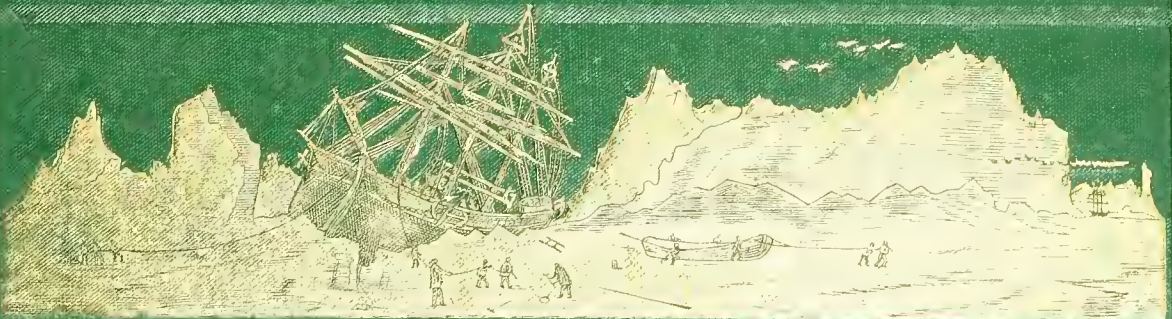
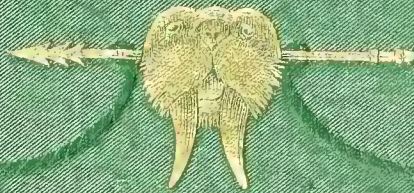




ARCTIC
EXPEDITIONS
FROM
BRITISH AND FOREIGN SHORES

FROM THE EARLIEST
TO THE EXPEDITION OF 1875.



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ARCTIC EXPEDITIONS

FROM

BRITISH AND FOREIGN SHORES

FROM THE EARLIEST TO THE EXPEDITION OF 1875

BY

D. MURRAY SMITH, F.R.G.S.

Numerous Coloured Illustrations, Maps, and other Engravings

VOLUME II

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CHAPTER II.

ROSS'S VOYAGE, 1829-33—DISCOVERY OF A NORTH MAGNETIC POLE—FIVE YEARS AMONG THE ICE.

AFTER the return of Captain Parry from his attempt to reach the North Pole, in which, though he failed in his main object, he succeeded in reaching the highest latitude ever attained, Captain John Ross—of whose first Arctic voyage in 1818, in the "Isabella" and "Alexander," a narrative has been given—submitted to the Admiralty the plan of a voyage for the discovery of the North-West Passage by way of Prince Regent Inlet, to be undertaken in a steam vessel. The proposals of the gallant captain, though urged upon Government on three successive occasions, were not received with approval, and it was not till 1829 that, through the munificence of his friend Mr Felix Booth, he was enabled to purchase and fit out the "Victory," formerly a steam-packet running between Liverpool and the Isle of Man, and to equip her for the projected voyage. The "Victory" was a paddle-steamer, and however absurd it may appear to us to have selected a vessel of such construction for a voyage in frozen seas, it must be remembered that at the time referred to, steam-engineering was as yet in its infancy, that no steamers had previously been tried in the ice, and that, as by an ingenious contrivance the paddles could be lifted out of the water "in a minute," no apprehensions due to the form of the vessel were felt by its commander or officers. The tonnage of the steamer was originally no more than eighty tons, but after five feet and a half had been raised on her, she became capable of carrying a hundred and fifty tons, including the engine, with the necessary complement of provisions.

No sooner were the preparations for the voyage well begun, than Captain Ross received generous and disinterested offers of service from many distinguished naval officers. The following letter from Lieutenant Hoppner, who had sailed with Parry in all his voyages, except the last, is worthy to be remembered as evidence of the gallantry and generous enthusiasm of the writer: "As I feel so much interested in your noble enterprise," writes Hoppner to Ross, "I cannot help expressing myself more explicitly on the

subject next my heart. If you will accept my services, I am ready to go with you, in *any capacity*, and will make over all I am worth in the world for the advancement of your object. I promise you most implicit obedience; and will never offer an opinion unless required. Be assured of my devotion to the great and noble undertaking." Captain George Back, the tried and trustworthy companion of Franklin, also offered equally disinterested service. Meeting Captain Ross walking in Parliament Street, London, Back begged to be put upon the expedition. "Will you take me on any terms?" he asked; "I will go as draughtsman, or anything you chose to make me." Offers like these are in themselves the most valuable testimony to the character of the famous seaman to whom they were made, as well as to the spirit and courage of the naval service. In the meantime, however, Captain Ross had selected his nephew, Lieutenant James Clark Ross, who sailed in all Parry's expeditions between 1818 and 1827, as his second in command, and there was no accommodation for gentlemen-volunteers.

The "Victory" sailed from Woolwich on the 23d May 1827. From the first day the steam-engine was felt to be a failure. Primitive and rude in design, it was ineffective for speed, and had been so carelessly put together, and was constructed of material so imperfect, that it was continually getting out of working order. It seemed "as if it had been predetermined that not a single atom of all this machinery should be aught but a source of vexation, obstruction, and evil." The smaller boiler was landed as useless lumber, on the Irish coast, on the 9th June—and the whole of the removable machinery of this detestable engine was thrown out, with execrations and "curses not loud but deep," on the shore of Regent's Inlet, to allow the explorers additional space before settling down comfortably in their first winter quarters.

With the tedious catalogue of small misadventures with which Ross burdens the narrative of his departure from the British shores, we cannot here concern ourselves. It is enough to state that after a series of minor misfortunes which severely tried Ross's patience—and completely exhausts that of the readers of his "Narrative"—the "Victory" departed from the Irish coast in the middle of June, and, with a fair wind, ran in a fortnight to Cape Farewell. Disco Island was left behind at near the close of July, and early in August Captain Ross found himself at the entrance to Lancaster Sound. He had now reached the spot at which, on his former voyage, he had resolved to return, believing as he then did that there was no westward passage through the sound, but that an immense range of mountains landlocked the inlet. On August 7th land was seen on both sides of Lancaster Sound, and the course of the "Victory" was about mid-way between the two coasts. By observation at noon the latitude was found to be $73^{\circ} 50'$, the longitude about $74^{\circ} 42' W$. Good progress west-

ward was made on the 9th, and on the 10th Ross had rounded Cape York and was heading the entrance to Regent Inlet. Standing across the mouth of the inlet, on the 11th land was made on its western shore, between Cape Seppings and Elwin Bay. At nine p.m. Batty Bay was passed, and ice was met thicker and much rougher than any that had been seen in the voyage up Baffin's Bay. The weather became thicker after midnight, but there being no appearance of danger, Captain Ross and his nephew (now Commander Ross) retired to rest, leaving the charge of the vessel to their "experienced and excellent mate, Blanky." This officer soon had occasion to prove whether the trust reposed in him was justified by his vigilance and the quality of his seamanship. "At two o'clock in the morning," writes Ross, "a heavy pack of ice which had been concealed from us by the fog, suddenly made its appearance at only three cables' length under our lee, and was only then recognised by the tremendous breakers that were surging over it. Deciding at once that the only chance for us was to weather the end next the land (the west extremity of the pack), he let fly the storm trysail sheet, and pulling the helm up, gave us notice of the danger." In wearing round to westward, however, the ship received a violent shock from a piece of ice on the larboard, which helped to bring the ship's head the right way. The pack was now on the lee-bow with the sea breaking over it, and in order to weather it all sail was set. The ship drove on and was providentially carried clear of the pack by a distance of about her own length. At once the most delightful relief was experienced, and the "Victory" came suddenly out of a turbulent sea into a reach of water as smooth almost as glass.

At six o'clock, the weather moderating, Ross set the mainsail, passed the ice, and stood towards the land. "In half-an-hour we saw the place where the 'Fury' was wrecked, with the poles of the tents standing; but we could not discern the ship, though we were sometimes willing to think that she was distinguishable. To our great mortification, however, we could not reach the spot; and we now saw that a strong southerly current or tide was hurrying us away from this unlucky place. A thick fog obliged us to wear, and return to our shelter under the ice we had just quitted." After beating about for some time an anchorage was sought for in Adelaide Harbour, on the western shore of Regent Inlet, and a few miles south-west of Fury Beach. A wind springing up from the westward, however, the "Victory" was driven out of its shelter toward the north-east, and after much trouble Ross succeeded in mooring her securely in a good ice-harbour at a spot of the coast within a quarter of a mile of the place where Parry had landed the stores of the "Fury," prior to abandoning that vessel. Being anxious to examine this interesting spot, the captain, taking with him Commander Ross, Mr Thom, the purser, and the surgeon, landed to visit it.

“We found the coast almost lined with coal,” writes the captain; “and it was with no common interest that we proceeded to the only tent which remained entire. This had been the mess-tent of the ‘Fury’s’ officers; but it was too evident that the bears had been paying it frequent visits. . . . Where the preserved meats and vegetables had been deposited, we found everything entire. The canisters had been piled up in two heaps; and though quite exposed to all the chances of the climate for four years, they had not suffered in the slightest degree. There had been no water to rust them, and the security of the joinings had prevented the bears from smelling their contents. Had they known what was within, not much of the provision would have come to our share.” . . . Opening the canisters, and expecting to find the contents of each a frozen mass, Ross was agreeably disappointed. Neither in appearance nor in taste had the articles suffered any deterioration. The wine, spirits, sugar, bread, flour, and cocoa, were found to be all in equally good condition; neither the lime-juice nor the pickles, indispensable as remedies for scurvy, had suffered much, and even the sails, which had been well made up, were not only dry but seemed as if they had never been wetted.

Here, then, in the midst of what is perhaps the least sheltered region of the Arctic zone, and the least productive in material useful for food, Captain Ross had made the extraordinary “find” of a commissariat plentifully and almost completely stored with all that he should require to keep his expedition well supplied throughout the winter, even although he had not a day’s rations left in the hold of the “Victory.” That vessel, however, had been furnished with provisions for a thousand days, or roundly for two years and a half, and though the stores had already been liberally drawn upon, enough was left to secure the expedition against privation for at least one year. It is sometimes curious to note how Time “brings in his revenges.” In 1818 Ross had declared that Lancaster Sound was closed to the westward by a rampart of mountains; in the following year Parry sailed over the district which these mountains were supposed to occupy, and proved, by opening up Lancaster Sound, Barrow’s Strait, and the North-West Passage (in this latitude) as far west as Bank’s Land, that Ross, in his voyage of the previous year, had been completely mistaken. It does not appear that Ross ever quite forgave the junior officer who had proved him to be in the wrong; and in the “Narrative” of his second voyage, the outline of which we are now tracing, the senior navigator argues through two or three bitter pages that Parry, when acting as his second in command in the expedition of the “Isabella” and “Alexander” in 1818, was not of the opinion that Lancaster Sound was open towards the west; and that if he did entertain such an opinion, his first duty was to communicate his impression to his superior officer. The discussion has sunk irrecoverably into the limbo of things never

again to be remembered, and it would not have been referred to here but for the curious circumstance that Ross, who is always unwilling to grant due credit to Parry, only reached Regent Inlet by sailing along the coasts that Parry had discovered, and that he lived for four years upon the stores which Parry had securely deposited, for the use of the first comer, on Fury Beach.

"We proceeded now to the beach where the 'Fury' had been abandoned," continues Ross, "but not a trace of her hull was to be seen. There were many opinions, but all were equally at liberty to conjecture what had become of the wreck. Having often seen, however, what the moving masses of ice could do on this coast, it was not difficult to guess in general what we could not explain in detail. She had been carried bodily off, or had been ground to atoms and floated away to add to the drift timber of these seas. At any rate, she was not to be found. . . . We therefore returned on board, and made preparations for embarking a sufficiency of stores and provisions to complete our equipment for two years and three months, being what we expected to want on the one hand, and to obtain on the other. I need not say that it was an occurrence not less novel than interesting, to find in this abandoned region of solitude and ice and rocks, a ready market where we could supply all our wants, and, collected in one spot, all the materials for which we should have searched the warehouses of Wapping or Rotherhithe, all ready to be shipped when we chose, and all free of cost; since it was the certainty of this supply, and a well-grounded one it proved, that had formed the foundation of the present expedition."

A list of the provisions, fittings, etc., required by the "Victory," to complete her supplies for a period of two years and three months, having been made out by the purser, Mr Thom, Ross landed with most of his officers and crew to take over such of the "Fury's" stores as were required. They took away all the canisters they could stow in the "Victory," yet the piles of these with which the shore was covered seemed scarcely to have suffered any diminution. On the following day, the 14th August, the embarkation of the stores, including ten tons of coals, was completed. The spare mizzen topmast of the "Fury" was found, and was made a prize of by the carpenter, who converted it into a boom for the "Victory," in place of one that had been lost in a gale. Anchors, hawsers, together with boatswain's and carpenter's stores, were obtained to make up deficiencies, and a number of the best sails were taken to be used as housings. From the powder magazine Ross selected as many of the patent cases—in which the gunpowder was found to be in perfect preservation—as he considered he should require; "and with this," exclaims the lucky captain, "we ended our new outfit, storing ourselves, somewhat like Robinson Crusoe, with whatever could be of use to us in the wreck."

All preparations being now completed, and a breeze springing up from

the northward, the boats—including the large decked barge of sixteen tons, to which Ross had given the name of the “Krusenstern”—were hoisted on board, and sail was made for Cape Garry. On the 15th, this cape, the farthest extremity of the coast which had yet been discovered, was passed, and from this point “our voyage,” says Ross, “began to acquire its peculiar interest, since as yet we had seen nothing that was not more or less known.” Pursuing a south-west course from Cape Garry along the western shore of Regent Inlet, Ross successively discovered and named Fearnall Bay, Lang River, Mount Oliver, and Hazard Inlet. Rounding this inlet, he discovered an island which he named Ditchburn, and beyond that he discovered a land appearing to be continuous in a southward direction, to which, in honour of Felix Booth, Esq., who had so generously borne the cost of fitting out the expedition, he named Boothia. “It now fell nearly calm,” says Ross, “but, while the ice became thicker and heavier towards four in the afternoon, the fog cleared away, and there broke on our view a range of mountains rising beyond the land that we had been coasting, which we now saw clearly to be a low and flat tract, continuous eastward with this elevated region, and consisting, not of an uninterrupted plain, but of a series of low grounds and islets, among which we could but ill discern what was a real island, and what was connected by an isthmus with the shore.” In fact Ross had now reached the eastern entrance to Bellot Strait, a channel, however, which it was left for Kennedy to discover in his voyage in the “Prince Albert,” in search of Sir John Franklin, in 1851-52.

The sky continued to brighten, and the mainland appeared quite blue; but it was impossible to reach the inviting shore, owing to a tract of closely-packed ice, which extended in crescent shape along the land. This was the first time that the progress of the “Victory” had been completely obstructed, and it was only now that Ross discovered he had arrived too early in the season to push on in the desired direction. A fresh north-west wind continued to blow on the 15th, but no opening in the ice was seen. At two o'clock on the morning of the 16th the explorers got near the land, and made fast to an iceberg, about musket-shot from the beach, in three and a half fathoms water, and at the entrance of “two beautiful little harbours.” At noon, Ross went on shore with all the officers, to take formal possession of Boothia Land, “and at one o'clock, being a few minutes after seven in London, the colours were displayed with the usual ceremony, and the health of the king drunk, together with that of the founder of our expedition, after whom the land was named.”

Ross was in some respects an unlucky navigator. In his former voyage he had *all but* opened up Lancaster Sound, and discovered Barrow Strait, with the numerous inlets, islands, and channels, which formed such a rich harvest of discoveries for Parry in the following year, and now he was actually standing on a height overlooking the eastern entrance to a channel leading

westward into the Arctic—the Bellot Strait of Kennedy—yet he failed to discover it, and erroneously regarded it as an inlet, which he named Brentford Bay. At noon on the 17th, observations were obtained, giving lat. $71^{\circ} 59'$, long. $93^{\circ} 32'$. The dip of the magnetic needle gave 89° —the greatest dip that had yet been observed. “As the variation also was westerly,” says Ross, “we expected that we should find or pass over the magnetic pole, which, under such a dip, could not be far distant.”

At night the tide rose and floated the iceberg to which the “Victory” had been made fast, and Ross was obliged to cast off. Taking advantage of a light air of wind, he stood out for an opening that seemed to lead to the southward. Continuing to stand to the southward, at four o'clock on the morning of the 19th, the “Victory” was steered between two large pieces of ice which suddenly closed, so as to give the vessel a most alarming “squeeze.” She escaped, however, from the stern embrace. But it was now evident to Ross that he had about reached the extreme limit of the clear water. Before noon the ice came down on the “Victory” with great violence, and it was with difficulty the rudder was unshipped in time to be saved. After being drifted about helplessly along the shore for a number of days, Ross left the ship to explore an inlet, which he had discovered in lat. $70^{\circ} 55'$. The inlet was a quarter of a mile wide, and soundings were obtained in fifteen fathoms. Rowing up the creek for a mile, Ross was pleased to behold it expand into a spacious opening, having twenty fathoms in the middle, and shoaling gradually to the sides. Ascending a hill, the captain had a perfect view of a harbour “not exceeded by any in the world.” The discoverer named it Elizabeth Harbour, and within it he found refuge for a few days. But the season was too far advanced to remain in any harbour, except that which was to form the home of the expedition during the winter. Accordingly, though wind and current were unfavourable, Ross put out to sea, where, without achieving any noteworthy result, he was buffeted and drifted about for days. On the morning of September 11th, after having been moored all night under the lee of an iceberg, the “Victory” was pushed out from the shore to take advantage, if possible, of the fresh breeze that had sprung up from the north-west. “The attempt, however,” says Ross, “was made in vain; and after three hours of hard labour, we could neither proceed nor extricate the ship, so that we were obliged to submit ourselves to the ice, which was now closely packed in the whole channel which it occupied. It was in vain that we attempted to disengage ourselves, even when it got into motion. . . . We therefore thought ourselves lucky in getting hold of a grounded iceberg; though the points of rocks were appearing all around, and close by our ship. Unfortunately, however, a wind springing up from the westward brought down an additional quantity of ice before daylight, with a great increase of pressure, when the whole

mass began to move to the eastward with frightful rapidity, carrying along with it our helpless ship, amidst a collision and a noise, from the breaking of the ice against the rocks, which was truly awful." Luckily the drift of the ice carried the "Victory" into an open channel, where she was made fast to a grounded iceberg, and thus secured for the time. The change of tide drove the explorers out of their shelter, and they were carried within three yards of some rocks which were just under water, at the narrowest part of the point. Believing that they might succeed in rounding this place, and thus getting into what seemed to be still water, they endeavoured with much labour to warp the ship into a small creek immediately beyond the rocks. This proved to be a whirlpool; and, says Ross, "having been turned round by it many times, for more than an hour, we were obliged to leave it, and trust ourselves once more to the confusion without."

On the 30th September, after forcing his way southward among a group of islets off the mainland, one of which he named Andrew Ross Island (lat. about $70^{\circ} 13'$ north), the captain discovered a spacious bay to the north-east, protected on the south-west by an island. In this place of security (lat. about 70° , long. G. $2^{\circ} 40'$), he resolved to take up his position; for he now considered that all hope of making further progress was at an end for the season. On the 1st October the harbour was surveyed, and Ross was pleased to find, that should he be frozen up in this spot, he should find it safe. And here, sure enough, he was frozen up; so satisfactorily frozen up, that he was forced to spend four terrible winters amid the ice of this region, without being able to extricate himself. Lucky it was for the adventurers in the "Victory," that they had amply provisioned themselves from the "Fury's" stores; for had they not thus been providentially supplied with the means of sustaining life, they must have perished to a man before the close of the second winter.

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THE WHALE IN MELVILLE BAY.

CHAPTER III.

THE "VICTORY" FROZEN IN—ESKIMO VISITORS—A HOSTILE RECEPTION—MUSK-
OX HUNT—THE SECOND WINTER IN THE ICE—NORTH MAGNETIC POLE
DISCOVERED—THE THIRD WINTER IN THE ICE—ROSS ABANDONS THE
"VICTORY"—THE RETREAT TO FURY BEACH.

FOR several days Captain Ross indulged a faint hope that he might yet be able to force his way through the ice and proceed still farther south; but on the 8th October it had become evident to himself and his officers that they were now in what was destined to be their home for the winter. On the day named a survey was made, but not a pint of clear water was to be seen anywhere—nothing but one dazzling and monotonous, dull and wearisome, extent of snow was visible all round the horizon. "It was indeed," exclaims Ross, "a dull prospect. Amid all its brilliancy this land, the land of ice and snow, has ever been, and ever will be, a dull, dreary, heart-sinking, monotonous waste, under the influence of which the very mind is paralysed, ceasing to care or think, . . . for it is but the view of uniformity and silence and death." As it appeared to the gallant captain, the picture was no doubt dreary enough. But it applies only to that reach of Regent's Inlet in which he now found himself; for other explorers, in other tracts of these regions, and pursuing the work of exploration perhaps with a keener instinct and larger capacity, and certainly with more efficient means and facilities for carrying on the work, have found the sternest Arctic winter not without its pleasures, its useful occupations, and its fascinations of adventure.

Meantime the arrangements for rendering the "Victory" a comfortable dwelling-place were immediately commenced. On the 10th October nothing remained standing on the vessel but the lower masts with their rigging. The fuel was then measured and found to amount to 700 bushels of coal and coke—enough to supply fuel for as many days. The provisions were also examined, and the quantity was found sufficient for three years. There was only one year's allowance of spirits on board; but this was rather a matter for congratulation than otherwise, as their use, in any but the smallest quantities, and on other than occasions of emergency, is invariably

attended with pernicious effects in these regions of the extreme north. Thoroughly convinced of this fact, Ross gave orders that the usual allowance of grog should be stopped, and was gratified, and perhaps a little surprised, to find that these orders were received without remonstrance. Before the close of October the roofing-in of the vessel with sails was completed, and the building of a rampart or embankment of snow around it, as a protection from the bitter winds, was being proceeded with. The upper deck was covered with snow to the depth of two feet and a half, and this coating was sprinkled with sand so as to have the appearance of a rolled gravel walk. "The surrounding bank of snow being completed, reached to the ship's gunwale, so that the union of this with the roof formed a perfect shelter from all wind, and thus excluded, very materially, the impressions of the external cold." Every yard of rigging was taken down, cleaned, marked, and stowed away, and arrangements for meals, for work outside the ship, and for carrying on an evening school for instruction in reading, writing, arithmetic, and navigation, were also completed. Reviewing all his arrangements, at the close of November, Ross states, that "the system of comfort and economy which had been planned was as perfect as could be desired; and the satisfaction of the men with these things, with each other, and with their officers, could not have been greater. Under their system of education they improved with surprising rapidity; while it was easy to perceive a decided change for the better in their moral and religious characters."

But Captain Ross's narrative of the first of his five years' sojourn in the ice is almost eventless; and as we have so much of stirring adventure, of geographical discovery, and scientific research to attract us, in the voyages of later explorers, we dare not linger over the bare annals now under consideration.

Nothing of importance occurred down to January 9th, when information was brought to Captain Ross of the appearance of Eskimos. The captain went out, and after walking some distance, saw four natives near a small iceberg, not far from land, and about a mile from the ship. As Ross approached they retreated behind the iceberg, and on his advancing still nearer, "the whole party came suddenly out of their shelter, forming in a body of ten in front and three deep, with one man detached on the land side, and apparently sitting on a sledge." These thirty Eskimos were armed with knives and spears, and they must have had a most formidable appearance. Ross and his party advanced, shouted the Eskimo salutation—*Teyma teyma, aja teyma*—and threw away their guns. This was at once a friendly greeting, and an assurance of peaceful intentions. The blameless Eskimos appreciated the amiable overture, "threw their knives and spears into the air in every direction, returning the shout *Aja*, and extending their arms to show they also were without weapons. But as they did not quit their

places," continues Ross, "we advanced and embraced, in succession, all those in the front line, stroking down their dress also, and receiving from them, in return, this established ceremony of friendship." Commander Ross, who was in attendance upon his uncle, and who, during his repeated voyages with Parry, had to a certain extent acquired the Eskimo language, now opened up intercourse with them. They were thirty-one in number; the eldest, Illicta, sixty-five years of age. One of them, in an encounter with a bear, it was understood, had lost a leg. All were well dressed in excellent deerskins, "the upper garments double, and encircling the body, reaching in front, from the chin to the middle of the thigh, and having a cape behind to draw over the head, while the skirt hung down to the calf of the leg in a peak not unlike that of a soldier's coat of former days. The sleeves covered the fingers; and, of the two skins which composed all this, the inner one had the hair next the body, and the outer one in the reverse direction. They had two pairs of boots on, with the hairy side of both turned inwards, and above them trousers of deerskin, reaching very low on the leg; while some of them had shoes outside of their boots, and had sealskins instead of those of deer, in their trousers."

