Esquimaux hut capable of exciting.

On the arrival of the men, who came in towards evening with two seals as the reward of their labour, we were once more greeted and welcomed. *Arnaneelia*, in particular, who was a quiet, obliging, and even amiable man, was delighted to find my quarters were to be in his apartment, where *Anēēt*.

ka, his wife, a young woman of about twenty-three, had already arranged everything for my accommodation; and both these poor people now vied with each other in their attention to my comfort. The other two apartments of the same hut were occupied by Kaoongut and Okotook, with their respective wives and families; it being the constant custom of these people thus to unite in family groups whenever the nature of their habitations will allow it. Mr. Bushnan being established with Okotook, and the two men with Kaoongut, we were thus all comfortably lodged under the same roof.

Toolooak having been concerned in killing one of the seals just brought in, it fell to his mother's lot to dissect it, the *neitiek* being the only animal which the women are permitted to cut up. We had therefore an opportunity of seeing this filthy operation once more performed, and entirely by the old lady herself, who was soon up to her elbows in blood and oil. Before a knife is put into the animal, as it lies on its back, they pour a little water into its mouth, and touch each flipper and the middle of the belly with a little lamp-black and oil taken from the under part of the lamp. What benefit was expected from this preparatory ceremony we could not learn, but it was done with a degree of superstitious care and seriousness that bespoke its indispensable importance. The boys came eagerly into the hut as usual, and held out their foreheads for the old woman to stick the charms upon them; and it was not till now that we learned from Iligliuk the efficacy of this very useful custom. As soon as this dirty operation was at an end, during which the numerous by-standers amused them

selves in chewing the intestines of the seal, the strangers retired to their own huts, each bearing a small portion of the flesh and blubber, while our hosts enjoyed a hearty meal of boiled meat and hot gravy soup. Young Sioutkuk ate at least three pounds of solid meat in the first three hours after our arrival at the huts, besides a tolerable proportion of soup, all which his mother gave him whenever he asked it, without the smallest remark of any kind. We now found that they depended on catching seals alone for their subsistence, there being no walruses in this neighbourhood. As they were several miles from any open water, their mode of killing them was entirely confined to watching for the animals coming up in the holes they make through the ice.

In the course of the evening our conversation happened to turn on the Indians, a people whom none of these Esquimaux had ever seen; but with whose ferocity and decided hostility to their own nation they seemed to be well acquainted. They described, also, their peculiar manner of paddling their canoes, and were aware that they made use of the kind of show-shoes which we showed them. When I related to them, as well as I was able, the massacre of the Esquimaux recorded by Hearne, and gave them to understand that the Indians spared neither age nor sex, it seemed to chill them with horror, and I was almost sorry that I had told them the story.

April 11.—We were now glad to begin making some show of re-equipping the ships for sea; for though this was a business that might, if necessary have been very well accomplished in two or three

weeks, it was better to employ the men in occupations having an evident and determinate object, than in those less obviously useful ones to which it was necessary to resort during the winter. We therefore brought down some of the boats to the ships to repair, put up the forge on the ice, and built a snow house over it, and set about various other jobs, which made the neighbourhood of the ships assume a busy and bustling appearance.

I had to-day a visit from Okotook and Iligliuk, who, with their son, came in upon their sledge from the distant huts. Being desirous of entertaining them well, in return for their late hospitality, we provided abundance to eat, and showed them everything about the ship that we thought likely to amuse them. Of all the wonders they had ever seen on board, there was nothing which seemed to impress them so strongly with a sense of our superiority as the forge, and the work which the armourer performed with it. The welding of two pieces of iron especially excited their admiration, and I never saw Iligliuk express so much astonishment at anything before. Even in this her superior good sense was observable, for it was evident that the utility of what she saw going on was what forced itself upon her mind; and she watched every stroke of the hammer and each blast of the bellows with extreme eagerness, while numbers of the other Esquimaux looked stupidly on, without expressing the smallest curiosity or interest in the operation, except by desiring to have some spear-heads fashioned out by this means. Iligliuk was always very much entertained also by pictures having any relation to the Esquimaux in other parts, and derived great enter-

tainment from a description of any difference in their clothes, utensils, or weapons. Of these the sail in an Esquimaux boat seemed particularly to attract her notice; but, in general, she had no inclination to admit the inferiority of her own tribe to any other. She was always extremely inquisitive about her own sex, whether *Innuées** or *Kabloonas*, listening with eager attention to any account of their dress or occupations, and in common, I believe, with all the rest of the Esquimaux, wondered how we came to travel to their country without our wives. The assurance that many among us were not married, they received with evident incredulity.

On the 13th, a number of the natives from the Winter Island huts formed a second detachment, and set off for the other village. They carried their goods on sledges as before, even to the exclusion of poor old Hikkeiera, whom some of our gentlemen overtook crawling after his companions with a stick, and who, but for their remonstrances, might that day have finished his pilgrimage on earth. They insisted, however, on his being placed on one of the sledges, which was accordingly complied with; but, on their arrival at the village, his companions left him lying there till their huts were built. All the Esquimaux pressed our gentlemen very strongly to sleep at the village; but one of the women gave Mr. Bird an indifferent specimen of her hospitality, by picking his pocket of a handkerchief, though not so dexterously as to escape detection. The few who visited the ships to-day told us that they were all about to leave Winter Island on the morrow; and Okotook and Iligliuk, who had

* Esquimaux.

not yet returned, came on board among the rest to pay a last visit. I gave the former a large piece of oak wood for a bow and two arrows, a second iron spear-head, and various other articles, to add to the stock of wealth he had from time to time received from us. As these good folks found themselves perfectly at home in my cabin, I was usually in the habit of continuing my occupations when they were there, without being disturbed by them. Being now engaged in writing, my attention was unexpectedly directed towards them by Iligliuk's suddenly starting from her seat, moving quickly towards the door, and, without saying a word either to me or any of the officers present, hastening directly on deck. Okotook, indeed, as he followed her out of the cabin, turned round and said "Good-by," of which expression he had learned the meaning, and then, without giving us time to return the compliment, they both hurried out of the ship, leaving us in some astonishment at this singular leaving-taking, which we then supposed to be the last.

We could now begin to perceive, from day to day, that the snow on shore was diminishing. How slow this process was, may, however, be understood by the fact, that it was necessary to make a mark on some stone to be assured it was thus receding. Our snow-wall had indeed settled down nearly a foot by the gradual diminution of the blocks of which it was composed; but the thawing had been artificially assisted by the black cloth hung against it. Five ravens were seen to-day, all quite black; four of them were flying in pairs.

On the 22d a number of the Esquimaux came to the ships with a sledge, and among the rest my

late host Arnaneelia and his wife, the latter having the front of her jacket adorned with numberless strings of beads that we had given her, arranged with exact uniformity, to which, in the fashion of their dresses and the disposition of their ornaments, these people always rigidly adhere. Aneekta had scarcely reached the cabin when she produced a little ivory comb and a pair of handsome mittens, which she presented to Mr. Edwards, at the same time thanking him for the attention he had shown her on an occasion when she had been taken in a fit alongside the Fury, from which she was recovered by bleeding. This expression of gratitude, in which she was heartily joined by her husband, was extremely gratifying to us; as it served, in some degree, to redeem these people in our estimation from the imputation of ingratitude, which is, indeed, one of their greatest failings. They stated having seen two reindeer the preceding day going over the ice to the main land. They spoke of this with great pleasure: and we were ourselves not displeased with the prospect of changing our diet for a little venison. They now became extremely urgent with us for wood to make bows and arrows, most of their own having, with the childishness that accompanied their first barterings, been parted with to our officers and men. Having several broken oars which could be turned to little or no account on board, we were enabled, at a small expense of useful stores, to furnish them very abundantly with wood for this purpose. Arnaneelia also informed us that Okotook, who had been unwell for some days, was now much worse, and seemed, as he described it, to be labouring under a violent pulmona-

ry complaint. On the circumstance being mentioned to Mr. Skeoch, he kindly volunteered to go to the village, and accordingly took his seat on the sledge, accompanied also by Mr. Sherer. They carried with them a quantity of bread-dust to be distributed among the Esquimaux at the huts, their success in seal-catching having lately been indifferent.