These well-to-do savages consented to visit the ship, in which they conducted themselves much after the fashion of the natives with whom earlier explorers had been in communication. At the appearance of the snow embankment around the "Victory" they expressed no surprise — this species of snow architecture being familiar to them. A present of a piece of iron hoop was made to each man, and great was the delight with which it was received. The younger Ross did not recognise any of his former acquaintances of Winter Island or Igloodik among this tribe; but when he mentioned the names of places near Repulse Bay, Wager River, etc., they immediately recognised the names, and pointed in the direction of the localities. Captain Ross had now an opportunity of closely observing them, and he says, "We could now easily see that their appearance was very superior to our own." They were at least well clothed, and their plump and ruddy cheeks gave evidence that they were in excellent health and had abundant food. Indeed, in the matter of eating and drinking they were connoisseurs of no mean pretensions. Preserved meat was given to them, and one of them, a deeper diplomatist than his brethren, ate a small morsel of it, and faintly pronounced it "very good." On cross-examination, however, he admitted that he had said what was not true; and having obtained permission, he and the other natives threw away the meat with which they had been supplied. They were offered wine and spirits, which they evidently considered miserable drinking; but they drank off beakers of oil with much satisfaction, and were glad to think that the white people had at least one tolerable beverage among their stores. A party from the "Victory" accom-

panied the natives part of the way back to their huts, and coming to a seal-hole in the ice, the Eskimos showed their new friends the use of the spear in enlarging the hole for the insertion of a twig of birch or ash. It is their custom to sit patiently, watching at the seal-holes until they see the twig agitated. They then know that the seal has come to the hole to breathe, when immediately they strike him through the thin ice with their spears and secure him.

On the following day, 10th January 1830, Ross, with a party, set out from the ship to inspect the village of the Eskimos. The houses had the appearance of inverted basins, and the low snow-built passage forming the entrance looked like the handle of each. The entrance passage can be easily moved, and in severe weather is always turned away from the direction of the prevailing wind. The passage, always long, and generally crooked, led to the principal apartment, which was a circular dome, ten feet in diameter when intended to accommodate only one family, but larger when it contained two families. A third of the area of the interior was occupied by a bench of hard snow, two and a half feet high. This bench formed the sleeping-place for the whole family, and when so used, was covered with skins. The houses were lighted by a large piece of clear ice, fixed half-way up on the eastern side of the roof. The oil lamp, with its wick of moss, kept the whole hut warm, and supplied sufficient light during the dark weather.

The friendly intercourse thus commenced between the explorers and the Eskimos of the east coast of Boothia Felix continued uninterrupted for many a day. One of Ross's principal objects in securing the goodwill of the natives was to obtain from them all the geographical information of which they were possessed. Accordingly, he frequently had parties of the best informed of the Eskimos to dinner in his cabin, when, after regaling them with soup and salmon—they declined to touch salt meat, and would on no account look at pudding, rice, or cheese—pencils, paper, and the charts of the land round Regent's Inlet, so far as known, were placed before them, and they were invited to continue the land lines, and to insert the lakes, rivers, etc., with which they were familiar. But as no noteworthy result accrued from these geographical *séances*, we must not linger over their details. One of the best native geographers was Tulluahui, the man who had lost his leg in the encounter with the bear. This hunter's contributions to the geography of the neighbouring coasts were magnificently rewarded. To his great astonishment he was one day handed over to the surgeon of the "Victory," who examined his leg, found the stump good, and, calling the carpenter, directed him to take the necessary measurements, and make a wooden one. The commission was most successfully executed, and Tulluahui, with a broad foot-piece fitted to his wooden leg, to enable him to walk on difficult ice with



ease, was once more able to join his neighbours, and take his turn of duty at the seal-fishing. The skill of the ship's carpenter in thus providing a substitute for the natural limb, gave the greatest satisfaction and delight to the whole tribe. One man, who had a slight sore on his leg, came to Ross and begged to be furnished, like Tulluahui, with a wooden one. "I have no objection," said Ross, "on condition that you first have your own leg cut off." The Eskimo never repeated his request.

During the spring of 1830 Commander Ross, Captain Ross's nephew and first officer, made a number of journeys from Felix Harbour—the name given to the inlet in which the "Victory" was frozen up—for the purpose of exploring the surrounding country. The third of these expeditions was undertaken for the purpose of visiting a place considerably to the north of Felix Harbour, at which point, according to the Eskimos, the land trended away to the north-west. This, it was reported, was the route to the western Arctic Ocean, to reach which was one of the chief aims of the explorers. On the 27th April Commander Ross, accompanied by the surgeon, and by Abernethy, the mate, set out with their dog-sledge to reach the Eskimo village, where, it had been arranged, they were to procure a guide. Their arrival at the huts was not hailed with the cheerful shouts with which they had been greeted on all former occasions; and they were surprised to find that all the women and children had been sent out of the way. Soon the men swarmed out from the huts; and young Ross was astonished to observe that all the men were armed with their knives. "It was the noise of our dogs," says Ross, "that gave them notice of our arrival; and as soon as this was heard, one of them rushed out of a hut, brandishing the large knife used in attacking bears, while the tears were streaming down his aged and furrowed face, which was turning wildly round in search of the objects of his animosity. In an instant he lifted his arm to throw his weapon at myself and the surgeon, who were then within a few yards of him. But the sun dazzling him, caused him to suspend his arm for an instant, when one of his sons laid hold of his uplifted hand, and gave us a moment's time for reflection." Ross retired to the sledge, where he had left his gun. The old Eskimo, Pow-weet-yah, struggled to free himself; and a number of the natives made a detour so as to surround the Englishmen. Gradually they closed in, brandishing their weapons, and had arrived close upon the sledge, when Ross raised his gun to his shoulder, upon which the Eskimos beat an instantaneous and rapid retreat. The Englishmen could not even guess at the reason for this hostile reception, until one of the women, calling on the explorers not to fire, advanced towards them, and explained the meaning of the warlike demonstration. She stated that one of Pow-weet-yah's adopted sons, a fine boy of seven or eight years of age, had been killed on the preceding night by the falling of a stone on his head. This fatal accident the

Eskimos attributed to the agency of the white strangers, to whom they ascribed the possession of all manner of supernatural powers. An explanation immediately followed, and friendly relations with the natives were soon re-established.

This journey, resultless in its objects, and dull enough in its details, was enlivened by an exciting musk-ox hunt. Ross's guide, Poo-yet-tah, having discovered recent tracks of this animal, let slip the dogs. These immediately started off upon the track at full speed, and were soon out of sight. Ross and the guide followed, and after a rapid march of two hours, on turning the shoulder of a hill, had the intense satisfaction of beholding a fine ox at bay before the three dogs. The guide, who now rushed on in advance, attempted two or three times to bring down the huge animal with his arrows, which, however, proved ineffectual and harmless against the great creature's ribs and hide. Ross advanced to within fifteen yards, and fired. The ox dropped, but rising again, charged Ross, who eluded the attack by dodging behind a large stone, which was luckily in the near neighbourhood, and upon which the animal, "rushing with all its force, struck its head so violently that it fell to the ground with such a crash that the hard ground around us fairly echoed to the sound." Again the creature recovered, and charged as before. Ross was now in the open, but having had time to reload, he awaited the onset, fired, and brought down the ox at a distance of five yards. "The sight of his fallen enemy," says Ross, "made my companion scream and dance with joy. . . . He was lost in astonishment at the effect of the firearms; first carefully examining the holes which the balls had made, and pointing out to me that some of them had passed quite through the animal. But it was the state of the broken shoulder which most surprised him; nor would it be easy to forget his look of horror or amazement when he looked up in my face and exclaimed, '*Now-ek-poke*'—'It is broken!'"

Captain Ross's narrative of the first year's sojourn of the "Victory" among the ice is weary, stale, flat, and unprofitable to a degree beyond what the heart of readers of the present day can conceive. Besides the present writer, there is probably no human being alive at this moment who could, would, or should read it in its entirety. It is suffused with a faint colouring of interest only in one portion—that in which the expedition of Commander Ross across the isthmus of Boothia is described; but even this journey, performed in the face of continual perils, was in itself practically resultless. It is with a sense of relief, therefore, and with no feeling of regret, that we pass over the dull and monotonous details of Ross's journal until we arrive at the entry for the 17th September. In the morning of that day the ice had drifted off the land, and at two o'clock, all necessary preparations having been made, Ross found himself once more afloat, and in clear water. He advanced three miles, when he was again stopped by ice—the detention

lasting for more than a week. It soon became evident that the "Victory" was not to be released this season ; and on the 30th September the explorers found themselves frozen in for another year in a harbour only a few miles distant from that in which they had spent the winter of 1829-30.

The principal enterprise undertaken by the explorers during the year 1831 was the journey undertaken under the command of the younger Ross, to ascertain the position of the North Magnetic Pole. This question had deeply engaged the attention of Parry and Franklin ; and one of the objects they had in view in making daily records of the variation of the compass, and the dip of the magnetic needle, was to arrive at some satisfactory solution of it. From the mass of their observations, these navigators had calculated the position of this important spot to be in 70° of north latitude, and in $98^{\circ} 30'$ of west longitude. "Thus," says Commander Ross, "it appeared that in the course of my land journey to the westward in the preceding year (1830) I had been within ten miles of this assigned place, when near Cape Felix, but as I was not then provided with the necessary instruments, I could do nothing towards verifying the fact." Now, however, when the "Victory" had been again imprisoned in the ice, and when there was little to employ her officers and men, Commander Ross resolved to make an attempt to set this question at rest. Accordingly, setting out on the 27th with his party, Ross travelled westward all night across Boothia Isthmus until eight on the following morning, when he made his encampment in lat. $69^{\circ} 34' 45''$, long. $94^{\circ} 54' 23''$ W. At this point he found that the dip of the magnetic needle had increased to $89^{\circ} 41'$ N., and that the north end of the horizontal needle pointed to north 57° W. "By means of these observations," writes the explorer, "I was enabled to determine both the direction in which we must proceed, and the distance that lay between us and the great object in view." On the evening of the 28th the march was resumed, and, as usual, continued during the night, to lessen as far as possible the danger from snow-blindness. On encamping on the morning of the 30th May, the latitude was found to be $69^{\circ} 46' 25''$, the long. $95^{\circ} 49' 11''$ W. Ross was now coasting a wide inlet running westward from Boothia Isthmus into one of the arms of the Arctic Ocean. On the morning of the 31st the party had reached to within fourteen miles of the position of the Magnetic Pole, as calculated by Ross. Leaving all unnecessary baggage and provisions behind, the young explorer set out on a rapid march, and reached the spot which, according to his calculations, marked the position of the Magnetic Pole, at eight in the morning of the 1st June. "I believe I must leave it to others," he writes, "to imagine the elation of mind with which we found ourselves now at length arrived at this great object of our ambition. It almost seemed as if we had accomplished everything that we had come so far to see and to do ; as if our voyage and all its labours were at an end,

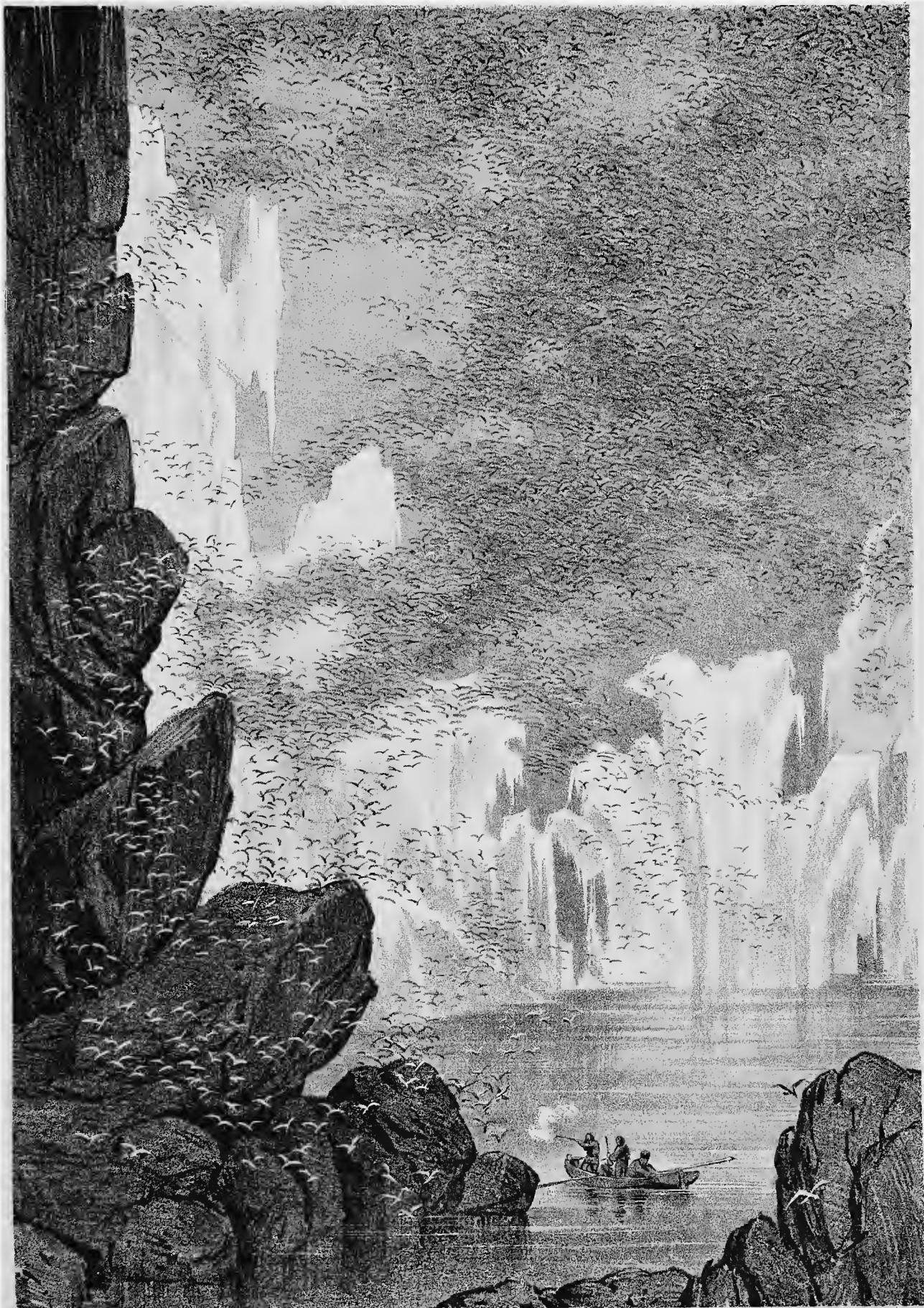
and that nothing now remained for us but to return home and be happy for the rest of our days."

There was nothing in the appearance of this famous spot to indicate that this was the centre, or the position on the earth's surface of the centre, of one of the greatest and most mysterious of earth's influences—terrestrial magnetism. The land was low near the coast, and rose in ridges of fifty or sixty feet high about a mile inland. No striking feature in the landscape arrested the eye; and "Nature had here no monument to denote the spot which she had chosen as the centre of one of her great and dark powers." Ross had therefore to content himself with noting by mathematical numbers and signs what it was difficult to distinguish in any other manner. An encampment was speedily formed, and the necessary observations were commenced. "The amount of dip," says Ross, "as indicated by my dipping needle, was $89^{\circ} 59'$, being thus within one minute of the vertical; while the proximity at least of this pole, if not its actual existence where we stood, was further confirmed by the action, or rather by the total inaction, of the several horizontal needles then in my possession. These were suspended in the most delicate manner possible, but there was not one which showed the slightest effort to move from the position in which it was placed, a fact which even the most moderately informed of readers must now know to be one which proves that the centre of attraction lies at a very small horizontal distance, if any."

Having thus ascertained that he had reached the position of the Magnetic Pole on the earth's surface—that, in fact, he was actually standing upon that hitherto unknown spot—Ross communicated to his companions the result of their joint labours, after which, amid mutual congratulations, he, with their co-operation, planted the British flag upon the spot, and "took possession of the North Magnetic Pole and its adjoining territory in the name of Great Britain and William IV." A lofty cairn, under which was buried a canister containing a record of the discovery, was raised, and the latitude was determined to be $70^{\circ} 5' 17''$ N., long. $96^{\circ} 46' 45''$ W. The return journey was commenced on the 2d, and successfully finished on the 13th June.

This famous and important discovery was the one great scientific achievement of the expedition, and from this point onwards there is little to note, further than the various and disheartening attempts made by the explorers to escape from the ice, until we come to record more in detail the heroic efforts by which, abandoning their vessel, they at last reached the open sea in their boats.

The summer of 1831 was chilly, and brought with it no promise of relief to the ice-bound explorers. On the night of the 3d July water, previously open, froze to the thickness of an inch and a half. During this month an immense number of fish were caught, and pickled in hot vinegar, dried, or



salted. The natives assisted at the fishery, and thus became acquainted for the first time with the use of nets, of the value of which they showed full appreciation. Ross, perceiving that the natives were fully aware of the value of the fishing-net, ordered his men to instruct them in the method of manufacturing it, and thus made them a present of a contrivance which would be of the highest importance to them. Indeed, throughout all the intercourse between the Englishmen and the Eskimos, the latter were always treated with the greatest humanity and considerate kindness. Reflecting on the character of this intercourse, Ross states, with a justifiable pride: "We had sold them no rum, we had introduced no diseases among them, nor had we in anything done aught to corrupt their morals or injure their healths—to render them less virtuous or less happy than we had found them. Nor had they learned anything from us to make them discontented with their present and almost inevitable condition. On the contrary, while we soon hoped to leave them as happy as we had found them, we had reason to believe that they would hereafter so far profit by our example, and by the displays of knowledge and ingenuity which they had seen with us, as well as by the various useful things we had distributed among them, as to augment their own ingenuity and resources, and thus improve their condition of life as far as that was capable of improvement."

During the summer months every necessary preparation had been made to fit the "Victory" for the open sea. The gunpowder was taken on board on August 5th, and the vessel was hove some little distance out of its icy bed on the 11th; but there was heavy snow on the 16th, followed by fog and rain, and though the ice had now begun to shift about the ship, an adverse wind drove it all back and packed the bay as before on the 21st August. On the 27th the ice began to drift out of the bay to the eastward, and on the evening of that day the passage out of the bay was deemed practicable. The "Victory" was accordingly warped a quarter of a mile to the south-west into a convenient place for taking advantage of the first opening. "As soon as this was done," writes the captain, "we got under sail, but unfortunately carrying away the mizzen-boom, could not weather a piece of ice. She was then brought about by it, and equally failed in weathering a large iceberg on the other tack, which was grounded, by which means she took the ground herself. We soon, however, hove her off by hawsers to the shore; and though her bottom did not prove to be damaged, the lower rudder iron was broken, *so that there was an end to our progress for the day.*" In other and in simpler words, Ross had again missed his opportunity, and there was now every likelihood that the "Victory" should be imprisoned in the ice on this most inhospitable of all known coasts for yet another year. On the following morning a western wind, the very wind that Ross had been praying for, sprang up, and hope once more fluttered the pennon of the

“Victory.” The vessel was again moving in free water, and at four in the morning Ross cast off, and with reefed topsail stood to the north-east along the shore on his return voyage up Regent’s Inlet towards the home he pined for. “Unluckily,” continues Ross—— but we need not quote further. It was the old, old, detestably old, story of adverse winds driving the vessel on a rocky, ice-fringed shore. After running four miles, the “Victory” entered a little bay, “which,” says Ross, with a *naïveté* one would hardly give him credit for, “we found to be secure from all points of the compass, *except four.*” One might almost as reasonably talk of the shelter afforded by a coverless umbrella. The bay in which the “Victory” was moored was found to be in lat. 70° 18’. On the 31st a survey of the situation was made, and Ross found “everything blocked up with ice.” Two hares were shot, and it was with a mournful foreboding that the sportsmen noticed that the fur of the animals was white—in other words, that winter had already commenced its reign in these happy regions of Boothia Felix.

The “sweet little cherub that sits up aloft,” and is supposed to look after the interests of “Poor Jack,” does not appear to have been a passenger in the “Victory.” In all the annals of Arctic Exploration it would be difficult to name any vessel that was so long and so continuously unlucky. There was assumption, if not presumption, in naming her the “Victory,” for even her advances were only a succession of defeats; and now, after three years of fruitless, or nearly fruitless, exploration within the Arctic circle, she was frozen up for the third winter in what is perhaps the worst harbour in the Arctic regions. “It was out of the track of animals,” says Ross, “there were no rivers, and we did not know of any fish in the small lakes near us. If we could not, therefore, look for any supplies from these sources, neither could we from the natives, as the interval between them and us was filled with unpassable ice. If our aspect was a southern one, yet there were high hills to the southward which much shortened the already too short visits of the sun.” Yet to this inlet of starvation the gay commander was inconsiderate enough to give the name of Victoria Harbour! The only victory likely to manifest itself in this quarter was the victory of the grave.

Arid, dull, and dreary as his winter home is Ross’s record of his sojourn in Victoria Harbour. Toward the close of the year scurvy began to affect the crew. On the 10th January 1832, James Dixon, one of the seamen, died; and Buck, another seaman, who had been for some time subject to epilepsy, soon after became blind. “Our medical report,” writes Ross on the 31st, “begins now to be very different from what it had hitherto been. All were much enfeebled, and there was a good deal of ailment without any marked diseases. An old wound in my own side had broken out with bleeding, and I knew too well that this was one of the indications of scurvy.” Altogether, the spirit of the Arctic realm seemed resolved to assert

his sovereignty in Victoria Harbour, and to make an example of the white intruders who had invaded his domains. One thing was now evident, that if the "Victory" could not be got out of the ice *the men must*—or one common doom would speedily overwhelm officer and man, and the whole victorious expedition would come to the somewhat unvictorious termination of the stronger members of the crew digging the graves of their comrades, without any reasonable hope that anybody would be left to perform the same service for themselves. The prospect was not cheering; and the only alternative, that of abandoning the ship and travelling north along the coast to some spot where open water was accessible in summer, was not an exhilarating one. But scurvy was hovering over the seemingly doomed vessel like a vulture, and if the men were to be saved from the threatening danger they must be kept occupied, however hopeless and cheerless the occupation. Accordingly, early in the spring of 1832 preparations were actively commenced for abandoning the "Victory." The boats had to be repaired, and sledges made for transporting them, together with the stores and other baggage. Sleeping bags of skins had also to be made, clothes repaired, etc.; and, busily engaged in these employments, the men had little time for that despondent habit of mind which so predisposes men to attacks of scurvy.

In the spring of the year the weather was intensely severe. On the 7th April the thermometer rose on a sudden to 7°, but it had not risen above zero for 136 days. "I do not believe," says Ross, "there is another record of such a continuous low temperature; and it was a state of things most certainly to confirm us in our resolution of leaving the ship to her helpless fate, and attempting to save ourselves in the best manner that we could." In April the work, laborious almost beyond conception, of carrying forward the boats, sledges, etc., was begun. On April 23d, a party of fourteen set out at nine, marched four miles to where one boat had been deposited and dragged her on two miles farther to where a second boat, with a store of provisions, had already been placed. From this point the northward journey was continued over the rough ice with great difficulty—the men, divided into two parties, each dragging a sledge laden with a boat and a quantity of provisions. But the work was altogether beyond the men's powers, and a different arrangement was decided upon. The whole party were to drag on one sledge, then return and bring up the other. The nature of the work may be conceived from the fact that, after five hours' labour, an advance of only five miles had been made. "It then began to blow so hard, with drifting snow," says Ross, "that we were obliged to halt and build snow huts. These we covered with canvas, and by means of the deerskin beds, and our cooking apparatus, the whole party of fourteen was well accommodated, though the temperature of our house at night was but minus 15°, while it was as low as 30° (below zero) outside."