A number of Esquimaux came to the ships on the 25th, notwithstanding a strong breeze from the S. W. b. W., with a considerable snowdrift. From these people we learned that Okotook's complaint had increased since Mr. Skeoch's visit, and that he was now extremely ill. Mr. Bushnan immediately offered to go to the huts for the purpose of bringing him on board, where, by Mr. Edwards's kind attentions, and the enjoyment of warmth and dryness, we hoped soon to recover him. Mr. Bushnan, therefore, without waiting for the return of the sledges, set out for the village at an early hour in the forenoon, accompanied by the sergeant of marines. At eleven at night our party returned on board, bringing on a sledge Okotook, Iligliuk, and their son. That Iligliuk would accompany her husband, I, of course, took for granted and wished; but as the boy could do us no good, and was, moreover, a desperate eater, I had desired Mr. Bushnan to try whether a slight objection to his being of the party would induce Okotook to leave him with his other relations. This he had cautiously done; but, the instant the proposal was made, Okotook, without any remark, began to take off the clothes he had himself just dressed in to set out. No farther objection being made, however, he again prepared

for the journey, Iligliuk assisting him with the most attentive solicitude. Before the invalid was suffered to leave his apartment, some of the by-standers sent for Ewerat, now better known to our people by the undignified appellation of the "conjuror." Ewerat, on this occasion, maintained a degree of gravity and reserve calculated to inspire somewhat more respect than we had hitherto been disposed to entertain for him in that capacity. Placing himself at the door of the apartment opposite Okotook, who was still seated on the bed, he held both his thumbs in his mouth, keeping up a silent but solemn converse with his *toorngow*,* the object of which was, as Mr. Bushnan presently afterward found, to inquire into the efficacy and propriety of the sick man's removal. Presently he began to utter a variety of confused and inarticulate sounds; and it being at length understood that a favourable answer had been given, Okotook was carried out and placed on the sledge, Ewerat still mumbling his thumbs and muttering his incantations as before. When the party took their leave, there were a great many doleful faces among those that remained behind; and Mr. Bushnan said that the whole scene more resembled the preparations for a funeral than the mere removal of a sick man. When the sledge moved on, Ewerat was the only one who had not a "Good-by!" ready, he being as seriously engaged as at first, and continuing so as long as our people could observe him.

Okotook was extremely ill on his arrival, having been three hours on the sledge, and Iligliuk, who, as Mr. Bushnan told me, had scarcely taken her

* Familiar spirit.

eyes off her husband's face the whole time, seemed almost worn out with fatigue and anxiety. A bed of wolf skins being prepared for him, Okotook was soon placed upon it, and such remedies applied as Mr. Edwards judged necessary for his complaint, which was inflammation of the lungs to a degree that, if left to itself, or even to Ewerat, would soon have proved fatal, or, at best, have terminated in consumption.

On the 26th, a southeast wind brought a heavy fall of snow in flakes much larger than before. The thermometers on the ice at noon stood at 23° in both aspects. We heard from Illumea, who came to see her son Okotook, that a part of the natives had gone still farther to the westward upon the ice, one spot not affording sufficient subsistence for the whole of them. Our patient felt much the better for a comfortable night's lodging, and now submitted with great patience to the application of a blister, though I believe his confidence in our mode of cure was afterward shaken for a time by the pain which it occasioned. Both he and Iliglik, however, seemed very sensibly to feel the comforts and advantages of their present quarters; and a "coyenna" (thanks) now and then fell from their lips. Nothing could exceed the attention which the latter paid to her husband; she kept her eyes almost constantly fixed upon him, and seemed anxious to anticipate every want.

One of Okotook's brothers had arrived from the huts, bringing with him some walrus-flesh to tempt the appetite of the invalid, whose stomach, however, very fortunately for his complaint, was not disposed to this kind of delicacy. When his brother

was about to return, Okotook took it into his head to send his son away with him, probably because he heard they had the day before killed two seals, which afforded better feeding than we had to give him; be this as it may, we were not sorry that he went, and the boy himself seemed no less pleased; for, without playfellows or amusement of any kind, his time hung very heavily on his hands while he remained on board. It was amusing to see Okotook take a dose of physic for the first time in his life to-day. He knew its taste was not pleasant, but this was certainly not all that he dreaded; for, before he put the cup to his lips with one hand, he held on by his wife with the other, and she by him with both hers, as though they expected an explosion, or some such catastrophe, as the immediate effect of the potion; nor did he venture to relinquish his hold till the taste began to leave his mouth. The quantity of water which he drank in the course of the four-and-twenty hours is beyond conception; and the cabin fire could scarcely, by the melting of snow, furnish enough for their consumption. These people are extremely particular as to the purity of the water they drink. Some that had been melted in our steamer, and which I thought very good, neither of them would touch, or, at least, always spat out again. If the water was much above the temperature of 32° , they also disliked it, and immediately put snow into it to cool it down. Iligliuk, who came on board with one side of her hair loose, loosened the other also to-day, in consequence of her fancying Okotook worse, though it was only the annoyance of the blister that made him uneasy; for even in this sequestered cor-

ner of the globe dishevelled locks bespeak mourning. It was not, however, with her the mere semblance of grief, for she was really much distressed throughout the day, all our endeavours not availing to make her understand how one pain was to be removed by inflicting another.

Captain Lyon being desirous of having some little clothes made as models of the Esquimaux costume, and thinking Iligliuk's present leisure afforded her a good opportunity of making them, had yesterday obtained her promise that she would do so. Okotook being now very much better, and she having herself resumed her usual gayety in consequence, I pressed her to commence her work, and placed the skins before her, when she said that she could not do them here, as she had no needles. These being supplied her, she now complained of having no *tōōktōo-e-wāllōo* (reindeer sinew), their usual thread. This difficulty, unfortunately for Iligliuk's credit, was as easily overcome as the other; and when scissors, pattern clothes, and all the other requisites were laid before her, she was at length driven to the excuse that Okotook's illness would not permit her to do it. Seeing us half laughing at the absurdity of these excuses, and half angry at the selfish indolence which prompted them, she at last flatly asserted that Okotook desired her not to work, which, though we knew it to be a falsehood, the latter did not deny. We then supposed that some superstition might be at the bottom of this; but having, a little while after, by way of experiment, thrown Iligliuk some loose beads upon the table, she eagerly employed herself for half an hour in stringing them that not one might be lost;

which proved that, where her own gratification or interest were concerned, Okotook's illness was not suffered to interfere. This anecdote shows, in a strong light, that deep-rooted selfishness, which, in numberless instances, notwithstanding the superiority of Iligliuk's understanding, detracted from the amiability of her disposition. The fact was, that she did not feel inclined so far to exert herself as to comply with Captain Lyon's request; and the slight degree of gratitude and proper feeling which was requisite to overcome that disinclination was altogether wanting.

I have related this anecdote just as it occurred, with the hope of showing the true disposition of these people, and not with a view of unduly depreciating the character of our friend Iligliuk. I am, however, compelled to acknowledge, that, in proportion as the superior understanding of this extraordinary woman became more and more developed, her head (for what female head is indifferent to praise?) began to be turned with the general attention and numberless presents she received. The superior decency and even modesty of her behaviour had combined, with her intellectual qualities, to raise her, in our estimation, far above her companions; and I often heard others express what I could not but agree in, that for Iligliuk alone, of all the Esquimaux women, that kind of respect could be entertained, which modesty in a female never fails to command in our sex. Thus regarded, she had always been freely admitted into the ships, the quartermasters at the gangway never thinking of refusing entrance to the "wise woman," as they called her. Whenever any explanation

was necessary between the Esquimaux and us, Iligliuk was sent for as an interpreter; information was chiefly obtained through her, and she thus found herself rising into a degree of consequence to which, but for us, she could never have attained. Notwithstanding a more than ordinary share of good sense on her part, it will not, therefore, be wondered at if she became giddy with her exaltation, assuming certain airs which, though infinitely diversified in their operation according to circumstances, perhaps universally attend a too sudden accession of good fortune in every child of Adam from the equator to the poles. The consequence was, that Iligliuk was soon spoiled; considered her admission into the ships and most of the cabins no longer as an indulgence, but a right; ceased to return the slightest acknowledgment for any kindness or presents; became listless and inattentive in unravelling the meaning of our questions, and careless whether her answers conveyed the information we desired. In short, Iligliuk in February and Iligliuk in April were confessedly very different persons; and it was at last amusing to recollect, though not very easy to persuade one's self, that the woman who now sat demurely in a chair, so confidently expecting the notice of those around her, and she who had at first, with eager and wild delight, assisted in cutting snow for the building of a hut, and with the hope of obtaining a single needle, were actually one and the same individual.