The same process of dragging the sledges alternately was resumed on the following day, and it is astonishing how such labour was continued day after day by men whose food was at once insufficient and comfortless. Their meat was frozen so hard that they were obliged to cut it with a saw ; and their only way of thawing it was putting it into their warm cocoa. Fuel could not be spared for the purpose of thawing the meat exclusively. On the 26th, the party were imprisoned all day in their tent by a storm, and on the following day so difficult was the road that the travellers did not advance "more than three hundred yards in two hours." Stopped by a gale on the 28th, they resolved to secure the boats and return to the ship, where they arrived on the 30th. "The total result of this journey," says Ross, "was, that we had walked a hundred and ten miles, and had advanced in real distance but eighteen ; while it would be necessary to go over this space three times more, before everything could be even thus far advanced in a journey which was destined ultimately to be three hundred miles, though the direct one was only a hundred and eighty."

Arrived at the ship, Ross and his men immediately busied themselves in preparing provisions for the advance. On the 3d May, two sledges were taken to the first stage, four miles from the ship. The men who had dragged them returned to the ship in the evening. On the 4th, Captain Ross with ten men—the whole of the effective crew—set out with one heavy sledge. Day after day was spent in dragging on the sledges alternately, until on the 16th the travellers crossed over Eclipse Harbour. Ross and his party returned to the ship on the 21st, and commenced preparations to carry on the sick men and the remainder of the provisions. In a week all preliminaries were arranged. The chronometers and astronomical instruments which could not be taken on, were buried, together with the gunpowder, in a specially-prepared *cache* ; the masts, sails, and rigging of the ill-fated "Victory" were placed in the Krusenstern barge, which was drawn up on the shore. "And now," says Ross, in a passage at once striking and pathetic, "we had secured everything on shore which could be of use to us in case of our return, or which, if we did not, would prove of use to the natives. The colours were therefore hoisted and nailed to the mast. We drank a parting glass to our poor ship, and, having seen every man out in the evening, I took my own adieu of the 'Victory,' which had deserved a better fate. It was the first vessel that I had ever been obliged to abandon, after having served in thirty-six, during a period of forty-two years. It was like the last parting with an old friend ; and I did not pass the point where she ceased to be visible without stopping to take a sketch of this melancholy desert, rendered more melancholy by the solitary, abandoned, helpless home of our past years, fixed in immovable ice, till Time should perform on her his usual work."

And now on the 29th May 1832, the men of the "Victory" commenced one of the most laborious marches on record. The object of the march was to reach Fury Beach from Victoria Harbour by travelling north along the east coast of Boothia Felix and North Somerset Land, known, since the discovery of Bellot Strait in 1852, as North Somerset Island. In other words, the journey was to be along the greater part of the then known western coast of Regent's Inlet. The plan of the journey was to carry both the boats on to Elizabeth Harbour, with provisions for six weeks at full allowance, there to deposit the boats and half the provisions, and to proceed with the sledges and the other half of the provisions until the lat. 71° was reached, from which a "light" or unburdened party of five should be sent on to ascertain the state of affairs at Fury Beach.

On the 31st May the travellers had reached to within sixteen miles of Elizabeth Harbour. On the morning of the 3d June, after three days' most fatiguing labour, the mate Blanky approached Captain Ross and stated that he was deputed by the men to state that they wished to be permitted to abandon the boats and spare provisions there and then, and proceed direct for Fury Point. "This," says Ross, "was the first symptom approaching to mutiny which had yet occurred." But the gallant captain perceived the whole situation in an instant, and was prepared to deal with it. He had already suspected the existence of a spirit of insubordination among his men, and was prepared to extinguish it at once. "I not only expressed my refusal," writes the captain, "but ordered the party to proceed in a manner not easily misunderstood, *and by an argument too peremptory to be disputed*, after reprimanding the ambassador for the extreme impropriety of his conduct." Ross knew that the last hope of escape from the ice depended on his carrying the boats and provisions with him, and when he picked up his gun and ordered his men to advance, he did what was best for them as well as for himself.

On the 9th June everything had been got forward to Elizabeth Harbour. Here Ross resolved to leave the boats in the meantime, and to proceed northward for twenty or thirty miles with the men and with three weeks' provisions. After advancing a few miles farther north, on the 12th June, the advance party, consisting of Commander Ross, Abernethy, and Park, set out for Fury Point, carrying with them a light sledge, fifteen days' provisions, and a tent. They were directed to leave a note under a cairn at every place where they slept. Their destination was still one hundred and fifty miles distant, and by the time they had reached it Ross expected to have advanced half the distance, or seventy miles, with the loads. This arrangement was observed by both parties. On June 27th Ross had reached Cape Garry, and on July 2d arrived at Fury Beach. "We were once more at home," he writes—"such a home as it was. There was the feeling of

home at least, and that was something; it had been once the home of all of us. . . . The first measure which I adopted was to send them all to rest for the night, . . . and after this we proceeded to take a survey of the stores. Being scattered in every direction, it was, however, difficult to prevent the half-starved men from getting access to them;” and the consequence was, that a number of them devoured whatever they found so voraciously that they were seriously ill for several days afterwards.

After the men had had a rest, they were told off into parties and set to their several tasks. The first thing to be done was to construct a house. It was planned at thirty-one by sixteen feet and seven feet in height, and by evening the frame of it was already *in situ*; and in celebration of this event the explorers concluded the day with a luxurious supper from the still abundant stores of the *Fury*. The house, which was divided into two rooms—one for the men and another containing four small cabins for the officers—was named Somerset House. We have already seen what a genius Ross had for conferring appropriate names. The next matter that engaged Ross’s attention was the repair of the “*Fury’s*” boats; those of the “*Victory*” left behind at Elizabeth Harbour had not been brought up to *Fury Beach*. On the 31st July the boats were ready, and every preparation for launching upon the open water, as soon as open water should present itself, was complete.

CHAPTER IV.

INEFFECTIVE ATTEMPT TO ESCAPE—FOURTH WINTER IN THE ICE—AFLOAT IN
THE BOATS—RESCUE AT LAST.

It appeared at last that the sorely-tried crew of the "Victory" were to have the "chance," which is said to be afforded to every man at least once in his life, for no sooner were the boats ready for the water than the ice broke up, and the sailors had the happiness of seeing clear navigable water once more. No time was lost. The boats were stored with provisions for two months, with bedding and other necessaries, and launched on the afternoon of the 1st August. Sailing with the northward flowing tide, the boats advanced eight miles along the coast. With the turn of the tide it was known that the ice-stream would return to the south, and, to avoid it, Ross caused the boats to be unloaded and hauled up on the beach. "It was not a minute too soon," writes the captain, "for the ice immediately came down, and two floes near us were broken to pieces with a violent crash so as to form a ridge of hummocks close to the shore. . . . It was a singular coincidence that we experienced this narrow escape not only where the 'Fury' was wrecked, but on the same day that she was lost eight years before." For four weeks the shore remained packed with ice. On the 28th August the boats were a second time launched. Ross steered a northward course, and on the 29th he stood for the edge of the packed ice, in the direction of Cape York. On this and on the following day the pack was diligently searched all along the entrance to Regent's Inlet, but no opening could be found. Landing near Cape Seppings, and ascending a mountain on September 2d, Ross obtained a view of Barrow Strait, and saw, to his dismay, that the whole of that inlet was one unbroken field of ice, and the dismal prospect of having to return to Fury Beach for another winter was the only one which the scene suggested. Another and yet another attempt was made to pierce the pack, but every attempt was vain; and on the 30th September the wretched explorers were forced to haul up the boats on the north cape of Batty Bay, land the stores, and prepare for a journey southward to their old "home" on Fury Beach. This plan—the only one prac-

licable—having been resolved upon, the carpenter proceeded to make sledges out of the empty bread-casks, and the return march to Fury Beach was commenced on October 4th. Meantime, Taylor, one of the mates, who had been some time previously hurt by accident, was now so lame and ill that he could neither walk on his crutches nor ride on the sledges, which were continually overturning on the rough ice. *How* the party reached Somerset House on the 7th October, Ross himself seems unable to tell; and it is perhaps enough to know that they did reach home without fatal casualty. An early and miserable winter now set in, and as the house had not been prepared for severe weather, the men suffered much from cold. Gradually, however, these castaways began to fortify their habitation against the winter. Stores that had been left behind were brought in, a snow wall four feet thick was built around the house, its roof was strengthened and covered with snow, and an additional stove was set up inside. With these contrivances they found that they could raise the heat of the interior to 51°. At the close of October, Mr Thom, the purser, inspected and took an account of the remaining provisions, and found that there were flour, sugar, soups, peas, vegetables, pickles, and lemon-juice in abundance, while of preserved meats there was a considerable quantity. On the 6th November the men were busily employed throwing water on the snow walls of the house and pointing them with wet snow, which, immediately freezing, formed a coating of ice around the house which completely excluded the cold winds.

The cold of November and December was extreme; and the only amusement of the men was in trapping foxes, which they stewed or roasted, and devoured with the greatest relish. A dish of "fox" was the only variety of fresh meat obtainable. From November 1st, the whole party were put upon half rations. On the 16th February C. Thomas, the carpenter, who had been ill for some time, died. He was buried with the usual solemnities of the Church, though, with the thermometer at 45° below zero, "it was not easy to read the service out of doors." No other incident marked the slowly creeping months. Everything was frost-bound, still, immovable. Even the intellects of Ross and his companions seem to have suffered from a frost. The gallant old captain has nothing to relate, and he bemoans and apologises for the uninteresting character of his journal. "But," he pleads, "let him who reads to condemn what is meagre, have some compassion on the writer, who had nothing better than this meagreness, this repetition, this reiteration of the ever-resembling everyday dulness to record, and, what was infinitely worse, to endure. I might have seen more, it has been said: it may be; but I saw only ice and snow, cloud and drift and storm. Still I might have seen what I did not; seen as a painter, and felt like a poet; and then, like painter and poet, have written. That

also may be, but let painter and poet come hither and try ; try how far cold and hunger, misery and depression, aid those faculties which seem always best developed under the comforts of life, and under that tranquillity at least of mind, if not much more, which the poet and the writer require to bring their faculties into action. Our '*fœcundi calices*' were cold snow-water ; and though, according to Persius, it is hunger which makes poets write as it makes parrots speak, I suspect that neither poet nor parrot would have gained much in eloquence under a 'fox' diet, and that an insufficient one, in the blessed regions of Boothia Felix."

But stirring times were at hand, and, from this point onwards, there can be no reason to complain of the want of incident in the fortunes of the unfortunate explorers. The bright days of early summer were soon to shine, and one last desperate effort must be made to break through the icy barrier that had hitherto forbidden their return to civilisation. Ross had now determined to carry forward sufficient provisions to last for three months, to the spot near the north cape of Batty Bay, where the boats were lying, to march the whole party up to the depôt, and to be in readiness, early in July, to launch the boats from that point, as soon as the ice should break up. Carrying out this programme, he had succeeded, before the 30th April, in getting all his provisions advanced eight miles—a quarter of the distance to the depôt—and he considered that the labour of transporting them the whole distance would be work enough for the next month, as the sledge-parties would be under the necessity of travelling over the ground eight times, thus making the entire distance 256 miles. On the 8th May, at eleven at night, the first journey northwards was commenced, and at three in the morning, the first stage—at a distance of eight miles from Somerset House—was reached. Three sick men had been left at the house to be brought forward at a later period. On the evening of the 9th the advance party again started, and after travelling a distance of ten miles to Two River Bay, with six casks of bread, and depositing the provision there and resting, retraversed the ten miles to the first stage, to bring up another load. There were four loads in all, and to transport each of these from stage to stage, between each of the four halting-places between Somerset House and Batty Bay, a separate journey had to be made. The sufferings of the men—ill-fed, weak, stricken with snow-blindness, and in some cases lame—were such as it rarely falls to the lot of men to endure. By the end of May, however, all these arduous preliminary labours were successfully ended. On the 1st June Ross writes : " Having thus carried forward to the boats all that could be spared from our actual wants, that everything might be in readiness for moving, whenever the ice should open, we had now to occupy ourselves as we best could at our 'Somerset House,' and to make ourselves as content as might be, till it was time to move

again." That time was not far distant, and on the 25th of the month the removal of the remaining stores, and of the invalids, was begun. The system of successive journeys was again necessarily adopted, and during the first week of July the stores were got well forward. On Sunday, 7th July, the last divine service the hapless explorers hoped ever to attend at Somerset House was performed. "It was the commencement," says Ross, "of a farewell which all hoped would be eternal. . . . On Monday everything was ready, and we too were as prepared as we were anxious to quit this dreary place, as we hoped, for ever. Yet, with these hopes, there were mingled many fears; enough to render it still but too doubtful, in all our minds, whether we might not yet be compelled to return—to return once more to despair, and perhaps, but to die. To have been able confidently to say, Adieu, for ever! would have been indeed to render this a delightful parting."

After infinite exertion and suffering, the starved and emaciated men reached the boats at Batty Bay on the 12th, having brought their remaining stores and sick comrades with them. And now there was nothing to do but to pray for the speedy breaking up of the ice.

Weary and heart-sickening was the waiting for the expected change of weather during the long days of July, and the longer days of the first two weeks of August. On the 14th of that month a lane of water was, for the first time, seen leading to the northward, and the heart-sickness of hope deferred was superseded by feverish anxiety. Few of the wretched men slept that night, and at four in the morning all were up and busy with their hatchets cutting away at the ice that obstructed the shore. Soon after four the tide rose, and a fine westerly breeze springing up, the men launched their boats, embarked the stores, and by eight o'clock were fairly under way, free from the detested ice at last, and rocked once more by the swell of the sea-water.

No time now to think of past failures. "In the reproof of chance lies the true proof of man." They must succeed! If ever men made the conditions of nature bend to their will, these winter-worn seamen must do it now.

The boats soon rounded the north cape of Batty Bay, and striking a continuation of the lane of water, crossed Elwin's Bay at midnight. As they proceeded the open water increased in breadth, and at eight on the evening of the 16th, they reached the north-eastern cape of North Somerset Island, at the entrance to Regent's Inlet. Here they landed, pitched their tents, and rested for the night. At three in the morning they again embarked. The weather was calm; but the men took to the oars and rowed in an eastward direction across the mouth of the inlet. At noon they reached the edge of the packed ice through streams of floating pieces. A southerly breeze then sprang up, enabled them to round the pack, and

brought them into open water, and near the eastern shores of the inlet at three in the afternoon. "Thus," says Ross, "in a few hours we had at length effected that for which we had formerly waited in vain so many days, and which it is likely could not have been effected in any of the years that we had been imprisoned in this country."

How must this sudden change from their icy exile to open water, from a living death to active life, and to the near prospects of restoration to home and friends, have reawakened a whole world of thoughts, interests, affections, in the breasts of these men, who for over four years had been lost to name and fame! Ross partly reveals to us his own feelings, and in giving expression to them he no doubt represents the feelings of his companions. "Accustomed as we were to the ice," he says—"to its caprices, and to its sudden and unexpected alterations, it was a change like that of magic to find that solid mass of ocean which was but too fresh in our memories, which we had looked at for as many years as if it was fixed for ever in a repose which nothing could hereafter disturb, suddenly converted into water; navigable, and navigable *to us*, who had almost forgotten what it was to float at freedom on the seas. It was at times scarcely to be believed: and he who dosed to wake again, had for a moment to renew the conviction that he was at length a seaman on his own element; that his boat once more rose on the waves beneath him, and that when the winds blew it obeyed his will and his hand!"

On the 17th the boats ran merrily before the rising breeze along the eastern shores of the mouth of the inlet, and were obliged, as the wind rose into a gale, to take shelter on a beach near Cape York, after having made seventy-two miles. On the 18th the explorers, having been deserted by the wind, recommenced rowing, and made their way laboriously to the eastward, past Admiralty Inlet. On the 19th, after having rowed for twenty hours, the men were utterly exhausted, and Ross thought it best to land, and pitch the tents for a night's rest. In this neighbourhood they were detained by stormy weather until the 25th, when, again launching the boats, the men rowed to the eastward, across Navy Board Inlet, when, the men being exhausted with twelve hours' labour, it was found again necessary to land and pitch the tents. "At four in the morning" (of the 26th), writes Ross, "when all were asleep, the look-out man, David Wood, thought he discovered a sail in the offing, and immediately informed Commander Ross, who by means of his glass soon saw that it was in reality a ship. All hands were immediately out of their tents and on the beach, discussing her rig, quality, and course; though there were still some despairers who maintained that it was only an iceberg. No time, however, was lost; the boats were launched, and signals made by burning wet powder; when, completing our embarkation, we left our little harbour at six o'clock. Our progress was tedious,

owing to alternate calms, and light airs blowing in every direction ; yet we made way towards the vessel, and, had it remained calm where she was, should soon have been alongside. Unluckily, a breeze just then sprang up, and she made all sail to the south-eastward." On the point of being saved, and yet to be deserted after all ! But there is no time or place now for despair. There are whalers in the sound, and if the exhausted explorers will but persevere, they may still fall in with one of them. A few hours afterwards, another sail was seen to the northward, lying to, apparently for her boats. Shall this vessel vanish also like a phantom, and make the half-crazed castaways believe that all this open water and these ships are but a delusion—the delirium of swift-coming death—and that they are not sailing over free water, but still starving at Batty Bay, and awaiting the only release that is given to the utterly forsaken ? It would seem so, for the vessel now bears up under all sail, and it is evident that she is fast sailing away. Is all this a horrible vision—an unreal mockery, then ; and this width of water, these friendly sails, are they only of the stuff that dreams are made ? But now the wind lulls, and the illusory vessel hangs idle in the calm. "Give way, men !" is Ross's order, and the men of the "Victory" bend to their oars with a will, and row for their lives. They rapidly gain on the vessel, and after rowing for nearly an hour, they have the supreme happiness of seeing her heave to, with all her sails aback, and lower down a boat to meet them. The boat of the vessel soon came alongside, and the mate inquired whether the explorers had met with some misfortune and lost their ship. "This being answered in the affirmative," says Ross, "I requested to know the name of his vessel, and expressed our wish to be taken on board. I was answered that it was the '*Isabella*' of Hull, once commanded by Captain Ross ; on which I stated that I was the identical man in question, and my people the crew of the '*Victory*.' That the mate who commanded this boat was as much astonished at this information as he appeared to be, I do not doubt ; while, with the usual blunder-headedness of men on such occasions, he assured me that I had been dead two years. I easily convinced him, however, that what ought to have been true, according to his estimate, was a somewhat premature conclusion, as the bear-like form of the whole set of us must have shown him, had he taken time to consider, that we were certainly not whaling gentlemen, and that we carried tolerable evidence of our being 'true men, and no imposters' on our backs, and in our starved and unshaven countenances. A hearty congratulation followed, of course, in the true seaman style ; and, after a few natural inquiries, he added that the '*Isabella*' was commanded by Captain Humphreys, when he immediately went off in his boat to communicate his information on board, repeating that we had long been given up as lost, not by them alone, but by all England."

The mate, followed slowly by Ross's boats, reached the ship, and jumped up the side. His wondrous message must have been speedily told, for in a minute the rigging of the vessel was manned, and three ringing cheers saluted Ross and his companions as they rowed slowly forward to within a cable's length. "We were not long in getting on board my old vessel," says Ross, "when we were all received by Captain Humphreys with a hearty seaman's welcome."

As they stood on the trim deck of the "Isabella," the appearance of the explorers was pitiable in the extreme. "Unshaven since I know not when; dirty, dressed in the rags of wild beasts instead of the tatters of civilisation, and starved to the very bones," writes Ross; "our gaunt and grim looks, when contrasted with those of the well-dressed and well-fed men around us, made us all feel, I believe, for the first time, what we really were, as well as what we seemed to others. . . . But the ludicrous soon took the place of all other feelings. In such a crowd and such a confusion, all serious thought was impossible; while the new buoyancy of our spirits made us abundantly willing to be amused by the scene which now opened. Every man was hungry, and was to be fed; all were ragged, and were to be clothed; there was not one to whom washing was not indispensable, nor one whom his beard did not deprive of all English semblance. All—everything—was to be done at once; it was washing, dressing, shaving, eating, all intermingled; it was all the materials of each jumbled together; while in the midst of all these were interminable questions to be asked and answered on all sides—the adventures of the 'Victory,' our own escapes, the politics of England, and the news which was now four years old. But all subsided into peace at last. The sick were accommodated, the seamen disposed of, and all was done for all of us that care and kindness could perform. Night at length brought quiet and serious thoughts; and I trust there was not one man among us who did not then express, where it was due, his gratitude for that interposition which had raised us all from a despair which none could now forget, and had brought us from the very borders of a not distant grave, to life and friends and civilisation. Long accustomed, however, to a cold bed on the hard snow or the bare rock, few could sleep amid the comforts of our new accommodation. I was myself compelled to leave the bed which had been kindly assigned me, and take my abode in a chair for the night. Nor did it fare much better with the rest. It was for time to reconcile us to this sudden and violent change—to break through what had become habit, and to inure us once more to the usages of our former days."

On the 30th September the "Isabella," with the captain and crew of the "Victory" on board, sailed out of Davis Strait, and on the 12th October she reached Stromness. On the 19th Ross arrived in London, and having reported himself to the Secretary of the Admiralty, he set out at once for

Windsor, to place before the king an account of his voyage, and to lay at his feet the British flag that had been hoisted on the Magnetic Pole. "I had the honour," writes Ross, "of being most graciously received by his Majesty, who had always taken a deep interest in my enterprise, and who immediately granted me permission to inscribe his illustrious name and that of her Majesty the Queen, on my chart of the Magnetic Pole; and commanded me to place around it the names of the Royal Family and the reigning crowned heads of Europe." More valuable testimony, however, to the results of the voyage was supplied by the report of the Parliamentary Committee appointed to inquire into the merits and extent of Ross's discoveries. In this report the committee state that "they see no reason to doubt that Captain Ross nearly approached, and that Commander Ross actually reached, the Magnetic Pole;" and that "they can have no hesitation in reporting that a great public service has been performed." Besides proving that there was no sea-way leading west from the extreme south of Regent Inlet, and thus narrowing the field for future explorers, Ross discovered from six to seven hundred miles of coast-line, and performed important services in the advancement of magnetic science and meteorology.

Although the voyage of the "Victory" was the enterprise of one or more private individuals, the Lords of the Admiralty generously placed in Captain Ross's hands the sum of £4580 to pay to his junior officers and men the long arrears which, during this five years' voyage, were due to them. Neither Ross himself nor his nephew received, nor indeed could they expect, reward for their voluntary services. In 1834, however, Commander Ross was promoted to the rank of post-captain, and the honour of knighthood was conferred on Captain Ross. And thus ends the brief narrative of one of the longest, if not one of the most important, of Arctic voyages.

CHAPTER V.

OBJECTS OF THE EXPEDITION—AN INDIAN ENCAMPMENT—DISCOVERY OF GREAT FISH RIVER—OLD FRIENDS—A PECULIAR LANDSCAPE—THE PLAGUE OF SAND-FLIES—FORT RELIANCE ESTABLISHED—“RAISING THE DEVIL”—EXTREME SUFFERING OF INDIANS.

It is now well known that the casualties which take place on vessels engaged in Arctic exploration are not greater in number—due precautions being observed—than those which occur in other departments of the naval service. But this fact had not been demonstrated forty years ago, and the prolonged absence of Captain Ross from 1829 to 1833 gave rise to the greatest uneasiness throughout the country. At that time it was believed that no Englishman could possibly survive the rigours of four successive Arctic winters. Indeed, the general opinion in England with respect to the adventurers in the “Victory” was that they must have perished during the winter of 1831. In 1832, the probability, or rather the certainty, of their dreadful fate was the subject of general and anxious conversation not only in England, but throughout the Continent. England has always regarded the career of her great seamen with the utmost solicitude, and if in this instance the country had been mournfully forced to the conclusion that the explorers of the “Victory” had perished, we may form some idea of the anxiety that must have been felt by the friends and relatives of the missing men. Of these relatives, Mr George Ross, brother of the captain of the “Victory,” and father of Commander Ross, the first officer, had a twofold interest in ascertaining the fate of the explorers.

Among naval men, and especially among those who had some experience of Arctic navigation, the feeling of anxiety for Ross and his companions, and the desire to rescue them, or at least ascertain the conditions under which they were compelled to succumb, were universal. Dr Richardson, the loyal friend and comrade of Franklin, made an application to Government, offering his services as leader of a search expedition. His offer, however, was declined. Captain George Back, whose fortunes we have already followed as mate in the “Trent,” under Franklin, and as the companion of that great explorer in his first and second land expeditions, heard, while in Italy in the spring of 1832, a report to the effect that Ross and his com-

panions had perished ; but fully aware that in the event of the "Victory" having reached Fury Beach, there were stores enough there to provision the people of the ship for two or three years, in which case they might still survive, he hurried to England, prepared and resolved to offer to Government his services as leader of an expedition in search of them. Arriving in England in June 1832, he was informed that Mr George Ross, the nearest relative of the two chief officers of the "Victory," was anxious to meet with an officer properly qualified to lead a search party through America to the shores of the Polar Sea, and, if possible, along the western shores of Regent Inlet as far north as Fury Beach, where it was believed the survivors of Captain Ross's expedition would be found, or at least authentic tidings of the missing men be obtained. Mr George Ross was as glad to obtain the services of Captain Back as that famous traveller and navigator was to obtain the appointment, and a petition was forthwith laid before the king, asking his Majesty's sanction to the despatch of the projected expedition. A favourable answer was received from Lord Goderich, then Colonial Secretary, in which Mr George Ross was informed that the proposed expedition to ascertain the fate of the son and brother, had the approval of Government, and that the Lords Commissioners of the Treasury were prepared to grant the sum of £2000 in aid of the expenses of the expedition, provided that gentleman and his friends subscribed the remainder of the expense, which was estimated to amount to £3000. Subscription lists were immediately opened in London, Devonport, Dumfries, Edinburgh, Cheltenham, Exeter, Hull, Glasgow, Greenock, Liverpool, Newbury, Portsmouth, Plymouth, and Stranraer ; "and," writes Back, "it was gratifying to observe, in the rapid accumulation of our funds, the liveliness of the public sympathy in this disinterested project." Meantime, the governor and directors of the Hudson's Bay Company had become deeply interested in the enterprise, and had despatched directions to their agents in America informing them that such an expedition might be expected in the following spring, and directing the necessary preparations to be made for it. These gentlemen also placed 120 bags of pemmican, two boats, and two canoes at Captain Back's disposal ; and they formally took the expedition under their especial protection by issuing a commission under their seal to Captain Back, as its commander, thus furnishing that officer with credentials which empowered him to levy contributions of provisions and stores, etc., at any or all the stations of the Hudson's Bay Company.

The expedition was to consist of two officers—the commander and a medical officer, who should also take up the duties of naturalist—and eighteen men, two of whom should be boat carpenters. This force, it was proposed, should sail to Canada, and, starting from Montreal, should proceed northward, following the ordinary route of the fur traders of the Hudson's Bay



Company, by the Ottawa River, French River, the Great Lakes, Lake Winnipeg, etc., to Great Slave Lake, whence Indians should be employed as guides and hunters to accompany the party to the banks of the Thlew-ee-choh-desseth (fear not, reader; this dreadful name shall never again appear in this history, but the stream, of which this is the Indian name, shall hereafter be invariably spoken of as the Great Fish River, the translation in English of the name in use among the Indian tribes). Of the course of this river nothing was with certainty known to Back, further than that it rose to the east of Great Slave Lake. The theory respecting the stream, however, was that it flowed northward or north-eastward, and might thus bear onward the canoes of the explorers towards the southern reaches of Regent Inlet. A winter residence was to be built on the eastern extremity of Great Slave Lake, where, after having made a preliminary excursion to, and survey of, the Great Fish River, Back and his party should reside during the winter of 1833-34, and where, during the spring, he should set his carpenters to work upon such boats as he should find suitable for the navigation of the rapids and cascades, by which, as in the case of Coppermine River, the course of the stream might be interrupted. "Having passed the first winter," writes Captain Back, "it was proposed that we should start for the sea the moment the ice broke up; and if an opinion should prove correct, which I had been led to entertain from an inspection of the maps traced by the Indians, that the mouth of the river lay between the 68th and 69th parallels of latitude, and the 90th and 100th meridians of longitude, we should then be less than 300 miles from the wreck of the 'Fury' in Regent Inlet." Back was, of course, aware that it was Ross's intention to visit the wreck of the "Fury" that he might supply himself with stores and coals, and to return and winter beside it. Regent Inlet, therefore, and especially Fury Beach and its vicinity, was the locality in which the search for the lost explorers should naturally commence. If this search should prove unavailing, Back proposed to reascend Great Fish River, pass the winter at the fort by the shores of the lake, and revisit the Polar shores in the following spring, with the twofold object of continuing the search for Ross, and completing the as yet undiscovered coast-line westward from the mouth of Great Fish River to the Point Turnagain of Franklin.

For these purposes, as well as for the purpose of making magnetic and other observations, Back was provided with the best astronomical and other instruments. Guns, etc., were provided by the committee organising the expedition, and, finally, the entire enterprise was formally taken under the protection of Government, and constituted a national undertaking. Mr Richard King, a competent medical man, having been engaged to attend to the health of the party, and to make collections in natural history, the preparations for the outset of the expedition were regarded as completed.

On the 17th February 1833, Captain Back, accompanied by Mr King and three men, two of whom had gained experience of Arctic exploration under Sir John Franklin, sailed from Liverpool for New York. On the 9th April the party reached Montreal, where they were joined by four volunteers from the 6th battalion of Royal Artillery, and by a *corps* of Canadian "*voyageurs*." The route followed was the usual one by Lakes Huron, Superior, and Winnipeg. At Fort Alexander, on Lake Winnipeg, Captain Back met Governor Simpson, of the Hudson's Bay Company, from whom he learned that every aid was to be afforded to the exploring party, stores were to be thrown open for their use at all the forts, and the services of experienced guides, hunters, and interpreters were placed at their disposal. Having been joined *en route* by Mr A. R. M'Leod, with his wife and family, Back arrived with his party at Fort Resolution, on Great Slave Lake—which was to be the basis of his operations—on the 8th August.

Starting on the 11th August in a small canoe, accompanied by his servant, William Malley, one of the volunteer artillerymen, and by one Canadian *voyageur*, two half-breeds, and two Indians, Back paddled away from Fort Resolution across the waters of Slave Lake, in search of the source of Great Fish River—the stream that was to bear him in the following summer to the shores of the Polar Sea, and to the unknown area in which his search for the Rosses and the crew of the "Victory" was to be prosecuted. He had not proceeded far, when, landing to commence the survey of the east shore of the lake, he came upon an Indian encampment, which presented a picture of luxurious ease and gay contentment rarely seen in this remote region in the far north of British America. The occupants of the camp were busily and noisily employed in drying the meat of three recently killed moose-deer. "The successful hunters, apparently not a little vain of their prowess, were either lying at full length on the grass, whiffing the cherished pipe, or lounging on their elbows, to watch the frizzling of a rich marrow-bone, the customary perquisite of their labours. Women were lighting or tending the fires, over which were suspended rows of thinly-sliced meat—some screaming to thievish dogs making free with the 'hunt,' and others with still louder screams endeavouring to drown the shrill cries of their children, who, swaddled, and unable to stir, were half suffocated with the smoke; while to complete the scene, eight or ten boys at play were twining their copper-coloured bodies over and under some white bark canoes, like so many dolphins. Poor creatures, their happiness was at its full: at that moment they were without care, enjoying themselves according to their nature and capacity." How different this summer picture of plenty from the dreadful scenes of misery, starvation, and death which the explorer was fated to witness in the same region during the two following winters.

Continuing his voyage north-east, Captain Back discovered and named

the Simpson group of islands on the 14th August. The shores of these islands presented the most striking natural features this traveller, who was familiar with the most famous mountain ranges of Europe, had ever seen. On the left were round-backed hills, from which, at various points, rose columns of smoke from the fires of straggling hunters; "but the scenery to the right increased in grandeur and boldness; and never, either in Alp or Apennine, had I seen a picture of such rugged wildness. Rising to a perpendicular height of upwards of twelve hundred feet, the rocks were rent, as if by some violent convulsion, into deep chasms and rugged fissures, inaccessible to the nimblest animal. A few withered pines, grey with age, jutted their shrivelled arms from the extreme ridge of the abyss; and on one of these a majestic fishing eagle was seated, and there, unscared by our cries, reigned in solitary state, the monarch of the rocky wilderness. Salvator alone could have done justice to the scene." Continuing to coast the north shore of the lake, Back arrived, on August 18th, at the mouth of Hoarfrost River, a mountain stream broken by frequent and dangerous rapids, and flowing in a south-west direction into the eastern arm of Great Slave Lake. The ascent of this river, by numerous and difficult portages, in which repeated journeys required to be made for the transport of the canoe and provisions, was a work of most arduous labour, occupying four days. The route then led eastward among detached lakes, and on August 24th Back found himself again in continuous water, leading north and west by Clinton-Colden Lake and Lake Aylmer, which were discovered and named on the 26th. The high land on the north shore of Lake Aylmer is the watershed between Great Slave Lake on the south, and some river system, as yet unknown to Back, on the north-east. This river system the explorer fervently hoped might prove to be that of the unexplored and dreaded river of which he was in search—the Great Fish River. With the view of ascertaining this, Back sent away his three men, together with Maufelly, his Indian guide, on the 27th, to discover in which direction the drainage of the country ran, and to find out the lake in which the mysterious stream was supposed to have its source. The men had not returned on the 29th, and Back, taking his gun, and marching in a north-north-west direction over the Sand Hills, which formed the watershed already mentioned, went out to look for them. He had not proceeded far, when, ascending a hill, he beheld a rapid flowing with a northward course. "Crossing two rivulets," writes Back, "whose lively ripples ran due north into the rapid, the thought occurred to me that these feeders might be tributaries to the Great Fish River; and, yielding to that pleasant emotion, which discoverers, in the first bound of their transport, may be pardoned for indulging, I threw myself down on the bank, and drank a hearty draught of the limpid water. From a height a mile forward, the line of stream could be distinctly traced

into an open space, which, as it contracted, inclined to the north." His hopes were now realised. He had struck the head-waters of the river system of which he was in search ; and now before him extended the waters of the great stream, that had never before been seen by civilised man, and which offered to him a water-way to the Polar shores, and possibly to Regent's Inlet and to Fury Beach.

Starting on the morning of August 30th, Back resolved to explore the course of the newly-discovered river for a few miles, that he might be able to learn, from the character of its channel, what build of boat would be best adapted for its navigation. The portage from Lake Aylmer to the sheet of water which forms the source of the river, and which the discoverer named Lake Sussex, was less than a mile, and the height of the dividing land or watershed was no more than two feet. The country became more rocky as he proceeded, and irregular hills lined the banks of the stream. Passing Icy River, an affluent from the westward, a "narrow" brought Back into Musk-Ox Lake, an expansion of the stream. "And now," writes the traveller, "having arrived at the commencement of a series of rapids, which the canoe was too weak to run, and too rickety to be carried over, I had no choice but to stop, and rest satisfied with what had been achieved ; which, if not equal to my hopes, was still sufficient to cheer my companions, and lure them on to the relief, as we then supposed, of our long-suffering countrymen." The return journey was at once commenced, and on the 4th September the ascent of the river and of Lake Aylmer was completed, and the narrows of Clinton-Colden Lake reached.

Akaitcho, the chief of the Coppermine Indians, of whom mention has already been frequently made, as having on several occasions proved of signal service to Franklin, Back, and Richardson, in the two land expeditions conducted by the first of these famous discoverers, was still alive at the time when Back revisited, in 1833, the scenes of his early adventures in 1819-22. The old chief was hunting in the Slave Lake district when Back was conducting his search for the source of Great Fish River, and on the evening of the 4th September, two of his Indians, attracted by the smoke of the Englishman's fire, came into camp. Both were gaunt, emaciated, squalid—having evidently suffered much from destitution. "I knew them both," says Back ; "one, indeed, had been with me to the Coppermine River, on Sir J. Franklin's first expedition. With the usual apathy of their nature, they evinced no marks of satisfaction or surprise at seeing me ; but received their tobacco, and smoked it as coolly as if it had been given by some gentleman of the country, in the regular routine of a trading expedition. Their silence and seriousness soon, however, underwent an extraordinary change, when they heard some half-dozen expressions which I had been accustomed to use on the former occasion. They laughed immoder-

ately; kept repeating the words; talked quickly among themselves, and seemed greatly delighted. They were supplied with presents for my old friends Akaitcho and his brother Humpy," and the same evening they set out for the headquarters of their chief. On the shores of Artillery Lake, an expansion of the shallow water-course that connects Clinton-Colden Lake and Slave Lake proper, a number of dwarf pines were observed; and rejoicing in the prospect of a comfortable camp-fire—a rare luxury in these high latitudes—the voyagers landed and set up their encampment on the night of the 5th. The night was calm, and the sky was illumined by the coloured streamers of a bright aurora; but amid the stillness and the beauty of the night there were not wanting premonitions of swift-coming winter. From an immense height, out of the darkness overhead, came the cries of flocks of geese flying southward. Back now knew that the season was closing, and that the long Arctic night was gathering, and it was not without sincere gratitude that he thought of the home—now near at hand—which he knew was being erected for him, under Mr M'Leod's superintendence, at the eastern extremity of Slave Lake.

The river by which Artillery Lake discharges its waters into Great Slave Lake, is interrupted by numerous and dangerous rapids. Three of these were safely run, but in running a fourth the bark canoe was fixed against a sharp rock, and seriously cut. Fortunately it twirled round, wore off the rock, and floated till it was paddled to the shore. The Indians now declared it impossible to proceed down the foaming stream, and Back ordering them to place the canoe *en cache*, divided the baggage among the men, and set out to finish the remainder of the journey on foot. The path was difficult and perilous, and, on the evening of the 6th, when the party halted to encamp at sunset, the country around presented the most singular and striking aspect. "It was a sight," says Back, "altogether novel to me; I had seen nothing in the Old World at all resembling it. There was not the stern beauty of Alpine scenery, and still less the fair variety of hill and dale, forest and glade, which makes the charm of an English landscape. There was nothing to catch or detain the lingering eye, which wandered on without a check, over endless lines of round-backed rocks, whose sides were rent into indescribably eccentric forms! It was like a stormy ocean suddenly petrified. Except a few tawny and pale-green lichens, there was nothing to relieve the horror of the scene, for the fire had scathed it, and the grey and black stems of the mountain pine, which lay prostrate in mournful confusion, seemed like the blackened corpses of departed vegetation. It was a picture of 'hideous ruin and combustion!'"

Early on the morning of the 7th the encampment was broken up, and the party proceeded, walking in Indian file and without the exchange of a syllable. Every man was too busily and anxiously engaged picking his way on

the pathless, stormy hill-side, to care to speak. An incident soon occurred, however, which broke the spell of silence. The moving antlers of a fine buck were seen behind a point at the distance of thirty yards. It was soon brought down, and the haunch, which was covered with a rich layer of fat two inches thick—the luxury of luxuries in this climate—afforded a magnificent breakfast. But the march so prosperously begun, had its drawbacks. We are accustomed to regard the plague of mosquitoes as an infliction experienced in tropical climates only. But during the brief but bright summer of Polar countries myriads of these are called into being, to the all but intolerable torment of travellers. And quite as bad as the mosquito is the smaller but still more vicious sand-fly. Swarms of these creatures attacked Back and his party on their march to Slave Lake, and stung them almost into madness. “As we dived into the confined and suffocating chasms,” writes Back, “or waded through the close swamps, they rose in clouds, actually darkening the air: to see or to speak were equally difficult, for they rushed at every undefended part, and fixed their poisonous fangs in an instant. Our faces streamed with blood, as if leeches had been applied; and there was a burning and irritating pain, followed by immediate inflammation, and producing giddiness which almost drove us mad. Whenever we halted, which the nature of the country compelled us to do often, the men, even the Indians, threw themselves on their faces and moaned with pain and agony. My arms being less encumbered, I defended myself in some degree by waving a branch in each hand; but even with this, and the aid of a veil and stout leather gloves, I did not escape without severe punishment. For the time I thought the tiny plagues worse even than mosquitoes.”

On the evening of the 7th Back had reached the eastern extremity of Great Slave Lake, at the spot where he had requested Mr M'Leod to build a winter residence; and it was with much gratification that, as he marched along, he heard the sound of the woodman's axe. Guided by the branchless trunks which lay along the earth, he came to a bay “where, in agreeable relief against the dark green foliage, stood the framework of a house.” The explorers approached in single file to where Mr M'Leod was seen walking under the shade of the trees, “and,” says Back, “with our swollen faces, dressed and laden as we were—some carrying guns, others tent-poles, etc.—we must have presented a strangely wild appearance, not unlike a group of robbers on the stage.” Mr M'Leod had arrived on this spot on the 22d August with four men, and had immediately commenced to erect the log-house. He had set his nets in the lake, and the quantity of fish he had taken seemed to prove that in selecting this spot for winter quarters, in the hope of establishing a productive fishery here, they were not likely to be disappointed. He had also bought a quantity of dried meat from the Indians. Of all these measures Back cordially approved.

“The following day being Sunday, divine service was read,” writes the leader of the expedition, who also acted as chaplain, “and our imperfect thanks were humbly offered to Almighty God, for the mercies which had been already vouchsafed to us ; and though, in this imperious climate, with everything to do, time was certainly precious, yet feeling that the first opening of the sacred volume in this distant wilderness ought not to be profaned by any mixture of common labour, I made it a day of real quiet and repose.”

On the 16th September Mr King arrived at the winter quarters with two boats laden with a heavy cargo of stores for the coming season, and bringing with him the remainder of the men engaged for the expedition. Back now divided his men into parties, and appointed them to regular tasks—felling trees, squaring them for beams and rafters, sawing them into slabs and planks, dressing blocks of granite for building purposes, and collecting mud and grass to be used as plaster, were separate occupations carried on by groups of men told off for the purpose. “It was an animated scene,” says Back ; “and set off, as it was, by the white tents and smoky leather lodges of the Indians, contrasting with the mountains and green woods, it was picturesque as well as interesting.” The building of the winter establishment, observatory, etc., proceeded apace, and the name given to this temporary house in the bleak desert, was Fort Reliance, “in token,” says Back, “of our trust in that merciful Providence, whose protection we humbly hoped would be extended to us in the many difficulties and dangers to which these services are exposed.” But the destitute Indians of the district had found out the house long before it was finished. The sick and miserable soon began to flock in from all quarters, in the hope of obtaining from the white man what the white man could only purchase from the Indian hunters. It might be supposed that these hunters should have supported their own sick and infirm kinsfolk ; but in the Indian, “the savage virtues of our race” are not strong. So long as he is healthy and vigorous himself, he moves about from place to place with almost as much speed as the deer and oxen he pursues, trusting to the humanity of the white man to succour the diseased or starving members of his family. Back was resolved that no party coming to Fort Reliance should leave any of its members behind ; but in spite of all his efforts he soon found himself hampered with many helpless dependants. This was all the more distressing as the fishery on the lake proved a failure, and little or no meat could be purchased from the Indians.

In the course of October the observatory, a building twelve feet square, in the construction of which no iron, not even a nail, had been used, was completed ; and here Captain Back, assisted by Mr King, took regular observations for the magnetic force and dip. The season was unusually mild,

and owing to this circumstance the deer, which in ordinary seasons, migrated southward from their feeding grounds in the north, still remained in their distant districts, and disappointed the Indians who were lying in wait for them on the southward route. The sufferings of the natives from want of food at this season were consequently very great; and as they could not understand the object of the observatory, or the use of the instruments, they began to associate these with their misfortunes, and eventually to speak of them as the causes of the scarcity of the deer. Nor were they singular in this opinion, for on one occasion, when taking the dip, Back and King were cautiously watched by two of the *voyageurs*, who, hearing only a mysterious word at intervals, as "Now! Stop!" etc., followed by perfect silence, looked at each other, shrugged their shoulders, and, turning hastily from the railing which surrounded the observatory, joined their companions, and informed them that they had seen the white chief "raising the devil."

On the 5th November the dwelling-house at Fort Reliance was finished. It was fifty feet long and thirty broad, was divided into four square rooms, with a hall in the centre for the reception and accommodation of the Indians. Towards the end of the month there was little food at the fort, with the exception of the stores for the expedition of the coming summer, which Back could not afford to use. The distress at this time, especially among the Indian refugees, was very great. Fortunately, Akaitcho arrived with a supply of meat, and the sufferings of the people were for a time allayed. Thus with alternating seasons of extreme want and temporary plenty, the weeks and months wore on. But during that winter of 1833-34 the sufferings of the wretched Indians were indescribable, and instances of cannibalism occurred. "Our hall," writes Back, "was in a manner filled with invalids, and other stupidly dejected beings, who, seated round the fire, occupied themselves in roasting and devouring small bits of their reindeer garments, which, even when entire, afforded them a very insufficient protection against a temperature of 102° below the freezing point," or 70° below zero."

The degree of cold experienced at Fort Reliance during January and February 1834 is perhaps the lowest ever recorded in these regions. On the morning of January 17th the mean temperature was 70° degrees below zero. A surface of four inches of mercury, exposed in a common saucer, became solid in two hours with a temperature of *minus* 57°. On the 4th February the registered temperature was - 60°, and, as a fresh breeze was blowing, the cold was nearly insupportable. Ink and paint froze, and the sextant cases and boxes of seasoned wood split. "On one occasion," writes Back, "after washing my face within three feet of the fire, my hair was actually clotted with ice before I had time to dry it." During this terrible weather many of the Indians died from want and exposure.

CHAPTER VI.

INTELLIGENCE OF THE RETURN OF CAPTAIN ROSS AND HIS CREW—EXPLORATION OF GREAT FISH RIVER—RUNNING THE RAPIDS—"IS THIS A TIME FOR PRAYING?"—THE POLAR SEA REACHED—CONCLUSION OF VOYAGE.

ON the 26th March a messenger from York Factory arrived at Fort Reliance with a packet of letters which Back had been expecting daily for six weeks. Delivering his packet, the bearer stated that he believed he had only brought half of the letters, and that the other half had been sent forward from Fort Resolution a month previously under the charge of a Canadian and an Iroquois, accompanied by Augustus, the faithful Eskimo interpreter who had so loyally served Franklin and Back in their former journeys. Little Augustus had heard that Back was in the country, had resolved to join him, and had walked all the way from Hudson's Bay to Fort Resolution with that intention. Setting out with the Canadian and Iroquois (the letter-carriers), Augustus commenced the journey to Fort Reliance. The three, however, lost their way; two of them returned to Fort Resolution, but Augustus, anxious to meet his old friend, went forward alone. Nothing had since been heard of him, and, as he carried only a few pounds of provisions with him, it was feared that he had perished. Back's anxiety for the fate of the affectionate interpreter was intense, but it was soon to be allayed. On the 25th April, when the inmates of Fort Reliance were sitting together, talking about absent friends, a loud rapping was heard at the door. "The permission to come in," says Back, "was unnecessary, for the person followed the announcement before the words could be uttered, and with the same despatch, thrust into my hands a packet which a glance sufficed to tell me was from England. 'He is returned, sir!' he exclaimed, as we looked at him with surprise. 'What! Augustus! Thank God!' I replied quickly. 'No! Captain Ross, sir! Captain Ross has returned!' 'Eh? are you quite sure? Is there no error? Where is the account from?' The man paused, looked at me, and pointing with his finger, said, 'You have it in your hand, sir.' It was so; the packet had been forgotten in the excitement and hurry of my feelings. Two open extracts from the *Times* and *Morning Herald* confirmed the tidings. . . . To me the intelligence was peculiarly gratifying, not only as verifying my previously expressed opinions, but as demon-

strating the wisdom as well as the humanity of the course pursued by the promoters of our expedition, who had thereby rescued the British nation from an imputation of indifference which it was far indeed from meriting. In the fulness of our hearts, we assembled together and humbly offered up our thanks to that merciful Providence which, in the beautiful language of Scripture, hath said, 'Mine own will I bring again, as I did sometime from the deeps of the sea.' The thought of so wonderful a preservation overpowered for a time the common occurrences of life. We had but just sat down to breakfast, but our appetite was gone, and the day was passed in a feverish state of excitement. Seldom indeed did my friend Mr King or I indulge in a libation, but on this joyful occasion economy was forgotten. A treat was given to the men, and for ourselves the social sympathies were quickened by a generous bowl of punch."