Togolat came down to the ships to-day to see her brother Okotook; she was accompanied by Arnalooa, and on their arrival they were both sent for into the cabin. We observed, however, that

they required an unusual degree of sollicitation to make them go near Okotook, or even to the side of the cabin, where he lay concealed by a screen; and, after all, they remained in the opposite corner next the door; and, having talked freely to the invalid for some time, took their leave without seeing him. In the evening, after they were gone, we found that this unfortunate though well-intended visit was occasioning great distress to Okotook, who talked for two hours almost incessantly about "Arnalooa's having seen him," which, it seems, ought not to have been the case. What misfortune was to be apprehended in consequence of this event we could not learn; but he spoke of it in a kind of agony, and was evidently labouring under the influence of some powerful though absurd superstition respecting it. Towards night he suffered a dreadful bleeding at the nose, followed by much sickness at the stomach, which, together with the phantom of Arnalooa, that still haunted his imagination, combined to make him extremely unwell for some hours. The next day, however, he was free from complaint of any kind, and began once more to put on a smiling countenance.

The caulking of our bows being now completed, the ships were released from the ice by sawing round them; an operation which caused them to rise in the water six inches and a half, in consequence of the increased buoyancy occasioned by the winter's expenditure.

CHAPTER IX.

Increased Extent of open Water in the Offing.—A Travelling Party despatched to the Northward.—Unsuccessful attempt to raise Vegetables on Shore.—Decease of James Pringle.—A Party of Esquimaux build Huts near the Ships.—Return of the Travellers, and account of their Journey.—First Appearance of the Plants.—Birds become numerous.—Commence cutting a Canal through the Ice for liberating the Ships.—Illness and Decease of John Reid and William Souther.—Breaking up of the Ice in the Bay.—Account of Winter Island.—Abstract of Observations made there.

As there was an increased extent of open water in the offing, and the weather being now, to all appearance, tolerably settled, I determined on sending away a travelling party under Captain Lyon. It consisted of Lieutenant Palmer, five seamen, and three marines, the whole being victualled for twenty days, and furnished with a tent, fuel, and every other convenience of which such a journey would admit. The baggage was placed on light sledges, resembling those used by Captain Franklin on his late journey to the shores of the Polar Sea, made out of staves shaved thin, six feet eight inches long, fourteen inches broad, and turned up before. Being secured entirely with thongs of hide sunk by grooves into the wood to keep them from wearing, they were perfectly flexible, so as to be in no danger of breaking on uneven ground. Each individual of the party was furnished with one of these, which also served to sleep and sit upon; the weight dragged by each of the men being about one hun-

dred and twenty pounds, and that of the officers from ninety to ninety-five. Each person had also a pair of snow-shoes, a deerskin jacket and boots for sleeping in, and another pair of boots of watertight sealskin.

The general tenour of Captain Lyon's instructions was, "after crossing to the continent, to proceed along that coast to the northward, carefully examining any bend or inlet he might meet with, so as to leave no doubt, if possible, of its actual extent and communications, thereby preventing the necessity of the ships entering it on their arrival there." I added, also, the necessary directions for remarking everything of interest relating to the tides, and the natural productions of the country; and I limited Captain Lyon to the end of the month in returning, to avoid the possibility of detaining the expedition.

Their preparations being completed, our travellers left the ships under a salute of three cheers from both the crews, and accompanied by a large party of officers and men to assist them for the first few hours. A day or two after their departure, a supply of provisions was lodged on shore, according to a plan previously agreed on, in case of our being forced out to sea with the ice before their return. Arrangements were also made for putting an officer and two men on shore, as a guard to this as well as to the clock, tent, or any other articles that might be left behind, in the event of an occurrence of this nature.

In the course of the forenoon of the 15th, a message to our medical gentlemen announced the fall of James Pringle, one of the seamen of the *Hecla*,

from her mizen-topmast-head to the deck ; and in a few minutes after I was much shocked in receiving Lieutenant Hoppner's report of his death, no sign of life having indeed appeared in him from the first moment after his fall. On examination, it was found that the base of the scull was fractured, and the neck also dislocated. A grave was directed to be dug near the observatory, and arrangements were made for the funeral taking place on the following Sunday.

On the 16th, Ewerat, with his wife and family, arrived at the ships, bringing with them all their goods and chattels, and with the intention of taking up their abode upon the ice near us. They accordingly built their hut about a hundred yards from the Fury's stern, but whether with the view of living upon us, or the seals that frequent the bay, we were at first at a loss to conjecture. Ewerat's household consisted not only of his own family, but of Appokiuk and Itkamuk, the former of whom having no husband, and the latter no relative, they both seemed to be fairly "on the parish." Besides this establishment, a second, on a smaller scale, also made its appearance in our neighbourhood, consisting of a very little man, named *Koo-il-li-ti-uk*, nicknamed by the sailors "John Bull," and his pretty little wife *Arnalōōa*, whose zeal in bringing up her husband's share of the seahorses I have before described. These persons, being eight in number, had determined on travelling to Amitioke for the ensuing summer, influenced probably, in some degree, by the hope of falling in with us again, as they knew that we were going in that direction. Be this, however, as it may, it was soon

evident that they intended making the most of us while we remained neighbours; for, on the 17th, though the weather was favourable, and they had no food of their own, they made no effort to procure any, except from the ships, to which the women brought their *ootkooseeks* for bread-dust. Though I objected to encouraging this, and told them we should give them nothing if they did not also labour for themselves, they were all such favourites with our people that I believe they found it answer very well; contriving not only to get plenty of food, but also a number of useful presents. They made, indeed, some return for this, by the usual barter of mittens, of which our people were now furnished with an abundant supply.

(On the 19th, after an impressive sermon delivered by Mr. Fisher, the last mournful duties were performed over the remains of our deceased shipmate. Nothing worthy of notice occurred till the evening of the 21st, when, soon after eight o'clock, Captain Lyon and his party were seen on their return over the hills, and, being met by a number of the officers and men from the ships, arrived on board before ten, when I was happy to find our travellers in good health, excepting a little snow-blindness and "foot-foudering," of which they soon recovered. The result of this journey of Captain Lyon's served to excite very reasonable hopes that he had seen the northeastern extreme of the great peninsula, round which we entertained the most sanguine expectations of shortly finding the desired passage into the Polar Sea.

On the 23d, our neighbours the Esquimaux, who had long, by their own account, been setting off

for Amitioke, at length began in earnest to pack up for their departure. As soon as their preparations were finished, I sent for them all on board, and gave them one of their own sledges, of which they were much in want, for carrying their goods, a couple of boarding-pikes, some knives, and several tin canisters filled with bread-dust, for their journey. These presents had scarcely been made them, when we had reason to apprehend so sudden an influx of wealth might produce serious effects, especially upon the women, whose joy threw them into immoderate fits of laughter, almost amounting to hysterics, which were succeeded by a flood of tears. The men seemed thankful, though less noisy in the expression of their acknowledgments. As soon as some degree of composure was restored, we accompanied them to their baggage, which they had stowed on two of the small travelling sledges given them by Captain Lyon, but which they now shifted to their own. When all was ready, and some other valuable presents had been added to their stock by Captain Lyon, they proceeded to the northward, the women assisting to drag the sledge, for they had only one large dog and one puppy. On taking their departure, these good-humoured and ever-cheerful people greeted us with three cheers in the true Kabloona style, a mode of salutation they had observed once or twice among us, and frequently practised for their amusement and ours. On the 24th, we found they had only proceeded a few miles, as "John Bull" once more made his appearance on board, and returned to his companions in the evening. From this specimen of their travelling, of which we had, as yet,

little experience, we had great reason to hope that their days' journeys would be found but short ones, and that, therefore, our distance round the north-eastern point of the American continent was not very considerable. The snow fell softer, and more melting was going on to-day than on any before observed, though only a few black tips of the rocks were yet visible on shore. The animals now began to appear in greater numbers; for on the 25th, a flock of nearly two hundred long-tailed ducks were swimming about in the open water to the southeast of the point. Some of the Esquimaux who came from the nearest western village also reported having seen a great many reindeer; but they had not yet succeeded in killing any.

At the close of the month of May it was a matter of general observation, and, of course, of general regret, how few symptoms of thawing had yet appeared, either on shore or on the ice. Naturally pursuing our usual comparison with the circumstances of the former winter passed in these regions, it was impossible not to recollect that Melville Island had, on the same day two years before, advanced full as far as the country now before us in throwing off its winter covering. The parts of the land which were now the most bare were the smooth round tops of the hills, on which here and there occurred a little pool of water, from which, taking all together within half a mile round the ships, we should at this time have had great difficulty in filling half a tun. There were also on the lower lands, a few dark uncovered patches, looking, when viewed from the hills, like islets in an extensive sea. Vegetation seemed labouring to commence, and a