The fact that Captain Ross and the crew of the "Victory" had been rescued in Barrow Strait had necessarily some effect upon Captain Back's plans for the future. The principal object of the expedition under his command had been unexpectedly accomplished; but the secondary objects, which were of great importance from a geographical and scientific point of view, were still to be achieved. Already something had been done. Back had discovered and surveyed the source and head-waters of a great river previously unknown to civilised men, and known to the Indians of Slave Lake only by repute as an unnavigable stream, broken by impracticable rapids and by fearful cascades, and the mysterious lower course of which was regarded with dread, from the circumstance that it lay somewhere in the lands of the hostile and treacherous Eskimos. To open up the course of this river, to discover its mouth in the Polar Sea, and thence to track the sea-coast westward to the Point Turnagain of Franklin, and thus materially aid in completing the North-West Passage—these were the main objects which Back's expedition was organised to accomplish, and for the accomplishment of which he now commenced active preparations.

In the meantime, however, one word about the fate of Augustus. Months after the poor Eskimo had set out from Fort Resolution to join his friend Mr Back, his remains were found at no great distance from the fort. "It appeared," says Back, "that the gallant little fellow was retracing his steps to the establishment, when, either exhausted by suffering or privation, or caught in the midst of an open traverse in one of those terrible snowstorms which may be almost said to blow through the frame, he had sunk to rise no more. Such was the miserable end of poor Augustus!—a faithful, disinterested, kind-hearted creature, who had won the regard, not of myself only, but of Sir John Franklin and Dr Richardson also, by qualities which, wherever found, in the lowest as in the highest forms of social life, are the ornament and charm of humanity."

Absolved by the timely return of the explorers of the "Victory" from taking with him a strong rescue party and a heavy load of provisions, Back abandoned the idea of fitting out two boats for his summer voyage, and determined to explore the newly-discovered river, and attempt the coast-voyage of the Polar Sea in one boat, with a crew of ten picked men. The limited number would be more than compensated by the quality of the men who were to compose it. Every man would be a host in himself—the *voyageurs* in the boat should be men of great experience, strength, and skill; and the hunters, who should precede the boat, under Mr M'Leod—himself an excellent shot—should be trustworthy and industrious. The voyage was to last three months; and in the meantime the pemmican and baggage had been transferred to a point on the west shore of Artillery Lake, where the boat was being constructed, and from which the voyage was to start; and a number of Indians had been engaged to carry the stores, instruments, etc., across the dividing land or watershed to the upper waters of Great Fish River, a distance in direct line of 115 miles. On the 5th June, Mr M'Leod, accompanied by his staff of hunters, set out in advance from Fort Reliance, and all that was now left to be done was to secure the house against weather and intruders. With this view, a platform was erected in the hall, on which the remainder of the stores were deposited, and carefully secured against wet and marauding wolvereens. Other articles were lowered into a cellar, which was closed and nailed down. The boxes were got together and covered with a tarpaulin, and a small quantity of brandy was securely and effectually hidden away, to be used in case of emergency on the return of the party. Finally, the windows and doors were blocked up, and then Captain Back, Mr King, and four attendants with dogs, turned their backs upon the fort on the 7th June, and commenced the march eastward to Artillery Lake.

On the evening of the second day, Back reached the bay on Artillery Lake, where his carpenters had been at work on the boats. The one selected for the voyage was 30 feet over all, and 24 feet keel. It was placed on runners, plated with iron; and on the morning of the 10th June the expedition started, a party dragging the boat over the ice which still covered the lake, and the others dragging each a burden of about 100 lbs. on a small sledge. The journey to the source of Great Fish River was accomplished on the 27th June. At one p.m. on the following day the boat was launched on the stream, and the difficult navigation of the shallow and impetuous torrent was commenced. At the beginning progress was exceedingly slow and laborious, rapid succeeding rapid every few miles. The adventure of the 9th July may be taken as representative of the class of incidents which were of daily occurrence during the voyage. On that day, as the boat slowly advanced, an island was seen near the centre of the river, from the sides of which

suspicious-looking columns of mist were seen to rise. There was evidently a fall ahead, and it was necessary to land and inspect it. The baggage was carried down below the fall, and afterwards the boat, managed with splendid dexterity and nerve by Sinclair, the bowman, a half-breed, and M'Kay, the steersman, a Highlander, was carried through the rush of the fall, and made to sweep into the eddy "with the ease and buoyancy of a water-fowl." At this spot the stream was a quarter of a mile broad; but it soon narrowed to two hundred yards, and, running with a winding course, formed a series of no less than five rapids, to the turbulence of which, two tributaries that joined the main stream here contributed not a little. A still sheet of water now brought the boat to a long and appalling rapid, full of rocks and huge boulders; the sides hemmed in by a wall of ice, and the current flying with the velocity and force of a torrent. "The boat," says Back, "was lightened of her cargo, and I stood on a high rock, with an anxious heart, to see her run the rapid. I had every hope which confidence in the judgment and dexterity of my principal men could inspire; but it was impossible not to feel that one crash would be fatal to the expedition. Away they went with the speed of an arrow, and in a moment the foam and rocks hid them from my view. I heard what sounded in my ear like a wild shriek, and I saw Mr King, who was a hundred yards before me, make a sign with his gun and run forward. I followed with an agitation which may be conceived, and, to my inexpressible joy, found that the shriek was the triumphant whoop of the crew, who had landed safely in a small bay below. I could not but reward them with a glass of grog apiece, and they immediately applied themselves to the fatiguing work of the portage, with as much unconcern as if they had only crossed a mill-pond." The rapid thus successfully run, named Malley's Rapid, by Back, is in longitude about $107^{\circ} 20' W$.

On July 13th, the sun shone out for the first time for nine days, which enabled Back to take observations, and afforded his men an opportunity, while he was thus engaged, to go after the deer that were feeding in the neighbourhood in considerable numbers. In less than an hour the men returned with four fine bucks. The change from pemmican to fresh food was agreeable enough; but as Back was provided with abundance of provision for his small party, and as the boat was already too heavily laden, he forbade all such hunting excursions in the meantime.

On the 17th July, the mouth of Jervois River, a large affluent from the right, was passed, and observations were taken in $65^{\circ} 9' N.$, and $103^{\circ} 33' W$. At this point the threatening appearance of the curling waves, and the roar and gloom of a defile, along which the course now lay, suggested the necessity of reconnoitring a little in advance, and finding out what dangers might await the voyagers among the frowning rocks which, overlapping as they receded in the distance, seemed either to engulf the stream or to forbid

a passage. After a halt, the navigation of the rapids was recommenced, and the boat was soon whirling about in the circling pools; and but for the amazing strength of the Highlander M'Kay, who steered, it "must inevitably have been crushed against the faces of the protruding rocks." "As we entered the defile," continues Back, "the rocks on the right presented a high and perpendicular front, so slaty and regular that it needed no force of the imagination to suppose them severed at one great blow from the opposite range, which, craggy, broken, and overhanging, towered in stratified and many-coloured masses far above the chafing torrent. There was a deep and settled gloom in the abyss—the effect of which was heightened by the hollow roar of the rapid, still in deep shade, and by the screaming of three large hawks, which, frightened from their eyrie, were hovering high above the middle of the pass, and gazing fixedly upon the first intruders on their solitude; so that I felt relieved, as it were, from a load, when we once more burst forth into the bright sunshine of day. The boat was then allowed to drive with the current, the velocity of which was not less than six miles an hour, among whirlpools and eddies, which strongly buffeted her about. The men, glad to rest from their oars, were either carelessly looking at the objects which they passed, or whiffing the ever-welcome pipe, when something was seen swimming a little ahead. As we nearly touched it in passing, the bowman, almost without looking, stretched out his hand to grasp it, but drew it in again as quick as lightning, and, springing up for the boat-hook, called out, 'D——n it, it has bit me! it's a fox!' The fox immediately reached the bank in safety, where he began skipping about with much gaiety, as if enjoying the trick he had played off on the unsuspecting boatman."

Proceeding onward down the river, which now broadened and deepened until it assumed nearly the dimensions of the Mackenzie, Captain Back discovered two important affluents from the right, which he named respectively M'Kinley and Buchanan Rivers. Below these streams the river varied in breadth from a quarter of a mile to a mile and a half; and, after having flowed in a generally eastward direction, it now, to Back's great delight, made a bend to the north, the region of his hopes. On the 18th July, the captain ascended a hill some distance from the river, and was puzzled to discern several extensive sheets of water in almost opposite bearings, one of them being due south. Owing to the intervening rocks and uneven ground, it was impossible to decide whether these were lakes, or different reaches of one continuous water. The difficulty was only to be solved by letting the boat run with the current of the stream; and issuing orders to this effect, Back was soon carried into a wide lake, with a clear and uninterrupted horizon, but glimmering with firm ice. This expansion of the stream the discoverer named Lake Pelly. Crossing the lake, the explorers were carried into another similar expansion, in which the unwelcome glare of ice was

again too clearly visible. Towards evening all hope of immediate progress was precluded by extensive and unbroken fields of ice stretching to the extreme point of vision. It being impossible to get through the ice, there was only one alternative for the indomitable explorers—they must go over it. And over it they did go, unloading and dragging the boat until they again reached open water, and were again able to launch her. On the evening of the 19th, they had reached lat. 65° 48' N., long. 99° 40' W. On the following day, Lakes Garry and Macdougall were discovered and named. Emerging from the latter lake, the river curved to the north, and the whole force of the water glided smoothly but irresistibly toward two stupendous rocks of gneiss, from five to eight hundred feet high. The hollow roar sounding from the distance warned the voyagers that there was danger ahead; and having secured the boat in a small curve, near which the river disappeared in its descent, sending up clouds of spray, an examination of this threatening part of the course was made. It was found that at this spot the river made a succession of falls and cascades. The stream was here four hundred yards broad, and its navigation was rendered extremely perilous by the islands and rocks of its channel, around which the waters surged and foamed “with a roar that was heard far and wide. The space occupying the centre, from the first descent to the largest island, was full of sunken rocks of unequal height, over which the rapid foamed, and boiled, and rushed with impetuous and deadly fury. At that part it was raised into an arch; while the sides were yawning and cavernous, swallowing huge masses of ice, and then again tossing the splintered fragments high into the air. A more terrific sight could not well be conceived, and the impression which it produced was apparent on the countenances of the men.” It was impossible to carry down the boat on shore; for even when unloaded, she was too heavy for the men to lift. There was, therefore, no alternative but to try the falls, and steadily and silently the resolute men went about making the preparations for the fearful attempt. Double lines of rope from the bow and stern were held on shore by the most careful of the men, and M'Kay and Sinclair took their accustomed places at the stern and bow, each with a pole in his hands, to keep the boat from dashing against the rock. The perilous descent began, and often was the frail boat dashed headlong toward the rocks, as often, however, to swerve and pass them in obedience to the guidance of the intrepid and skilful men who navigated her. “Still,” says Back, “amongst the many descents, she did not escape without some very severe shocks, in one of which the remaining keel-plate was entirely stripped away; but cool, collected, prompt to understand and obey the mutual signs which each made to the other with the hand—for their voices were inaudible—the gallant fellows finally succeeded in guiding her down in safety to the last fall.”

But the narrowest escape of the whole journey was experienced on July

25th. The boat had then reached about 96° 40' W., and a mile of heavy and dangerous rapids was before her. Again she was lightened, and every precaution was taken as before ; but so overwhelming was the rush and whirl of the water, that she and those in her were twice in the most imminent danger of being engulfed in the hollows of the rapid. “ It was in one of those singular and dangerous spots, which partook of the triple character of a fall, rapid, and eddy, in the short space of a few yards, that the crew owed their safety solely to an unintentional disobedience of the steersman’s directions. The power of the water so far exceeded whatever had been witnessed in any of the other rivers of the country, that the precautions successfully used elsewhere were weak and unavailing here. The steersman was endeavouring to clear a fall and some sunken rocks on the left, but the man to whom he spoke misunderstood him, and acted contrary to the instructions given. And now seeing the danger, the steersman swept round the boat’s stern : instantly it was caught in an eddy to the right, which, snapping an oar, twirled the boat irresistibly broadside on ; so that for a moment it seemed uncertain whether the boat and all in her were to be hurled into the hollow of the fall, or dashed stern foremost on the sunken rocks. Something, perhaps wiser than chance, ordained it otherwise ; for how it happened no account can be given, but so it was that her head swung inshore towards the beach, and thereby gave Sinclair and others an opportunity of springing into the water, and thus, by their united strength, rescuing her from her perilous situation. Now, had the man to whom the first order was given understood and acted upon it, no human power could have saved the crew from being buried in the frightful abyss. Nor yet could any blame be justly attached to the steersman : he had never been so situated before, and even in this imminent peril his coolness never forsook him. At the awful moment of suspense, when one of the crew, with less nerve than his companions, began to cry aloud for aid, M’Kay, in a still louder voice, exclaimed, ‘ Is this a time for praying ? *Pull your starboard oar !* ’ ‘ Heaven helps them who help themselves,’ seems to have been the creed of this stout-hearted Highlander.”

An observation taken at noon on the 26th, gave latitude 66° 6', “ nearly abreast of a picturesque and commanding mountain, with steep, sloping sides to the south-west, where musk-oxen were feeding, but to the northward broken into fearful precipices and overhanging cliffs, inaccessible to the foot of man. It was by far the most conspicuous eminence we had seen ; and from some fancied likeness, the people said, ‘ Here’s Hoy’s Head. Give way, boys, we are not far from the sea ! ’ The remark took me in imagination to Auld Reekie ; and I called the hill Mount Meadowbank, in honour of the learned lord of that name.”

For some time Back had been aware, from remains of Eskimo encamp-

ments seen on the shore, that he had now arrived in that people's country; and on July 28th he had an interview with a number of them, who had come down to the shore, evidently with hostile intentions, but were speedily pacified with a few simple presents. On July 29th the explorers were again afloat, and at noon of that day they had reached lat. $67^{\circ} 7'$, long. $94^{\circ} 39'$. A majestic headland in the extreme distance north was named Victoria Headland; and on coming abreast of this promontory, Captain Back knew that he had reached the mouth of Great Fish River, and that before him extended the waters of the Polar Sea. The exploration of the great river was accomplished after running for five hundred and thirty geographical miles through an iron-ribbed country, without a single tree on its banks, and interrupted by no less than eighty-three falls, rapids, and cascades. The latitude of the mouth of the river was ascertained to be $67^{\circ} 11'$; its longitude $94^{\circ} 30' W$. The rush of the river meeting a fresh breeze from the ocean raised such a commotion that Back was glad to take refuge in an inlet to the south of Victoria Headland, which he named Cockburn Bay. A number of days were spent on the coasts at the mouth of the river to little purpose. It was Back's earnest hope that he might be able to sail westward along the shore to Point Turnagain; but the ice-hampered shore to the west of the mouth of the river rendered the attempt altogether vain. Imprisoned here by ice, suffering from continuous wet weather, and from the depression arising from inaction and from a hopeless prospect, the crew began to show signs of declining health, and Back began to perceive that he had arrived at the limit of his explorations.

After discovering, naming, and visiting all the more striking natural features at, around, and opposite the mouth of Great Fish River—hereafter to be known as Back's River, from the name of its discoverer and explorer—and after many unavailing attempts to penetrate to the westward, the captain was convinced that to delay his return would only be unnecessarily to expose his men, and to overstep the limit of time set down in his official instructions as the date at which he should commence to retrace his steps. This conviction was pressed upon him by the peculiarly dismal and hopeless character of his situation and surroundings. The morning of the 14th August was ushered in by a wet fog, in which no object was distinctly visible at the distance of eighty or ninety paces. At the same time, a breeze sprang up and packed the seaward body of ice. For some time he had thought of dividing the party, leaving four to protect the boat and property, and going on with the others along the shore towards Point Turnagain. "But this scheme," he writes, "was completely frustrated by the impracticability of carrying any weight on a soil in which at every step we sunk half-leg deep; destitute of shrubs or moss for fuel, and almost without water; over which we must have travelled for days to have made even a few miles

of longitude, and when, finally, if sickness had overtaken any one, his fate would have been inevitable. Thus circumstanced, therefore, and reflecting on the long and dangerous stream (combining all the bad features of the worst rivers in the country) that we had to retrace, . . . I felt that I had no choice, and assembling the men, I informed them that the period fixed by his Majesty's Government for my return had arrived ; and that it now only remained to unfurl the British flag, and salute it with three cheers in honour of his most gracious Majesty, whilst his royal name should be given to this portion of America, by the appellation of William IV.'s Land." It was with satisfaction, not to say delight, that this intimation was received. King William's Land, opposite the mouth of Great Fish River—not one of the least of Back's discoveries—was duly named, and a dram concluded the ceremony.

The return voyage up the river was commenced on the 21st August, and prosecuted without interruption to its close. On the 17th September, having on that day arrived at the source of the river, and commenced the portage across the watershed to Lake Aylmer, Back had the great pleasure of again meeting Mr M'Leod, accompanied by six men. Delayed for two days by unfavourable weather, Captain Back set out again on the 20th September, crossed Lakes Aylmer and Clinton-Colden, and encamped on the shore of Artillery Lake. On the 27th the whole party arrived at Fort Reliance, "after an absence of four months ; tired indeed, but well in health, and truly grateful for the manifold mercies we had experienced in the course of our long and perilous journey." The house was found still standing, but dreadfully out of repair, and after a rest of a few hours, Back and his companions were obliged to commence the labour of restoring it, and rendering it habitable.

The winter months of 1834-35 passed over uneventfully, and on 21st March, bidding farewell to his friend M'Leod, and to the region of his discoveries, Captain Back set out for, and shortly reached, Fort Resolution, on his return to England. From this point his progress was unmarked by any unusual or noteworthy incident. On the 17th August, he took ship from New York for England, where he arrived on the 8th September. Mr King, with eight of the men, reached England in October.

CHAPTER VII.

BACK'S VOYAGE IN THE "TERROR," 1836-37—BESET FOR A YEAR—SAILING IN ICE
—BEATEN BY ICE-WAVES—A SCENE OF RUIN—CANNONADING THE ICE—
RELEASE AND RETURN.

ATTEMPTS to complete the coast-line of North America from Regent Inlet to Point Turnagain had been made successively by Parry, Ross, Franklin, and Back, and though Commander Ross in crossing Boothia Isthmus and exploring parts of the coast of King William Sea, and Captain Back in discovering the *embouchure* of the Great Fish River and King William's Land and all but connecting his discoveries with those of Commander Ross, had done much towards simplifying that problem, they had not yet arrived at its solution. The completion of the coast-line between the points named was one of the cherished objects of the Government of the time; for in its achievement men seemed to see the North-West Passage an accomplished fact. Accordingly, when the Geographical Society urged upon Government the expediency of fitting out another expedition with this object, the project was favourably received, and Captain Back was appointed to carry it out.

For the purpose of the new expedition, H.M.S. "Terror" was put in commission, and Captain Back appointed to the command on May 13, 1836. The vessel had a short time previously been doubled and strengthened with massive iron and copper fastenings. Three whale boats, at once large and light, were built, and attached to the "Terror," and three sledges, so contrived as to be equally well adapted for iron runners or for wheels, were specially constructed for the transport of stores over land. Clothing, provisions, and general stores were provided on a more complete scale than had ever been before attempted, and an elaborate warming apparatus, consisting of an iron pipe extending nearly all round the ship, and intended to be charged with hot brine, was fitted to the interior of the vessel. The *personnel* of the expedition consisted of sixty officers and men, and among the former, it is interesting to note that Robert M'Clure, who, some years afterwards, was the first officer who actually accomplished the North-West Passage, and Graham Gore, afterwards first lieutenant in the "Erebus" in Franklin's last

and fatal expedition, served as mates. Captain Back's instructions were to proceed to Hudson Strait, thence to make the best of his way to the shores of the American continent, either by the north shore of Southampton Island, and through Frozen Strait, or by rounding the southern shores of the same island, and proceeding up Rowe's Welcome to Wager River or Repulse Bay. Having arrived at Repulse Bay or its vicinity, Back was instructed first to place the "Terror" in secure quarters for the winter, and then, as soon as the season should permit, to strike across the isthmus (afterwards known as Rae Isthmus) connecting Melville Peninsula with the mainland. It was believed that three days' journey might enable him to cross the isthmus, and this being accomplished, he would find himself on the extreme south shore of Regent Inlet, whence he should work his way in the whale boats and sledges along the coast westward to Point Turnagain.

On the morning of the 14th June 1836, the "Terror" was towed down the Thames. American waters were reached towards the close of July, and Davis Strait was crossed under a steady breeze from the south-west on the 28th of that month. On the 29th "the day was beautifully fine, and to those who were novices in this sort of navigation, nothing could exceed the interest of the scene—the tall ship with all her sails set threading her graceful way through the masses of ice, upon a sea as smooth as an inland lake." But this halcyon weather was not of long continuance. On the 1st August the "Terror" opened up Hudson Strait; but detained by fog and hampered with ice, she arrived at the western extremity of the strait only on the 14th. Pushing on north-west, on the morning of the 23d Back was heading for Frozen Strait, and heard with gratification the announcement of Baffin Island on the N.N.W. with Southampton Island on the west. Already, however, he had suffered much from the ice, and now the frozen barrier seemed to forbid any farther advance. "Had there only been a channel even as wide as a brook," writes Back, "we should soon have got to the strait; but the scene around us now presented an apparently solid sea of ice, thrown up in many parts to the height of eighteen feet, and so rugged, peaked, and uneven, as to bid defiance to any attempt even to walk over it. . . . Cheerless indeed was the prospect, for, excepting within a few feet of the ship, where the black streaks of water looked like inky lines on a fair sheet of paper, far as the eye could reach all was ice." On the 25th the ice seemed somewhat less compact, and after warping to the edge of the floe where the ice was less pressed together, Back made sail and bored through towards the south-west, in the hope of getting nearer to Southampton Island. The light air of wind now fell off, and the "Terror" hung motionless among the ice. Many an anxious glance was now cast upward at the vane on the masthead, and whistling for a wind was almost the only employment of the crew. At this time the weather was lovely, 44°

being registered in the sun, and about 36° in the shade. In this weather excellent work might have been done in the boats along the coast, could the "Terror" only have been got inshore. This annoying condition of affairs continued till noon of the 29th, when a general movement of the ice from the westward began. "It is needless to say," writes Back, "with how much pleasure so joyful a sight was hailed, and how sincerely we prayed that both the cause and the effect might continue until a passage should be cleared to the Frozen Strait." By noon on the 4th September the ship had been worked to a position five miles west of Fife Rock, twenty-four miles from Southampton Island, and four hundred and thirty-six miles from Repulse Bay. On the following day lanes of water were seen leading shoreward; but though every sail was set, and the strongest hawsers were fastened in the ice ahead, and then hove round by the capstan, it was found impossible to move the vessel, so firmly was the "sludge" frozen around her. There was still, however, another resource. Lieutenant Smyth, Captain Back's first officer, was despatched with the whole of the officers and men to the only open water at all near, and the entire force setting to work with axes, ice chisels, handspikes, and long poles, began cutting away the sludge that bound the pieces together and removing the latter into the clear space. "In this service they were frequently obliged to fasten lines to the heavier masses and haul them out; and though slipping and tumbling about, yet the light-hearted fellows pulled in unison to a cheerful song, and laughed and joked with the unreflecting merriment of schoolboys. Every now and then some luckless wight broke through the thin ice and plunged up to his neck; another endeavouring to remove a piece of ice by pushing against a larger mass would set himself adrift with it, and every such adventure was followed by shouts of laughter and vociferous mirth." This resource proved not unfruitful. The breeze gradually increased, the sails were hoisted, and the "Terror" began to gather way and went slowly towards the land. The expanse of ice around seemed indeed to be infinite; but every dark spot of water afforded some ground for the hope that, should the wind veer and come off shore, Back would find himself in a navigable channel. As the great masses separated from time to time, the hawsers were put in requisition, and the ship hove in between. This arduous labour was continued incessantly until at ten P.M. the "Terror" was worked into a clear space which, however, was only four miles long. On the evening of the 6th, the ship being then distant ten or twelve miles from the shore of Southampton Island, the vessel was again stopped by ice. Earnest, indeed, and frequent, were the prayers for a south or a west wind, but no such favourable breeze arose, and the enforced idleness of the officers and men was felt as most irksome. On September 11th the officers collected in groups and "basked in the sunshine of an Arctic summer day, with the thermometer at 35°." To relieve

in some manner the monotony of the situation, Back had permitted the seamen to go on the floe alongside and amuse themselves with various amusements, chief of which was the appropriate though rather rough game of baiting the bear. On the 11th the game was played in earnest. George Green, the ice mate, called down from the crow's-nest the electrifying words, "A bear in sight!" "The alarm being immediately given, the men ran helter-skelter to the ship, headed by a bull-dog belonging to the sergeant of marines, which was first on board. Every one below hearing the rush flew on deck, and learning the cause, seized the first gun at hand to prepare for the attack. Meantime the noble animal—a fine Polar bear—nothing startled by the hubbub which might well have frightened a legion of his kindred away, approached with deliberate steps nearer and nearer. His gait was loose and rolling, as if weak from hunger, for he rather drew than lifted his huge limbs over the rugged surface; and still as he advanced, he now raised his black nose and sniffed, and now paused, as appetite or fear prevailed. At length he took courage and followed up the scent; till at the distance of about fifty paces from the ship, he stood like a target to receive the balls which were soon showered upon him. He fell, but recovering his legs, limped with what strength was left a few paces off. Then all hurried to pursue. One grasped a handspike, another poised a lance, a third, more heedless, rushed on with a mere stick to give the *coup de grâce*. The more prudent, however, retained their guns, and a few more shots terminated the sufferings of poor Bruin." The animal was found to be seven feet long from the snout to the tail, and five feet in girth round the middle.