few tufts of the *saxifraga oppositifolia*, when closely examined, discovered some signs of life. A botanist, in short, might have considered vegetation as begun, but in the popular acceptance of the word it certainly had not. Such was the state of things on shore at the conclusion of the month of May. Upon the ice appearances were not more promising. Except in the immediate neighbourhood of the ships, where, from the constant trampling and the laying of various stores upon the ice, some heat had artificially been absorbed, it would have been difficult to point out in what respect any advances towards dissolution had been made upon the upper surface, where six or seven inches of snow yet remained in every part. Here again, without any undue partiality for our old winter-quarters, it was natural, as well as reasonable, to bear in mind, that before this time we had there experienced several hours of hard rain, than which nothing proves more effectual in dissolving the ice. The consequence was, that for the last week in May, at Melville Island, the surface of the ice had assumed quite a green appearance; while here it was still as white as a covering of snow could make it.

Under these circumstances I came to the determination, now that the ships were ready for sea, to try what could be effected towards their release, by sawing and cutting the ice; for it was vexatious to see open water daily in the offing, and not to be able to take advantage of it. Arrangements were therefore made for getting everything, except the tent and instruments, on board the next day, and for commencing this more laborious occupation on the following Monday.

On the 1st of June, having launched a boat at the mouth of the bay, I went to sound in that neighbourhood and along the eastern side of the island, preparatory to marking out the intended canal. A good deal of ice still remained attached to the land; but as far as we could distinguish to the N.N.E. there was a lane of clear water wide enough for the navigation of the ships.

On the morning of the 3d, at six A.M., both the ships' companies, under their respective officers, were set to work upon the ice. A line was accurately marked out from each of the Fury's quarters, where they were fifty feet apart, diverging to two hundred and fifty at the edge of the floe, the latter being distant from the ships two thousand and twenty feet, or just one third of a nautical mile. It was proposed to make a cut through the ice with the saws, along the two lines thus marked out, and then a transverse section here and there, the divergency of the sides being intended to facilitate the removal of the pieces thus detached by first pulling them out with strong purchases, and then floating them down the canal to the sea without. Nothing could exceed the alacrity with which this laborious work was undertaken, and continued daily from six in the morning till eight at night, with the intermission only of mealtimes: nor could anything be more lively and interesting than the scene which now presented itself to an observer on the southeast point. The day was beautifully clear, the sea open as far as the eye could stretch to the northward, and the "busy hum" of our people's voices could at times be heard mingling with the cheerful though fantastic songs wth which the Greenland sailors are accustomed at

once to beguile their labour, and to keep the necessary time in the action of sawing the ice. The whole prospect, together with the hopes and associations excited by it, was, to persons cooped up as we had been, exhilarating beyond conception.

In the course of the first week we had completed the two side cuts, and also two shorter ones in the space between the ships; making in all a length of two thousand three hundred feet on each side of the intended canal, the thickness of the ice being in general four feet, but in one or two places (where the junction of the sea-ice with the bay-floe occasioned some squeezing) above ten feet and a half, scarcely allowing our longest saws to work. Laborious as this part of the operation had been, we soon found it likely to prove the least troublesome of the whole; for, on endeavouring to pull out the pieces in the manner at first intended, every effort failed, till at length we were reduced to the necessity of cutting each block diagonally before it could be moved from its place. After a week's experience, we also learned that much time had been lost in completing the whole of the lateral cuts at once; for these, partly from frost, and partly by the closing together of the sides of the canal, all required sawing a second, and in some places even a third time. It was surprising, also, to see how powerful a resistance was occasioned by the "sludge" produced in sawing, or, as the sailors called it, the "sawdust," continuing in the cut, and appearing to act, like oil interposed between two plates of glass, in keeping the masses united. In some cases, also, a saw was squeezed so tight by the pressure of the ice in the cut, that it became necessary to

enter a second in order to release it, by sawing out a circular plug of ice completely round it. Fatiguing as this work proved to the men, I directed it to be continued to-day, the sea remaining so open on the outside as to give every encouragement to our exertions.

One of our people, in walking over the island, met with a swan's nest, which Captain Lyon went out to see, and made a drawing of it. It was built of moss-peat, being no less than five feet ten inches in length, four feet nine inches wide, and two feet deep. The hole of entrance in the top was eighteen inches wide. Two eggs, each weighing about eight ounces, were found in the nest, in which the old birds were also sitting at first, but too wild to be approached. The eggs are of a cream or brownish white colour, in some parts a little clouded by a darker tinge. The female subsequently laid a third egg, and soon afterward both birds appeared to have wholly deserted the nest.