On the 16th September a breeze sprang up from south by west. The sails were set, and the ship began to forge ahead slowly through the ice. "It was indeed singular," says Back, "to behold the vast ship gliding along without any perceptible water." Considerable progress was made toward the land in the neighbourhood of Cape Comfort; but the wind changing to the east, the compacted ice around the ship and the ship itself, were carried along toward the west. On the morning of the 18th, Back found that he had been driven three or four miles past Cape Comfort, and at the same time had been set considerably nearer the coast, which had a most forbidding appearance. To the north it presented a towering and perpendicular front, rent into fissures, or jagged with splintery ridges, all deeply black, whilst toward the south it receded in round backed hills entirely covered with snow, except where sharp-angled rocks cropped out. Toward the west the land gradually declined with long slopes and wide valleys to Cape Bylot. At midnight the ice began again to drift slowly westward, and on the morning of the 19th sail was set to make the most of the wind which now blew from the south. If it would only veer round four points to the westward! Next morning, instead of changing to the desired quarter, the wind drew to

the north, and blowing fresh, jammed up the seaward ice upon the land with more force than had ever yet been displayed. Shortly after nine A.M. a floe piece split in two, and the tremendous violence of the pressure from the north curled and crushed up the windward ice, and piled it eighteen feet high against the beam of the "Terror." "The ship creaked as if she were in agony," says Back, "and, strong as she was, must have been stove and crushed, had not some of the smaller masses been forced under her bottom, and so diminished the strain by lifting her bow nearly two feet out of the water." There was some reason to believe that the ice, besides being sunk under the vessel, was also finding its way under the rampart of ice now threatening the beam of the "Terror;" "for," says Back, "the uplifted ruins (of this ice rampart), within fifty paces of the weather beam, were advancing slowly towards us like an immense wave fraught with destruction. Resistance would not, could not, have been effectual beyond a few seconds; for what, of human construction, could withstand the impact of an icy continent, driven onward by a furious storm? In the meantime, symptoms too unequivocal to be misunderstood, demonstrated the intensity of the pressure. The butt-ends began to start, and the copper, in which the galley apparatus was fixed, became crushed; sliding doors refused to shut, and leaks found access through the bulk-heads and bulls-eyes." The crisis appeared to be impending, and in order to meet it in the only way possible, Back ordered the preserved meats and provisions to be put up from below and stowed on the deck ready for immediate transference to the ice, when the final crush should come. On the 21st a motion was felt in the surrounding ice; a number of astounding thumps were heard against the bottom of the vessel under water, and then the ship, which had been heaved high above her line of flotation and thrown over to port, came swinging round and righted. Back, on beholding the walls of ice on either side between which the "Terror" had been nipped, was astonished at the tremendous force which she must have sustained. "Her mould," he says, "was stamped as perfectly as in a die" in the ice. The old Greenland seamen aboard said that no ship they had ever sailed in before, or ever seen, could have withstood such a pressure.

The winter had now commenced in this region, and Back was fully aware that if his enterprise was to be saved from failure, and his ship and men saved from destruction, he must find some sufficient shelter for the "Terror" during the winter months. Accordingly he despatched an exploring party under Lieutenant Smyth to examine the rocks and headlands of the neighbouring coast in search of some available harbour. But the search for the desired harbour was fruitless, and, from the circumstances in which Back now found himself, it was impossible at any subsequent period to resume it.

During the night of the 24th September the condition of affairs was entirely changed. Chaotic commotion arose around the explorers, and the whole body of ice in which the "Terror" was imbedded separated into single pieces, and, finally, on the morning of the 26th, commenced to rush violently westward towards Frozen Strait, tossing into amorphous heaps or grinding into sludge and brash ice whatever floes opposed its advance. In this commotion the "Terror" was helpless, and for the first time the appalling conviction took possession of the mind of the commander that there was now nothing to do but drift with the ice at the risk of wreck on the rocks, or of being crushed under ice-mountains, until Nature in her own good time should release him.

And now commenced one of the most singular and surprising experiences on record of an Arctic winter among the ice. Each succeeding day brought successive perils and vicissitudes, and from this point onward, for twelve months Back and his companions continued to live in the immediate and constant presence of death, and under its very shadow. The very continuity and perpetual recurrence of horrors renders the story of the fortunes of the "Terror" monotonous. Under the influence of wind and tide, and of the irresistible pressure of the ice-fields sweeping down Fox Channel from Fury and Hecla Strait upon the north shore of Southampton Island, the ice in the neighbourhood of the vessel was almost daily curled up into moving ramparts and swept onward, crushing everything before it, with as free a motion as if it had been an ocean billow instead of a wave of solid ice. Over and over again the "Terror" must have been engulfed under these waves of ice had its strength not been much greater than that of ordinary whalers, or than the vessels of the Hudson's Bay Company. As it was, the "Terror" rose to the advancing ice-rampart as it would have done to an ordinary wave in free water, though of course the rising motion was in this case more limited in its sweep. During the whole winter the good ship was liable daily to be dashed to pieces by those ice-waves, and in every encounter with the billows of adamant she was more or less severely "nipped," until eventually her timbers crashed, her bolts started, and her hull had literally to be held together by chains carried round the keel and hove tight over the deck with the capstan. During the first weeks of the winter the vessel was drifted backwards and forward, carried helplessly hither and thither by wind and tide along the coast of Southampton Island, off Cape Comfort. As the season advanced, however, she gradually drifted with the pack south-eastward towards Hudson Strait.

On the night of the 21st December the barometer began to fall quickly, and the minds of all were oppressed with the expectation of some uncommonly perilous occurrence. On the following morning the wind blew hard from S.S.E. The sky was overcast, and a snowy haze prevented the explorers

from seeing an object at a greater distance than a few yards. Soon a rustling noise like the rushing of water was heard, and presently the storm was upon the vessel, raging with such fury that not a man could face it. Several of those who tried to go out from under the housing were instantly frost-bitten, and the officer of the watch, in merely going from the housing to the taffrail to register the thermometer, "had the whole of his face frozen." The storm raged like a hurricane and covered the ship with snowdrift. The topmasts shook like wands, and the lee rigging was bent outward "like a bow." The tempest was not exhausted till the 24th, and then the sky was again serene, and Back found that he had driven with the ice twelve or fourteen miles eastward of Cape Comfort. Toward the end of December the crew began to be affected with scurvy, and on the 13th January a sailor named Graham Walker died of it. On the 14th the officers and crew performed the last mournful duties toward their shipmate. "The body was conveyed on a sledge to the extremity of the floe, where a grave had been dug through the ice; and the solemn and affecting service for the dead having been read, the remains were committed to the deep." Another victim was shortly afterwards to be claimed by the fell disease. January had closed with intense cold, the thermometer registering 54° below zero on the 31st, on which day the sailors amused themselves by firing a pistol-ball of frozen mercury into a frozen piece of timber. Donaldson, the gunner, a valuable man, had for some time been down with scurvy; and on the 3d February, after remaining for days in a drowsy lethargy, refusing with a wave of his hand the nourishment that was offered to him from time to time, he gradually sank, and at last "slumbered to death."

Early on the morning of the 20th February, the ice separated along the starboard side and under the bow of the "Terror;" but a few hours later it returned upon the ship with accumulated force, making her crack fore and aft, with a hideous sound of ruin and disruption, that made every man hold his breath. Doors were dislocated and split with the pressure. The people crowded on the deck in alarm, and even the poor scurvy-stricken invalids came tottering aft in an agony of terror. "Providentially the ship lifted herself up fully eight inches, under the pressure of a force that would have crushed a less strengthened vessel to atoms—and thus the opposing ice either passed in part under the bottom, or was wedged against the large masses at either extremity." At eight A.M., Captain Back called the crew together, and reminded them that as Christians and British seamen they were called upon to conduct themselves with coolness and fortitude; and that, independently of the obligations imposed by the Articles of War, every one ought to be influenced by the still higher motive of a conscious desire to perform his duty. "I gave them to understand," continues Back, "that I expected from one and all, in the event of any disaster, an implicit obedi-



ence to, and an energetic execution of, every order they might receive from the officers, as well as kind and compassionate help to the sick. On their observance of these injunctions, I warned them, our ultimate safety might depend. Some fresh articles of warm clothing were then dealt out to them; and as the moment of destruction was uncertain, I desired that the small bags in which those things were contained should be placed on deck with the provisions (already collected there in anticipation of the break-up of the ship), so as to be ready at any instant. Meanwhile the ice moved but little. . . . Though I had seen vast bodies of ice from Spitzbergen to 150° W. longitude, under various aspects, some beautiful, and all more or less awe-inspiring, I had never witnessed, nor even imagined, anything so fearfully magnificent, as the moving towers and ramparts that now frowned on every side." At six o'clock in the evening the ice again attacked the ship. The ominous cracking of the timbers again assailed the men's ears, and again the vessel was lifted up eighteen inches; similar "nips" with similar effects took place on the following morning. At ten o'clock the ice-field became fixed in utter silence. Back went out to examine the floe, and his wonder was anew excited by the gigantic piles and ramparts of ice frowning along the sides of the vessel. "Of the awful grandeur of these," he writes, "no language could give an adequate description, and even the more effective pencil would be able only to catch our momentary aspect of the scene, the terrible solemnity of which lay chiefly in the rolling onward of these mighty engines of destruction. . . . While engaged with the first lieutenant in contemplating these effects, within ten paces of the vessel, the sound of rushing water beneath warned us to expect some change. All at once, however, it ceased. Another rush was heard, which stopped as suddenly; but a third, advancing with a louder roar, threw the whole body of ice into motion, and bringing the ponderous acres with all their loads against the ship, threw her up, and considerably over to starboard, with great violence, though, strange to say, with little apparent injury. It was then we saw her rise to the pressure, and endeavour to thrust the ice beneath her bends, a result much to be desired, as it would form a sort of bolster to support her." At 3.30 P.M., the ice suddenly pressed up against the ship, and at six it came with such force that the timbers creaked fearfully, and then, as usual, after some resistance, the ship rose and heeled over to starboard. On the morning of the 22d, the pressure came again suddenly on the ship, and strained so much as to start a number of the iron fastenings in the store-rooms. On the starboard, where the pressure was terrific, a huge mass of ice had been thrown up nineteen feet above the level. The whole scene was one of ruin, confusion, and devastation. "Broken points at every angle, from the perpendicular to the nearly horizontal, hummocks, mounds, jagged and warted masses, splinters, walls and ramparts, with here and there the

remains of some floe not yet entirely broken up—such was the picture which saluted us on every side."

From day to day throughout the whole of the spring and summer—the ship remaining beset in the floe all that time—a monotonous but terrific succession of crushes from the tide-heaved and wind-driven ice continued to afflict the "Terror." On the evening of the 7th March, the usual premonitory rushing sounds were heard far off on the north-east and north-west. These were caused by the approaching tide-flood which advanced either under the compact ice-field, or along the cracks and openings. As it passed through the latter, the flood, narrowed and hampered within the confined channels, attained a furious velocity. It happened that on the day named there were a number of these cracks at no great distance from the ship, and when these opened on the "Terror" like so many conduits rushing to a common centre, "the concussion," says Back, "was absolutely appalling—rending the lining and bulkheads in every part, loosening some shores or stanchions, so that the slightest effort would have thrown them down, and compressing others with such force as to make the turpentine ooze out of their extremities. One fir plank placed horizontally between the beams and the shores actually glittered with globules. At the same time the pressure was going on from the larboard side, where the three heaviest parts of the ruin of the floe remained, cracked here and there, but yet adhering in firm and solid bodies. These of course were irresistible, and after much groaning, splitting, and cracking, accompanied by sounds like the explosion of cannon, the ship rose fore and aft, and heeled over about 10° to starboard." On the 14th March the wind freshened into a gale, and in the evening the advancing ice began to press hard upon and underneath the stern and quarter, causing the timbers to crack fore and aft. The commotion continued till noon of the next day, when suddenly a loud crack was heard below the mainmast, as if the keel were broken or carried away. Meantime the boats and stores were lowered and placed on the floe, in expectation of the ship itself being buried under the ice. A continually increasing rush was heard at night, and it soon came on with a heavy roar towards the larboard quarter, "upturning in its progress, and rolling onward with it an immense wall of ice. This advanced so fast," continues Back, "that though all hands were immediately called, they had barely time, with the greatest exertion, to extricate three of the boats, one of them in fact being hoisted up when only a few feet from the crest of the solid wave, which held a steady course directly for the quarter, almost overtopping it, and continuing to elevate itself until about twenty-five feet high. A piece had just reached the rudder, and at the moment when to all appearance both that and a portion at least of the framework were expected to be staved in and buried beneath the ruins, the motion ceased, and at the same time the crest of the nearest part of the

wave topped over, leaving a deep wall extending from thence beyond the quarter."

Continuing to drift along the shore toward the south-east, the "Terror," still imbedded in the floe, was carried, by the 7th April, to Sir James Gordon's Bay, near Seahorse Point, the most easterly headland of Southampton Island. But though the season was now well advanced, and the sun shone with daily increasing power, the ship remained in constant peril from the tumultuous ice with which she was still surrounded. On the 26th April, Alexander Young, a marine, died of scurvy. By the 5th May, the "Terror" had drifted to near Nottingham Island, at the western mouth of Hudson Strait. The crew were now much employed in refitting the vessel, which was still moored to her broad raft of ice. But the floe to which the vessel was attached was now gradually diminishing in dimensions; and on the 1st June Back observed a considerable number of pieces detach themselves from the main body, and drift away. On the 6th a western wind blew with considerable violence, and began at length to have some effect on the immense surface of ice surrounding the vessel. On June 8th a lane of water opened out astern to the distance of three or four hundred yards; and on the following day the ice forming the pack on which the vessel was carried was observed to have slightly diminished in thickness; and from the effects of the sun, and of the heat radiated from the sides of the ship, the ice around her had sunk two feet, thus partly exposing the keel under the fore-part of the vessel, while a deep trench extended quite round her, surmounted by the ruins of the ponderous ice-waves, in the hard gripe of which the whole of the after-part lay immovably wedged. The crew were now set to work with picks, spades, and axes, to reduce the size of these ramparts of ice, and to mark out the most feasible line of escape when the disruption of the pack should commence. On the 15th Back gave orders to commence undermining the ice below the bow of the vessel. In this most laborious process, saws were altogether useless, on account of the thickness of the floe, which was found to be between forty and fifty feet. The thaw continuing, however, the cracks around the ship became more numerous; and on the 23d June an immense mass of the pack near the ship broke off. Upon this mass, at the moment it broke off, a number of the crew were working. These were for the moment placed in the most perilous position from the rocking of the piece after being detached. A small boat was at once sent to them, and all of them were got safely on board, though their pick-axes, shovels, handspikes, etc., were all lost. On June 29th a sudden disruption took place a hundred and fifty yards ahead of the ship, and split the floe right across. On the following day the experiment of cannonading the ice was made, but without the expected results, for instead of splintering and throwing down the mounds, the six-pounder shot used

merely cracked it, and sank deep into the ice, without causing any disruption. One of the shot was next day recovered. It had been discharged at the distance of twenty-one yards, with a charge of sixteen ounces of powder, and had penetrated a yard and a half, splitting the mass in various directions. Early in July the ice-saws were got out, and considerable progress was made in cutting across the masses of over twenty feet in thickness. On the 11th, while the crew were engaged sawing the ice, so as to free the stern-post, a succession of unusual cracking noises from below seemed to warn them that something was about to happen. The captain was called, and after inspecting the works and giving directions, he returned again on board the ship. But scarcely had he regained his cabin, when a loud rumbling notified that the ship had broken her icy bonds, and was sliding gently down into her own element. "I ran instantly on deck," writes Back, "and joined in the cheers of the officers and men, who, dispersed on different pieces of ice, took this significant method of expressing their feelings. It was a sight not to be forgotten. Standing on the taffrail, I saw the dark bubbling water below, and enormous masses of ice gently vibrating and springing to the surface. The first lieutenant was just climbing over the stern, while other groups were standing apart, separated by this new gulf; and the spars, together with working implements, were resting half in the water, half on the ice, whilst the saw, the instrument whereby this effect was produced, was bent double, and in that position forcibly detained by the body it had severed." Fortunately, all the men on the detached pieces were got off the floating masses without accident.

The ice *around* the vessel was now seen in fragments floating away and mixing with other loose pieces. But Back had still to get rid of the ice *under* the vessel, and recourse was had to every known expedient to get free of this huge encumbrance. The ice-saw was repaired, and though this remaining mass was found to be twenty-four feet thick, the crew, among whom the officers laboured like ordinary shipmates, commenced the arduous work with the greatest spirit on the 13th, and worked incessantly during that day and the following night. At two o'clock on the morning of the 14th, while the exhausted crew were still languidly at work, the grating sound of breaking ice was suddenly heard, and before a word could be spoken, the liberated ship righted, and floated in free water, while broken spars, the bent saw, and the massive berg were all in confusion together. "Quick as they could spring, the crew jumped on deck; and I know not," says Back, "how many cheers commemorated the joyful occasion."

Sail was now set, but in the teeth of an adverse easterly wind progress was slow. It was not till the 5th August that the battered, strained, and leaky ship reached Button Isles, at the entrance to Hudson Strait. On the following day Back entered Davis Strait. But now the shattered condition

of the after-part of the vessel, the rickety state of the stern-post, and other parts, demanded immediate attention; chain cables were passed under the bottom of the ship to strengthen the loosened outer timbers or "doubling," hove tight by the capstan, and fastened to ring-bolts on the quarter-deck. Thus patched up, the "Terror," practically a wreck, was carried across the Atlantic. On the 3d September, after one of the most extraordinary voyages of modern times, she reached British waters, and was safely anchored in Lough Swilly. Thus, after a year of constant danger and hardship, Back's expedition of 1836-37 came to a close. The gallant commander was not even permitted to reach the spot in which the original exploration was to begin, and he returned without having had it in his power to add anything to the geography or the scientific knowledge of his time.

After the date 1837, Back no longer appears as an Arctic explorer; but from that date to the present time he has continued to take the keenest interest in all voyages of discovery in Polar regions, in the organisation of which Government have never failed to avail themselves of his judgment and experience. For forty years he has continued to enjoy and to merit the respect of the service and of the country. He was knighted in 1839, and was promoted to the rank of Admiral in 1867. To his qualifications as an explorer and a man of science he adds the gifts of a man of artistic culture. His sketches are vivid reproductions of Arctic scenery and the incidents of exploration; and in taking leave of him here, it is with sincere gratitude that the present writer pays a just tribute to his literary style. The study of his works has been a pleasure, and their condensation an interesting task. The narratives of many explorers are dull, heavy, clogged with iteration, deluged with aimless and flavourless detail; but those of Admiral Sir George Back are full of the picturesqueness and the humour which characterise his pencil sketches of Arctic life and adventure.

CHAPTER VIII.

SIMPSON'S EXPLORATIONS, 1836 - 39 — OFFICIAL INSTRUCTIONS — ARRIVAL AT RETURN REEF—THE UNKNOWN TRACT TRAVERSED—RETURN TO WINTER QUARTERS.

WHILE Captain Back, in the "Terror," was drifting helplessly in the ice-pack between Frozen and Hudson Straits, an expedition destined to be as successful as the gallant captain's was fruitless, was being organised by the Hudson's Bay Company. By the efforts of Franklin, Beechey, and Back, immense tracts of the northern shores of America had been visited and surveyed. Beginning from the west, Beechey's expedition, passing north through Behring Strait, and eastward past Icy Cape, advanced the British flag as far eastward along the American shore as Point Barrow, in long. 156° 21' W. From Point Barrow, eastward to Return Reef, a distance of about 150 miles, the tract of coast was as yet entirely unknown. From Return Reef eastward along the coast, past the mouths of the Mackenzie and Coppermine Rivers to Point Turnagain, on the eastern shore of Kent Peninsula (Dease Strait), Franklin and Richardson surveyed the shore. From Point Turnagain eastward again, the shores of the Polar Sea were entirely unknown as far as the coasts of the mouth of Back or Great Fish River, the discovery of which, as we have seen, is due to the energy and enterprise of Captain Back. The portions of the northern coast of America that remained still unexplored, then, were the tracts between Point Barrow and Return Reef in the far north-west, and between Point Turnagain and the Great Fish River, forming the most easterly reach of the coast-line. What lay to the east of the mouth of Great Fish River was wholly unknown in 1836. Many persons interested in Arctic discovery, however, believed that water-communication existed between the mouth of this great river and Regent Inlet. To ascertain whether this really was the case, and also to survey the as yet undiscovered tracts of the North American coast-line, were the principal considerations in determining the Hudson's Bay Company to organise the expedition with which the name of Simpson is identified in the annals of Arctic exploration. The directors of the Company resolved to give the command of the enterprise to two of their own officers, and the gentlemen

selected for the distinction were Mr Peter Warren Dease and Mr Thomas Simpson—the former a chief factor and the latter a junior officer in the service of the Company. Mr Dease, who, it will be remembered, rendered signal service to Franklin during the winter of 1825-26 (see page 247), was a gentleman of considerable experience in dealing with Indian hunters, guides, etc., and on account of his seniority, the chief command of the expedition was entrusted to him. Practically, however, the actual conduct of affairs came gradually into the hands of Simpson, who was young, ardent, ambitious, and to whom, personally, all the discoveries of the expedition are to be credited.

The purpose of the expedition, as explained in the letter of instructions sent by the Governor of the Company to the joint commanders, and dated 13th July 1836, was “to endeavour to complete the discovery and survey of the northern shores of the American continent.” The expedition was to consist of twelve men, to be placed under the command of Dease and Simpson. These were to be conducted without delay to the Athabasca country, and to pass the winter of 1836-37 either at Fort Chipewyan (Lake Athabasca) or Fort Resolution (Great Slave Lake). In June 1837 the officers, leaving four men behind on Great Bear Lake to erect buildings there and collect stores, etc., were to proceed down Mackenzie River and trace the unknown coast-line between Return Reef—Franklin’s farthest in the westward direction—and Point Barrow, the farthest point eastward from the Pacific, discovered by Beechey’s first officer in 1826. Returning along the coast, and by the Mackenzie River, the leaders should pass the following winter at their establishment on Great Bear Lake, whence, in the summer of 1838, they were to proceed down the Coppermine, and coasting along the north shores of the continent, should explore the unknown coast-line from Franklin’s Point Turnagain east to the mouth of Back or Great Fish River. In compliance with these instructions, Mr Dease set out on the 31st July 1836 from Norway House to Athabasca Lake, while Mr Simpson, whose services were not immediately required, went south to Red River Settlement, “chiefly,” he says, “with a view to refresh and extend my astronomical practice, which had for some years been interrupted by avocations of a very different nature.” Simpson subsequently states that he found less difficulty in refreshing his knowledge of mathematics and astronomy, with the view of taking the necessary observations of the expedition, than he had expected. Certainly the routine work of a clerk in the employment of the Hudson’s Bay Company of the date referred to was not of a kind requiring the exercise of high-class scholastic attainments, but it must be remembered that Simpson, who was now only twenty-eight years of age, had seven years previously graduated M.A. at King’s College, Aberdeen, of which, also, he was the successful candidate for the “Hut-

tonian Prize," the highest reward of literary merit then given in that university. And the determination, which had enabled him to carry off the highest honour of his university in the year in which he attained his majority, had evidently not yet deserted him; for, having read mathematics with care and profit for a few months, he started on the 1st December to walk from Red River Settlement to Athabasca Lake, a distance of 1277 miles, which he accomplished in sixty-two days. Twenty miles a day for two months must be regarded as remarkable walking, when it is remembered that the route lay over a rugged and trackless waste, that the journey was performed in the depth of winter, that the party nightly bivouacked on the snow, and that Simpson himself invariably "*raised the road*"—i.e., led on in advance to mark the track, a duty so fatiguing that it is usually taken for only an hour at a time by the different members of a travelling party alternately. Of the nature of this astonishing march, some idea may be formed from the following record, in Simpson's narrative, of one day's journey: "We were now (23d December) at the commencement of a plain twenty miles in breadth, which my guide required daylight to cross; we therefore breakfasted and started at seven o'clock. The wind blew strongly from the westward, and to face it, where there was not even a shrub or blade of grass to break its force, with a temperature of at least -40° , was a serious undertaking. Muffling up our faces with shawls, pieces of blanket, and leather, in such a manner as to leave only the eyes exposed, we braved the blast. Each eyelash was speedily bedizened with a heavy crop of icicles, and we were obliged every now and then to turn our backs to the wind and thaw off these obstructions with our half-frozen fingers. Early in the afternoon we reached what are called the Cross Woods, where we were glad to make the best lodging we could for the night, there being another wide prairie on the opposite side. Notwithstanding every precaution, two of the men were injured by the cold—one, a half-breed from Fort Pelly, who afterwards, at Carlton, lamented his inability to dance in consequence of his frozen heels. Neither bird nor beast was seen during the day, the intense cold having driven all living things but ourselves to the shelter of the woods."

On the 1st February, Simpson arrived at Fort Chipewyan on Athabasca Lake. The construction of two boats for the voyage down to the Polar Sea was at once proceeded with. By the close of May, the boats—light clinker-built craft of twenty-four feet keel, and six feet beam, and each carrying two lug sails—were finished, and were named "Castor" and "Pollux." In these the expedition started from Fort Chipewyan on the 1st June, on its descent to the sea, and arrived on the 10th at Fort Resolution on Great Slave Lake. Fort Simpson was reached on the 28th, and Fort Norman on the 1st July. Here, according to his instructions, Simpson sent away a party of four of his men to ascend Bear Lake River to Great Bear Lake, and to erect winter

quarters there, establish a fishery, and collect dried meat for the coming winter. From this point began the voyage proper down the Mackenzie to the Polar Sea. The crews of the "Castor" and "Pollux" consisted of six men each, and included the famous steersmen, M'Kay and Sinclair, who had sailed with Back down Great Fish River, as well as François Felix, a Canadian bowman, who had been with Franklin in 1826. Near the junction of Bear Lake River with the Mackenzie, the natural fires of wood-coal along the bank were observed to be still burning, just as when they were seen and described by Richardson. On the 7th, after having passed Point Separation, at the head of the delta of the Mackenzie, the explorers had the satisfaction, new to a number of them, of beholding the sun at midnight, elevated more than one diameter above the horizon. "At four P.M." (on the 9th), writes Simpson, "the Arctic Ocean burst into view. We saluted it with joyous cheers, and, immediately landing, found ourselves at the bottom of Shoalwater Bay." After waiting here for an hour, the westward voyage along the coast was commenced, and the discoveries of Franklin were successively verified without the occurrence of many incidents of a kind with which his voyage has not made us familiar. The navigation was difficult, the storms frequent, and the shore-channel hampered with ice, as Franklin had found them, and the different tribes of Eskimos met with at the various landing-places, displayed the same characteristics of simplicity, cupidity, and occasionally of a disposition to high-handed robbery, which the first civilised navigator of these shores so minutely observed and described. There is, therefore, little to record in the voyage of the "Castor" and "Pollux" until when, on the 23d July, the boats arrived off Return Reef, the farthest point reached by Franklin, and consequently the point at which the discoveries and original researches of Dease and Simpson were to begin. "At ten o'clock on the morning of the 23d," writes Simpson, "we once more set sail for Point Anxiety. The ice again prevented our approaching it, and let us far to seaward, till, in passing Yarborough Inlet, the low coast was only visible from the mast-head, distant about six miles. The ice, to our great joy, then turned abruptly in towards Return Reef, which we reached at nine in the evening. I may here mention that our early arrival at the point where our discoveries were to commence is, under Providence, mainly attributable to our perseverance in *doubling* these great ice-packs, any of which might have confined us a fortnight to the beach, had we chosen to wait for its dispersion, or even till its extent could have been ascertained. Our humble thanks were offered to the Omnipotent Being whose arm had guarded us thus far, and we fervently implored a continuance of His gracious protection. . . . After supper we resumed our route, and the regular survey began."

The route along the shore from Return Reef to Point Barrow was

followed out with the greatest determination and courage, and without an hour's unnecessary delay. Simpson and Dease, starting "after supper" on the night of the 23d July, sailed all night—if night it could be called, when the sun never dipped below the horizon—and early on the morning they passed two points; about twelve miles beyond Return Reef they discovered two headlands, to which they gave the names Point Back and Point Beechey. A long day of hard work followed. At nine A.M. the water shoaled to from one to two feet; and after seeking in vain for a deeper channel, the explorers were obliged to stand out to sea. Colville River was discovered and named. The low beach near the mouth of this stream is formed of mud and gravel, and the volume of the river itself was so considerable, that the water, even at the distance of three leagues to seaward, was perfectly fresh. After running out from shore fourteen miles, the explorers tacked, and steering south-west, ran a distance of sixteen miles. Again they ran out seaward for seventeen miles, when they found themselves in salt water a fathom and a half deep. The wind now sprang up from the north, and drove in the ice on the boats. The adventurers, who had not seen land since morning, and were quite uncertain what direction to take, now steered westward at a venture, and after sailing five miles, had the good luck to make the shore at midnight. "It was with difficulty," writes Simpson, "that we found a landing-place on a large fragment of ice, upon which the boats were hauled up. Having fasted for twenty-five hours, and being, moreover, benumbed with cold, it will readily be believed that we eagerly set about collecting wood, and making a fire to cook our supper, to which, of course, we did ample justice. In gratitude for these seasonable enjoyments, this spot was denominated Point Comfort. Most of the party had caught severe colds from the constant exposure and unhealthy fogs; and all would have been incapacitated for wading through the ice-cold water, had it not been for the seal-skin boots which we had procured from the Eskimos—an invaluable acquisition on such service."

Detained by adverse winds on the 25th—during which, however, Simpson was able to take observations, and found himself in lat. $70^{\circ} 43' N.$, long. $152^{\circ} 14' W.$ —the boats were launched on the morning of the 26th. "On the 27th," writes Simpson, "it blew a cutting blast from the north-east, and the spray froze upon the oars and rigging." On the same day, Cape George Simpson, in lat. $70^{\circ} 59' N.$, long. $154^{\circ} 21' W.$, was discovered and named. For the next four days, however, the progress made was only one mile *per diem*; such were the obstructions from ice and fog. Simpson now began to fear that the expedition would be detained on its present service until it would be too late in the season to effect a return to the winter quarters at Bear Lake, and he therefore resolved to explore the remainder of the coast to Point Barrow on foot. Selecting five men to accompany him, he

started from the encampment, at which the boats were to be left in charge of Mr Dease, and which was named Boat Extreme, on the 1st August. The provisions of the travelling party consisted of a supply of pemmican and flour; besides which each man carried his blanket, spare shoes, gun and ammunition. The remaining stores consisted of a single kettle, a couple of axes, a few trinkets, a sextant and artificial horizon, and a canvas canoe, stretched on its wooden frame. "The day," writes Simpson, "was dark and dismal in the extreme, a cutting north wind bearing on its wings a fog that hid every object at the distance of a hundred yards. We were therefore under the necessity of closely following the coast line, which much increased the distance and fatigue. The land is very low, and intersected by innumerable salt creeks. In fording these, we were constantly wet to the waist, and the water was dreadfully cold. . . . Having accomplished twenty miles at seven P.M., we found a grassy plot, with a few pieces of (drift) wood. Little or none of that essential article had been seen during the day, this part of the coast being shut out from the action of the sea by a chain of reefs. Here, then, we encamped, half congealed by the cold wet fog and wind, which encrusted our clothes with hoar-frost and ice, as in the severity of winter. Unfortunately the spot where we halted was wet beneath the deceitful surface; and being quite exposed to the weather, we passed a miserable night." The following day was one of similarly trying labour. After discovering and naming Point Tangent (long. 154° 52' W.), the party had advanced ten miles, wading through many a salt creek, the waters of which were at the freezing temperature, when, to their "inexpressible joy," they descried an Eskimo encampment. As soon as friendly relations with the natives had been established, Simpson proposed to borrow one of their oomiacks, or large family canoes, to take his party on to Point Barrow and back. The Eskimos at once acceded to the request. The best of the oomiacks, with its oars and paddles, was selected; and after a general distribution of tobacco and trinkets—the former received with intense delight by men, women, and children—Simpson shoved off, and steering westward, soon discovered and named Dease Inlet and Point Christie. On the evening of the 3d August, progress was barred by a compact body of ice. It was easy, however, to carry the light oomiack across this barrier, and resume the voyage. "It was now calm," writes Simpson; "the ducks flew westward in immensely long files, and *young ice* had formed on every open space—a timely warning to travellers who adventure far into these regions of frost. But we were fast approaching the goal that was to crown our enterprise, and disregarded all impediments. Seven miles beyond Cape Scott, we crossed the mouth of a fine, deep river, a quarter of a mile wide, which I called the Bellevue. Landing beyond it, I saw, with indescribable emotions, *Point Barrow*, stretching out to the northward, and enclosing Elson Bay, near the bottom

of which we now were. The sun was just reappearing, a little before one in the morning of the 4th, when this joyful sight met my eyes. His early rays decked the clouds in splendour as I poured forth my grateful orisons to the Father of Light, who had guided our steps securely through every difficulty and danger. We had now only to pass Elson Bay, which is for the most part shallow. It was covered with a tough coat of young ice, through which we broke a passage; and then forced our way amid a heavy pack, nearly half a mile broad, that rested on the shore. On reaching it, and seeing the ocean spreading far and wide to the south-west, we unfurled our flag, and with three enthusiastic cheers, took possession of our discoveries in his Majesty's name." Thus did this most intrepid explorer successfully accomplish the first task which the Hudson's Bay Company had set before him. He had advanced from the point at which Franklin had been compelled to retire, and had connected the brilliant discoveries of that great navigator with those of Beechey's expedition from the Pacific.

Point Barrow, which had been the end and aim of Simpson's efforts for months, is a long, low spit of land, consisting of gravel and coarse sand, which the pressure of the ice of numberless winters has forced up into numerous mounds. Bare and bleak in itself, the most lively feature it presented was an immense Eskimo cemetery, where the remains of numbers of that people were seen lying on the ground, still invested with the sealskin dresses which they had worn in life. Near the spot where the explorers had landed, at a very early hour, on this barren headland, there were two Eskimo encampments, the inhabitants of which, roused from their slumbers by the unwonted and ominous sound of three British cheers, appear to have been at first struck with terror, and lay still within their huts. Afterwards, however, they ventured out, and confidence was established between them and their visitors in the usual way, and with the usual results. On the 4th, Simpson launched the oomiack, and commenced the return voyage; and on the following day reached and rewarded the Eskimos from whom he had borrowed the canoe. He stipulated, however, that he should retain the use of the oomiack for a few days more, and promised to leave it for the owners at Boat Extreme, where he had left Mr Dease and the remainder of the party in charge of their own boats. On the 6th he reached Boat Extreme, and, having laid up the canoe securely on the beach, he, together with Mr Dease and the whole party, put to sea in the "Castor" and "Pollux," and continued sailing all night eastward along the shore toward the mouth of the Mackenzie River, where he arrived in safety on the 17th. "Our ascent of the Mackenzie," writes Simpson, who was certainly the swiftest of all Arctic explorers down to his own day, "was performed almost exclusively by towing—at the rate of from thirty to forty miles a day. The crews were divided into two parties, who relieved each other every hour, and were thus

spared all unnecessary fatigue." Continuing the voyage in this vigorous fashion, the boats arrived at the confluence of Bear Lake River with the Mackenzie on the 3d September. Here the leaders deposited the cargoes of the "Castor" and "Pollux," and prepared to ascend the Mackenzie a few miles farther to Fort Norman, where it was expected they should find their outfit for the coming year, with despatches, etc. "On the 4th," says Simpson, "we took an early breakfast at the burning banks, and lighted our fire with coals of nature's kindling. In the woods that crown this vast hot-bed we found a great profusion of very fine raspberries and gooseberries, which afforded us a rich treat. . . . At six P.M. we reached Fort Norman, to the utter amazement of the person in charge, who imagined us still at the coast." Two days after, the goods and provisions for the next, year's voyage down the Coppermine, and east to the Great Fish River, arrived; and taking these in charge, Dease and Simpson set out on the 10th for their winter quarters at Great Bear Lake. The little tabernacle in the snowy waste—for winter had already set in with its accustomed severity—was situated at the north-east extremity of the lake, near the mouth of Dease River. "We reached it," says Simpson, "at four P.M. on the 25th September, and had the satisfaction of finding our comrades safe and well. Our greetings were cordial indeed; and with feelings of sincere gratitude to an Almighty Protector, we bestowed upon our infant establishment the name of Fort Confidence.

CHAPTER IX.

WINTER AT FORT CONFIDENCE—EXTRAORDINARY APPETITES—SAILING OVER THE ICE—NEW LAND SURVEYED—THE IMPOSSIBLE ACHIEVED.

THE building party had not arrived at the spot selected for the winter quarters before the 27th August, and at the date of the arrival of Dease and Simpson (25th September), only a small store and the framework of a dwelling-house had been erected. The site of the new establishment was a wooded point on the northern side of a deep and narrow strait, on the opposite or southern side of which was a large island. A fishery had been at once established on the strait, and though the number of fish taken diminished rapidly as the cold increased, yet this source of food-supply proved of the utmost importance, as otherwise the joint commanders would have experienced the greatest difficulty in feeding the numerous Dog-rib and Hare Indians who crowded, with their families, to the fort as soon as the settlement was made. "To commence a winter within the Arctic circle," remarks Simpson, "with a considerable party destitute of provisions, and the Indians upon whom we mainly depended for subsistence requiring *our* aid and support, was an alarming condition, which demanded the utmost exertion of our personal resources." More nets were accordingly set in the strait, and several fishing stations established at some distance. These, however, ceased to be productive early in November, after which period the settlers were obliged to place their chief reliance on the uncertain movements of the reindeer. During October and November, Simpson occupied himself chiefly in hunting with the Indians. At this season the deer began to draw in from the north-east to the country between Great Bear Lake and the Coppermine, and whenever the hunters were lucky enough to strike down a number of deer, they despatched the greater part of the meat to Fort Confidence. These hunting excursions were not only necessary and profitable, but also delightful. "I highly relished the animation of the chase," writes Simpson, "and the absolute independence of an Indian life. Our tents were usually pitched in the last of the stunted straggling woods, whence we issued out at daybreak among the bare snowy hills of the 'barren lands,'

where the deer could be distinguished a great way off by the contrast of their dim colour with the pure white of the boundless waste. The hunters then dispersed and advanced in such a manner as to intercept the deer in their confused retreat to windward, the direction they almost invariably followed. On one occasion I witnessed an extraordinary instance of affection in these timid creatures. Having brought down a fine doe at some distance, I was running forward to despatch her with my knife when a handsome young buck bounded up and raised his fallen favourite with his antlers. She went a few paces and fell; again he raised her, and continued whirling around her, till a second ball—for hunger is ruthless—laid him dead at her side." Precarious indeed was the subsistence of the party and their Indian allies until the month of December, when the excessive cold drove the deer to the shelter of the woods, where they were more accessible to the hunters.

The buildings of Fort Confidence consisted of a log-house forty feet long and sixteen broad, with a chamber at one end for the leaders, a hall sixteen feet square used as eating-room—the explorers never *dined*—kitchen, and Indian workshop; and a house for the men, thirty feet long and eighteen broad. The whole, together with the store, forming three sides of a quadrangle fronting the south, was habitable before the close of October; but owing to the smallness of the timber of which the structures were built, and the difficulty of procuring enough of the frozen earth to cover the light roofs, there were chinks and crannies through which both snow and wind were freely admitted, and the cold was consequently severe throughout the entire winter. Near the close of December, when the thermometer stood at -49° , Simpson cast a pistol-bullet of quicksilver, which, fired at a distance of ten paces, passed through an inch plank, and flattened and broke against the wall a few paces beyond. But if the explorers sometimes suffered severely from cold, they were at least guaranteed against the greater calamity of want. By the end of the year the hunters had accumulated two or three weeks' provisions in advance, and no scarcity was experienced during the remainder of the season. This is not a little surprising, considering the immense quantities of food consumed at the fort daily by each individual. "The *daily ration* served out to each man," writes Simpson, "was increased from eight to ten, and, to some individuals, to twelve pounds of venison; or, when they could be got, four or five white fish weighing from fifteen to twenty pounds. This quantity of solid food, immoderate as it may appear, does not exceed the average standard of the country, and ought certainly to appease even the moderate appetite of a French Canadian." Yet there was one of these who complained of short commons, and did not scruple to help himself to an additional supply when the opportunity offered. "It would have taken twenty pounds of animal food daily to satisfy him." In these

regions the heat of the body is only to be maintained by a liberal supply of food, and during the winter of 1837-38, at Fort Confidence, the season was exceptionally severe. On the 11th February, at five A.M., the greatest cold registered during the winter was experienced. A spirit thermometer by Dollond stood at 60° below zero, while an older instrument stood at -66°. "This intense cold," writes Simpson, "was accompanied by a fresh westerly breeze, which several of our people had to face that morning, returning with meat from M'Tavish Bay. Spite of their deer-skin robes and capotes, their faces bore palpable marks of the weather; and when they reached the house, not a man was able to unlash his sledge till he had first thoroughly warmed his shivering frame."

During the spring of 1838, Simpson made an excursion north-east from Fort Confidence by Dease River and the Dismal Lakes to the vicinity of the Coppermine, travelling, in all, over a thousand miles. His object was to ascertain the character of the intervening country, in preparation for the great voyage which he was now about to undertake to the Polar Sea, and eastward along its shores to Great Fish River. This little reconnoitring trip of a thousand miles taxed the energies and endurance even of Simpson, who must be regarded as, among all Arctic explorers, the swiftest and most indefatigable *pedestrian*. "I had formerly walked," he says, "in the depth of winter, from York Factory, on Hudson's Bay, to Red River, and again from Red River to Athabasca—a distance little short of two thousand miles—wearing only an ordinary cloth capote, and have accomplished fifty miles in a day. Here, however, myself and my companions soon found that the wanderer within the unsheltered precincts of the Polar circle must be far otherwise provided. Accordingly, on our distant excursions, we usually assumed capotes of dressed moose-skin, impervious to the wind, or of reindeer hide, with the hairy side outwards; and were provided with robes of the latter light and warm material for a covering at night, when, to increase the supply of *animal* heat, our dogs couched close around us. Yet, in a stormy, barren, mountainous country, where, in many parts, a whole day's journey intervenes between one miserable clump of pines and the next, we were often exposed to great suffering, and even danger, from the cold; and several of our dogs were at various times frozen to death."

The time had now come when it was necessary to hurry on the preparations for the great voyage. Summer was now at hand. On the 15th May a solitary goose flew over the house away to the northward, and was followed two days after by swans and ducks of different species. About the same period the rapids, in the lower part of Dease River (near its mouth in Great Bear Lake), broke up, and the sea-boats, which had been thoroughly repaired and strengthened, were dragged over the ice to its mouth, to be in readiness for the moment that the ascent of the stream should become prac-



ticable. The voyage was commenced on the 7th June, when Dease and Simpson, with four men to each of their two boats, commenced the ascent of the Dease River. On the 9th, after passing the south branch of the river which falls in from the mountains in lat. $67^{\circ} 1' N.$, long. $118^{\circ} 12' W.$, the party pushed on over fifteen small rapids, and passed over several sheets of still water. On the 12th they had advanced seventy miles up the Dease River, and had arrived at the commencement of the portage forming the height of land between that river and the Dismal Lakes. On the 17th these lakes were reached, and were found to be still covered with thick ice, while the hills around glistened with snow. "At four o'clock next morning," says Simpson, "having fixed the boats firmly upon stout iron-shod sledges, brought with us for the purpose, and placed in them the oars and luggage, we hoisted the sails to a fair wind, and, placing the crews at the drag-ropes, set out at the rate of two knots an hour over the ice, colours flying. This extraordinary spectacle will long be a subject of tradition among the natives. The snow still adhering to the surface of the lake much impeded our progress, but could not damp the ardour which our strange and successful march excited. With the aid of the breeze we advanced fifteen miles, nearly half the length of this chain of lakes, and encamped in a little bay sheltered by an inland, where we collected willows enough to cook our supper." On the following morning, at three A.M., the intrepid explorers were again on the ice, crossing the deep and partially thawed snow-banks that lined the shores on snow-shoes. On this day the last of the Dismal Lakes was traversed, and on the 20th, having reached the open water of Kendal River, the boats were trimmed, the provisions embarked, and the descent of this stream—an affluent of the Coppermine—commenced. The descent was completed the same day, and the Coppermine, which, however, was found to be still covered with ice, was reached. A lead, or open passage in the icy surface of the great river, was discovered on the 22d, and the boats being pushed into it, were hurried down the stream. On the banks of the river herds of deer, unapprehensive of danger, were peacefully feeding, and the explorers, firing from the boats, brought down a number of them. "It was princely sport," exclaims Simpson, "and a supply of venison for several days rewarded our exertions." This favourable progress was interrupted, however, by quantities of ice, which came driving down the river from the north, and stopped the advance of the boats till the 24th. The sun was now in the heavens during the whole twenty-four hours; but the cold was still severe, and a chilling fog came up the valley of the river from the sea every night.

Tired of delay, and resolved to advance at all hazards, Dease and Simpson pushed out at eight on the morning of the 25th. The swollen and tumultuous stream was still strewn with loose ice, while the inaccessible

banks were piled up with ponderous fragments. "But," writes Simpson, "the day was bright and lovely as we shot down rapid after rapid, in many of which we had to pull for our lives, to keep out of the suction of the precipices, along whose base the breakers raged and foamed with overwhelming fury. Shortly before noon we came in sight of Escape Rapid of Franklin, and a glance at the overhanging cliffs told us that there was no alternative but to run down with full cargo. In an instant we were in the vortex; and, before we were aware, my boat was borne towards an isolated rock, which the boiling surge almost concealed. To clear it on the outside was no longer possible; our only chance of safety was to run between it and the lofty eastern cliff. The word was passed, and every breath was hushed. A stream, which dashed down upon us over the brow of the precipice, more than a hundred feet in height, mingled with the spray that whirled upwards from the rapid, forming a terrific shower-bath. The pass was about eight feet wide, and the error of a single foot would have been instant destruction. As, guided by Sinclair's consummate skill, the boat shot safely through those jaws of death, an involuntary cheer arose. Our next impulse was to turn round to view the fate of our comrades behind. They had profited by the peril we incurred, and kept without the treacherous rock in time. The waves there were still higher, and for a while we lost sight of our friends. When they emerged, the first object visible was the bowman disgorging part of an intrusive wave which he had swallowed, and looking half-drowned. Mr Dease afterwards told me that the spray, which completely enveloped them, formed a gorgeous rainbow around the boat."