In the second week our progress with the canal had been considerable, it being now completed with in two hundred yards of the Fury's stern.

At the conclusion of the day's labour on the 19th, we had every prospect of getting to sea in forty-eight hours more; but, early on the following morning, when the ebb or northeasterly tide had made, and was assisted by a breeze from the southward, the whole body of sea-ice came forcibly in contact with the bay-floe, which was now so weakened by our cutting as to split the whole way from the edge up to the Hecla's stern, a little to the westward of the canal, the latter being almost immediately closed with a considerable crush, but without affecting the

ships which lay beyond it. The closing of our artificial canal had the effect of partially opening a natural one at the place where the ice had just been detached ; but, as this was incomplete, coming gradually up to a point astern of the Hecla, we were at a loss to know on which of the two our labour would best be employed. An attempt was first made by four strong purchases, stretched from side to side across the new crack, to pull the parts together again, and thus to leave our original canal *in statu quo*. All our power, however, being insufficient to accomplish this, we commenced with the saws upon the upper part of the crack, with the intention of widening it sufficiently for the passage of the ships. In this work we had made considerable progress, when, towards evening, it was perceived that *this* was now closing, and our former canal reopening by the action of the wind and tide. Relinquishing our last attempt, therefore, we lost no time in floating some heavy pieces of ice into the canal, to serve as wedges for keeping the sides apart, in case of any fresh pressure from without again disposing them to close.

At two A.M. on the 21st, the piece of the floe which formed the separation between the two canals drifted bodily outward, as far as the rocks at the mouth of the bay and the ice that lay upon them would permit, taking with it a heavy-grounded mass that lay near the Hecla, and on which it had before been turning as on a pile or pivot ; shortly after a second mass on the eastern side of the canal broke off, the separation taking place upon the line where the ice had been weakened by the sand we had laid upon it. Our work was now at an end, and we

had only to wait for a northerly or westerly wind to release us from our present "besetment," for, in fact, it was now nothing more. Directions were therefore given for closely watching the motion of the ice, both from the ships as well as by regular visits to the shore at the end of every watch.

It now becomes my painful duty to turn from these busy occupations, where animation, cheerfulness, and hope prevailed, to the sad and solemn scenes of sickness and death; for with both of these did it please the Almighty to visit us at this period! William Souter, quartermaster of the *Fury*, who, in the early part of this week, had complained of a slight sickness at the stomach, and, having been quite relieved, was, in consequence, discharged to duty, was again, on the morning of the 21st, affected in a similar manner while on deck. On the 24th, his alarming symptoms had so much subsided, that increasing hopes were entertained of his continuing to do well. These flattering appearances, however, received a sudden check about noon on the 25th, after which time he began rapidly, though gradually, to droop, and between six and seven in the evening breathed his last.

The impossibility of removing Souter from the sick bay, after the last alarming change took place, rendered his death, or, rather, the convulsive struggles which for some hours preceded that event, a dreadful trial to poor Reid, whose state had for some time past been scarcely better, the difficulty in his breathing having increased to a most distressing degree. When Souter was dying, Reid remarked that he should not be long after him; and on the 26th, when Mr. Fisher had attended and prayed

with him, he said that he should go at one bell (half past six), and then enumerated all his clothes to one of the men, who, at his request, wrote them down for him. After four o'clock he did not speak, and, gradually sinking, expired at the time he had mentioned.

On the 28th, the remains of our deceased shipmates were committed to the earth, with every solemnity that so mournful an occasion demanded. They were interred in one grave, on a rising ground a few hundred yards from the sea to the northeastward of the ships. A handsome tomb of stone and mortar was built over the spot, having at one end a stone let in, with the usual information engraved on it. The sides were plastered with a kind of viscous clay found in one of the ponds, and the top covered with tufts of the purple saxifrage. The duties of the ships now permitting it, Captain Lyon employed his men in building a similar tomb over the grave of Pringle.

1871
The following is a list of the names of the persons who have been admitted to the membership of the Society since the last meeting of the Council, and the names of those who have been expelled from the Society since the last meeting of the Council.

Admitted to membership since the last meeting of the Council:

Expelled from the Society since the last meeting of the Council:



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