After an enforced halt of five days on account of the ice, which still hampered the lower reaches of the river, the explorers recommenced the voyage on the 1st July, and descending Bloody Fall, reached the shores of the Polar Sea. The sea-ice, however, was found still firmly adhering to the beach, and showing no signs of decay. After a provoking delay of a week, Sinclair was sent along the coast on the 7th to examine the condition of the ice. He found it everywhere *lying solid and unbroken upon the sand!* On the evening of the 16th an opening in the ice, running east, was discovered, and on the following day the explorers, pushing into it, commenced their second voyage along the shores of the Arctic Ocean. Advancing day by day, with great labour, along the ice-hampered shore, the expedition followed the track of Franklin from point to point. On the 29th they doubled Cape Barrow, and finding the ice in Coronation Gulf still perfectly solid, they were obliged to coast along southward in search of a passage across Bathurst Inlet. While detained among Barry Islands, Simpson had the good fortune to discover several pieces of pure copper ore, in which these shores are known to be rich. Crossing the entrance to Melville Sound on the 5th, Simpson was deeply disappointed to find the interior of that inlet still com-

pletely covered with ice. The navigation of the shores of Kent Peninsula, round to the vicinity of Point Turnagain, where Franklin was stopped in 1821, was exceedingly slow, laborious, and unpromising. From the 9th to the 19th August the explorers were arrested in the vicinity of Cape Flinders, the western extremity of Kent Peninsula. While thus situated, the sea-ice, which extended before them, remained solid, its frozen rim resting on the sands of the beach. The short summer was now at an end, and the men had resumed their winter clothing. It was evident that little more could be achieved this season. "The period appointed for the return of former expeditions," writes Simpson, "was now arrived. Franklin's farthest encampment (Point Turnagain) in 1821, was about three miles to the northward of us; but on the 16th of August in that year he found here a perfectly open sea." How different was it now only three days later in the season! Instead of free water a frozen ocean extended around. Simpson, of course, knew that the exceedingly unfavourable character of the present season was due chiefly to the extreme length and severity of the preceding winter.

The extreme point reached by the boats was the encampment named Boathaven, in lat. $68^{\circ} 16' 25''$ N., long. $109^{\circ} 20' 45''$ W.; but in order that this voyage might not prove wholly fruitless, and that Simpson might be able at least to say that he had planted his foot on ground never yet visited by European, that officer proposed to conduct a party of seven men on foot, for ten days, along the coast to the eastward. This was the only means by which he could achieve at least a portion of the discoveries which he had hoped to complete this year, but the completion of which was only to be accomplished the following season. No sooner was his proposal to conduct a short land journey made to the men, than all of them volunteered to accompany him. He selected those of them who had not been with him on the journey from Boat Extreme to Point Barrow, and the necessary arrangements having been made, he set out with them on the morning of the 20th August. Each man's load, at starting, weighed about half-a-hundredweight—the stores including a tent, canvas canoe, astronomical instruments, copper kettle, two axes, guns, ammunition, and provisions for ten days. He describes his plan of march as follows: "We set out at seven or eight A.M., after breakfasting (which lessened the loads) and obtaining observations for longitude, and travelled for *ten hours*, exclusive of a halt of half-an-hour at noon to procure the latitude and variation." Their daily advance was twenty-three English miles, and about half way on his first day's journey he passed the extreme point to which Sir John Franklin and his officers walked in 1821. After this point every step was on virgin soil. The coast-line, as he advanced on the 20th, continued low, and the land trended north-north-east to the spot which he selected as his first encampment, and which he named Cape Franklin (long. $108^{\circ} 58'$ W.). On the 21st he dis-

covered and named Hargrave River, and on the 22d he passed a conspicuous hill which he named Mount George, and a headland which he named Point Ballenden. On the 23d (the men already suffering much from swelling and inflammation in the legs) the travelling was exceedingly painful—the beach and slopes being formed of loose stones, and traversed by numerous brooks and streams. The party, however, continued to push on with great spirit and pluck, full of eager expectation respecting the coast they were traversing and the line of high land, away across the ice, which they had first seen a few days previously, and which ran parallel to the coast they were traversing at a distance of about twenty miles north. “Along the distant shore of this strange land,” writes Simpson, “the beams of the declining sun were reflected from a broad channel of open water; while on the coast we were tracing, the ice still lay immovable, and extended many miles to seaward. As we drew near, in the evening, an elevated cape, land appeared all round, and our worst fears (that the coast-line of the Polar Sea was not continuous eastward) seemed confirmed. With bitter disappointment I ascended the height, whence a vast and splendid prospect burst suddenly upon me. The sea, as if transformed by enchantment, rolled its free waves at my feet, and beyond the reach of vision to the eastward. Islands of various shape and size overspread its surface; and the northern land terminated, to the eye, in a bold and lofty cape, bearing east-north-east, thirty or forty miles distant, while the continental coast trended away south-east. I stood, in fact, on a remarkable headland, at the eastern outlet of an ice-obstructed strait. On the extensive land to the northward I bestowed the name of our most gracious sovereign Queen Victoria. Its northern visible extremity I called Cape Pelly, in compliment to the Governor of the Hudson’s Bay Company; and the promontory where we encamped Cape Alexander, after an only brother.” Cape Alexander, a rounded, rocky ridge, two or three hundred feet high, is in lat. $68^{\circ} 56' N.$, long. $106^{\circ} 40' W.$

The route of the party was now south-south-east round the eastern shore of Kent Peninsula, and at six P.M. on the 24th they discovered a large bay running far away to the south and south-east, and studded with islands. The five days allotted for *outgoing* were now expired, and the leader therefore prepared for the return journey. Two miles south of his encampment (lat. $68^{\circ} 43' N.$, long. $106^{\circ} 3' W.$) he discovered and named Beaufort River. There had been no occasion to use the portable canoe they had brought with them; they therefore buried it in the sand at the foot of a noticeable rock on the beach, that they might know where to find it the following year, and thus lightened they commenced retracing their steps to Boat-haven, where Mr Dease had been left in charge of the boats and the remainder of the party. As they marched along in the piercing wind, they noticed a number of sandpipers and other birds lying dead in several places

on the beach, having apparently perished through the intensity of the cold. Herds of deer also were seen migrating southward, and "one magnificent buck," says Simpson, "marched before us, like a doomed victim, for two days, and was shot near our last encampment." On the 29th Simpson and his party arrived at Boathaven, and the return voyage of the whole party up the Coppermine to the winter quarters on Great Bear Lake was forthwith commenced. Hearne, Franklin, and Richardson had each pronounced the ascent of the Coppermine impossible by boats. Simpson, however, had come to another conclusion on the point, and was resolved, at least, to try whether he could not so ascend it.

Sailing westward along the Arctic shore with all despatch, Dease and Simpson arrived in the mouth of the Coppermine on the 3d of September. Next day the boats were towed up to the Bloody Fall. Here ten bags of pemmican were secured for the voyage of the following year in a deep cleft of the rocks, and the masts, yards, rudders, and spare oars, were also placed *en cache*. On the morning of the 5th the boats were passed up the fall, the crews of both hauling on ropes formed of the rigging spliced together for the purpose, and the boats being under the skilful guidance of the famous steersmen M'Kay and Sinclair. In the same manner, but with infinite labour and continuous peril, the boats were carried safely up all the rapids, and, on the 9th September, a well-wooded spot on the banks of the Coppermine, about five miles below the junction of Kendal River, was safely reached. As this was the nearest point of the Coppermine to Fort Confidence, and as it was at the same time a convenient place for repairing the boats in the ensuing spring, it was resolved to deposit these here. They were accordingly hauled up into the wood on the bank, beyond the reach of the spring inundation. A store of pemmican and flour, together with a number of miscellaneous articles, were also concealed here, and the party then set out across the thin, dead woods, towards Fort Confidence, where they arrived safe and well on the 14th September. Thus was the broken and savage channel of the Coppermine safely ascended in boats *for the first time*, and the impossible rendered possible for all subsequent travellers.

CHAPTER X.

IN WINTER QUARTERS, 1838-39—DOES THE AURORA EMIT SOUND?—RETURN TO THE POLAR SEA—FRESH DISCOVERIES—EXPEDITION SUCCESSFULLY CONCLUDED—TRAGICAL DEATH OF SIMPSON—MURDER OR SUICIDE?

ON his arrival at Fort Confidence, Simpson had the satisfaction of finding everything in great order. Ritch, the officer who had been left in charge, had been working upon the buildings during the summer, and had succeeded in making them comparatively weather-proof. He had also purchased a considerable quantity of dried venison from the Indians, and had cured several thousand trout and white fish caught at the different stations near the fort. Thus provided, in a measure, against want, the explorers passed the dark days comfortably, nor were the general transactions at the fort, during the winter of 1838-39, varied by extraordinary adventure or incident.

On the question whether, under any circumstances, the aurora emits *sound*, a good deal has been written by different explorers. On this subject Simpson adduces a curious point of evidence, to the effect that the aurora does emit sound, and this evidence is corroborated by the testimony on personal observation given years later by Admiral Pullen. During the winter of 1838-39, which was much less severe than its predecessor, the aurora was visible every clear night, and was brightest and most active in the mornings before daylight. At about four A.M. a most brilliant exhibition of this singular phenomenon was witnessed by Mr Ritch. "It formed a quadrant," writes Simpson, "issuing from west-north-west, and extending to the zenith. There it doubled on itself, and terminated in a semi-elliptical figure, apparently very near the earth, in rapid motion, and tinged with red, purple, and green. The half ellipse seemed to descend and ascend, accompanied by *an audible sound, resembling the rustling of silk*. This lasted for about ten minutes, when the whole phenomenon suddenly rose upwards, and its splendour was gone. Ritch," continues Simpson, "is an intelligent and credible person; and, on questioning him closely, he assured me that he had perfectly distinguished the sound of the aurora from that produced by the congelation of his breath, for the temperature at the time was 44° below zero. I can therefore no longer entertain any doubt of a fact, uniformly asserted by

the natives, and insisted on by Hearne, by my friend Mr Dease, and by many of the oldest residents in the fur countries, though I have not had the good fortune to hear it myself."

The long months of the winter and spring gradually passed, the dulness of Arctic life in winter being unrelieved by any noteworthy incident. Simpson, however, was delighted that the weather was much milder than in the preceding year, and from this circumstance he augured favourably for the result of his next voyage to the Polar Sea. Winter lingered long and stubbornly around Fort Confidence, and even when the Mackenzie River had broken, and vegetation had made considerable progress at Fort Norman, there was no crack in the ice around the solitary fort at the mouth of Dease River. "At length," exclaims Simpson, with a burst of enthusiasm, "June came with a change, sudden, delightful, and complete. The frost almost entirely ceased; the temperature at mid-day attained from 40° to 70° in the shade; the snow disappeared as though by magic from the surface of the ice and of the ground, forming many brooks and rills of water; willows timidly put forth their buds, and the woods grew vocal with the voice of song. . . . With renovated hopes and thankful hearts, we prepared to try our fortune a third time on the Polar Sea."

On the 15th June, Dease and Simpson, with their exploring party, set out from Fort Confidence for the Coppermine River. The journey was conducted with wonderful intrepidity and spirit, and the labours of the portages, the dangers of the rapids, etc., only seemed to give zest to an enterprise, which Simpson at least enjoyed as much as if it had been a sporting excursion. This officer accepted the discomforts of the journey in the gayest humour. "The journey was pleasant enough," he says, "for, except a little snow one day, and plenty of rain the next, we enjoyed fine weather, besides a picnic party regularly every morning and evening. We crossed mountains, swamps, streams, and frozen lakes; shot two or three deer, and ate them; and finding the rapid Kendal River flooded, passed over on a raft, and on the 19th had the happiness to find the three men left in charge of our boats and baggage safe and well. . . . On the 22d we ran down to the Bloody Fall without stopping to make a single portage, making, in fact, light of the rapids, which the falling of the river rendered much less formidable than on the same day of the previous year, though some of them did not fail to initiate our new hands, by pouring a few harmless waves into the boats. The descent occupied nearly eleven hours, the windings of the river greatly increasing the actual distance. Our deposit of provisions in the cleft of the rock was untouched by man or beast, but slightly affected by damp; . . . the rudders, masts, etc., were found safe on the islet below."

After a few days spent in exploring Richardson River, the explorers emerged from the mouth of Coppermine River on the 3d July, and com-

menced the eastward voyage to the unknown coasts beyond the limits of the last year's voyage. Only five miles were made on the first day, only twenty in the first week, and it was the 18th before the party reached Point Barrow. Ascending the rugged heights of this headland, and gazing eastward, Simpson saw with astonishment and delight that the broad expanse of Coronation Gulf was open and navigable. At the same date of the previous year it had been covered with firm ice, and might have been crossed on foot by the whole party. The wonderful difference in the state of the ice was accounted for by the circumstances that, not only had the past winter been considerably less severe than the preceding one, but that the present summer was much warmer than that of 1838. Favoured by strong winds, and protected from the prevailing streams of ice by the bulwark formed by the Wilmot Islands, the broad inlet of Coronation Gulf was safely and rapidly traversed, and on the 20th the party supped at Boathaven, where on the previous voyage they had so long been detained by ice and hard weather. At Boathaven the wind was blowing strong off land, and the "Castor" and "Pollux" ran rapidly up along the west coast of Kent Peninsula to Cape Franklin, where they were anchored soon after midnight of the same day—exactly one month earlier than the date of Simpson's arrival with his pedestrian party at the same spot in 1838. All the conditions of the present voyage seemed to be different from those of the previous year; for now, instead of finding the grand strait between the northern shore of the American continent and Victoria Land covered, as it was in the summer of 1838, with an unbroken sheet of ice, an open channel was discovered, two miles wide, along the shore. "The slopes and plains, too," says Simpson, "wore a greener and more cheerful aspect, and the ground was comparatively dry. Besides mosses and dwarf carices were to be seen flowers of various hues, wild sorrel, and an abundance of the Labrador tea-plant (*Ledum palustre*), of very diminutive growth, but at this time covered with fragrant white blossoms."

On the 26th the explorers had reached Cape Alexander, and on the following day rounding Trap Cape, they entered a lane of water leading along the shore to the extreme point of their advance the previous year. The top of the cairn which they had there erected had fallen; but they did not wait to rebuild it, and only stopped to dig out the portable canoe they had left buried in the sand; "which done," exclaims Simpson, "we once more entered upon ground never trodden by civilised man." Pushing on in a south and south-east direction along the coast, Dease and Simpson discovered and named Melbourne Island and Roxborough Cape. South of the latter extended Labyrinth Bay, a perfect maze of islands, beyond which a range of picturesque, rocky heights, to which the name of Gloucester Hills was given, extended away southward till they were lost in distance. Ellice River, a stream much larger than the Coppermine, and which enters the

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H. M. SHIP "TRENT" PASSING THROUGH DANGEROUS ICE-FLOES, JUNE 7TH, 1818.

Polar Sea in lat. $68^{\circ} 2' N.$, and long. $104^{\circ} 15' W.$, was discovered and named on the 31st July. Green flats marked by small lakes and rocky knolls extended along its banks. Detained for four days by a heavy crush of ice that encumbered a headland in long. $103^{\circ} 36' W.$, the explorers resumed their voyage on the 5th August, after which date the weather continued remarkably fine for several days. The coast, broken by a succession of bays, and studded by numberless islands, edged away south-eastward as far as Ogden Bay, in long. $101^{\circ} 15'$. From this point it was found to curve round to the north-east, and M'Loughlin Bay, in long. $99^{\circ} 15' W.$, was reached on the 8th. On the 10th the party pushed on north-eastward among islands, and on the evening entered a strait running to the southward of east. Here the rapid rush of the tide from the east assured the leaders that they were now entering an open sea leading to Back's Great Fish River, and on the 11th they entered upon the wide expanse of water, the existence of which they had inferred from the swell of the tide. "On the 13th," writes Simpson, "we ran rapidly south-east and east, and, at the end of fifteen or twenty miles, got clear of the countless islands that had all along, from my last year's pedestrian limit, embarrassed us beyond measure, and hailed with real transport the open sea. . . . On doubling a very sharp point, that offered a lee spot for the boats, I landed, and saw before me a sandy desert. *It was Back's 'Ogle Point' that we had at length reached.*" Dease and Simpson had now reached the estuary of Great Fish River, and thus accomplished the main objects of their three years' expedition. They had at last, in this latest discovery, presented the freedom of the Polar shores to the navigators of all succeeding time.

On the 16th the discoverers steered with flags flying to Montreal Island, and landed in a small bay, on which Captain Back had encamped on his return from Point Ogle to the Great Fish River. Directed by M'Kay, who, it will be remembered, was one of Back's party, Simpson's men soon found a *cache* among the rocks, comprising "two bags of pemmican, several pounds of chocolate, two canisters of gunpowder, a box of percussion caps, and an old japanned tin vasculum, including three large fish-hooks." The pemmican and chocolate were both rotten. The minor articles Messrs Dease and Simpson took possession of, "as memorials," says Simpson, "of our having breakfasted on the identical spot where the tent of our gallant though less successful precursor had stood that very day five years before."

What now remained to be done? "All the objects," writes the author and the hero of this story of discovery, "for which the expedition was so generously instituted, were now accomplished; but Mr Dease and myself were not quite satisfied. We had determined the northern limits of America to the *westward* of Great Fish River; it still remained a question whether Boothia Felix might not be united to the continent on the *other* side of the

estuary!" We now know, through the brilliant discoveries of Dr John Rae, that the great peninsula of Boothia is united to the continent; but in 1839 it was thought by many that this peninsula was cut off from the mainland by a strait running from Boothia Gulf eastward into the Arctic Sea. This supposed strait was the one missing link wanted to complete the North-West Passage, by connecting Regent Inlet with the now completely explored shore of the Polar Sea. With the view of ascertaining whether such a strait existed, Simpson resolved to continue his explorations farther east, and calling the men together, he explained his intention. Three of the party volunteered to accompany him. Nothing is more characteristic of Simpson than his rapidity and directness, and on this occasion he displayed his wonted promptitude. Having selected his volunteers, he ordered supper; and this being despatched, he at once set out, at nine P.M., on the 16th September, for the farthest visible land on the north-east. After rowing for six hours, the party neared the high land to which their course had been directed, and at sunrise on the 17th Simpson climbed the cape, and saw that the coast turned sharply and decidedly eastward. Thence, round to the north-west, stretched a sea free of ice and land. Naming the headland from which he had obtained this cheering prospect, Cape Britannia (lat. $68^{\circ} 3' N.$, long. $95^{\circ} 41' W.$), the leaders again ordered an advance. On the 19th they sailed along in a north-east direction for thirty miles to Cape Selkirk, a headland of lime and sandstone, through which huge granite boulders of every grain and hue protruded. At night several flocks of Canada geese flew over the tents to the southward, a sure sign that winter was rapidly approaching. On the next day, the 20th, the wind was adverse, and after struggling on against the wind among shoals and breakers for three miles, the boats were steered into a small river for shelter. "It was now quite evident to us, even in our most sanguine mood," says Simpson, "that the time was come for commencing our return to the distant Coppermine River, and that any further foolhardy perseverance could only lead to the loss of the whole party, and also of the great objects which we had so successfully achieved. The men were therefore directed to construct another monument in commemoration of our visit; while Mr Dease and I walked to an eminence three miles off, to see the further trending of the coast." They could see along the shore of the continent to the distance of five miles, at which point the coast appeared to bend eastward. Far out in the offing they beheld a number of large islands, and more distant still, in the north-east, appeared a lofty ridge of blue land, which they named Cape Sir John Ross.

The small stream in which the boats had taken refuge was named after them the River Castor and Pollux. Its mouth is in lat. $68^{\circ} 28' N.$, long. $94^{\circ} 14' W.$ From this point the explorers now prepared immediately to return. The strong wind that had forbidden their advance filled their sails,

and carried them rapidly on their return voyage, and on the night of the 20th they were again at Cape Britannia. From this point progress was rapid. At sunset on the 6th September, Dease and Simpson stood out for the nearest point of the as yet unvisited Victoria Land, which they named Cape Colborne. On the 7th and 8th they sailed across two magnificent bays, which they named respectively Cambridge and Wellington Bays. On the 9th the party were nearly opposite, and at a distance of twenty miles from, Cape Franklin. They had now explored the southern shore of Victoria Land to the distance of 156 geographical miles. On the 10th, standing out from this coast, the explorers sailed for Cape Barrow. They reached the mouth of the Wentzel River at ten P.M., and encamped. "Our poor fellows," writes Simpson, "absolutely capered and whooped for joy on finding the beach strewed with driftwood, and enjoyed once more the luxury of a rousing fire, to which we had been strangers since crossing Bathurst Inlet in July." Night and day the explorers pressed on, and at length, "on the 16th," says the leader, "in a bitter frost, the surrounding country covered with snow, we made our entrance into the Coppermine, after by far the longest voyage ever performed in boats on the Polar Sea, the distance we had gone not being less than 1408 geographical, or 1631 statute miles."

The ascent of the Coppermine had been deemed impracticable till Simpson achieved it in the autumn of 1838. Having accomplished this feat successfully once, it was without any apprehension that he prepared to attempt it a second time. On the evening of the 16th September, the expedition had ascended as far as Bloody Fall. Here they left one of their two boats, together with sails, masts, iron fittings, some dressed leather, skins, old nets, oil-cloths, and a quantity of somewhat weather-worn pemmican, as a prize for the first Eskimos that might pass that way. The united efforts of the entire party were then employed in working the other boat as expeditiously as possible up the stream. Escape Rapid, perhaps the most dangerous of all, was safely ascended on the 17th, but not without great labour; for winter had now fairly set in, and the tracking-ground over the ice-sheeted rocks offered very precarious footing indeed. On the evening of the 20th, the party reached the commencement of the portage to Great Bear Lake. Here the remaining boat, the tents, powder, ice-trenches—everything except the books, instruments, and absolute necessaries, were made over in equal shares to the two Indian attendants. From this point the march across the barren grounds was commenced on the 21st, and successfully finished on the evening of the 25th. The two succeeding days were spent by the explorers in settling with the natives at the fort, and in packing up their own goods in preparation for departure. On the 26th, Dease and Simpson with their party took a last leave of Fort Confidence, and set out across Great Bear Lake. "In crossing the wide traverses of the lake," says Simpson, "we took in much water, which, freezing as it

fell, converted the sails, oars, cordage, the boats themselves and everything in them, into shapeless masses of ice. . . . In the body of the lake, betwixt Cape M'Donnell and the Scented Grass Mountain, white partridges lay dead upon the waves, having been drowned in attempting to cross over in the stormy weather." Fort Norman, on Mackenzie River, was reached on the 7th October, and Fort Simpson on the 14th. From that date till the beginning of December, Simpson remained at the fort named, busily engaged writing up and completing the narrative of his expedition, and drawing the charts of his eastern discoveries. On the 2d December he set out from Fort Simpson for his own station, Red River Settlement. The distance is about 1900 statute miles, and the indefatigable traveller performed it in sixty-one days, at the rate of over thirty miles a day, all stoppages included. "Even this excessive toil," writes Simpson's brother and biographer, "was insufficient to exhaust the energies of such tried travellers as were himself and M'Kay and Sinclair, the picked men of the party, who followed him with unshrinking confidence through all dangers and privations. After a day's march of seventy miles, they revelled on the morrow in the delights of a *ball and tea supper*." On the 2d February, Simpson arrived at Red River Colony, after an absence of three years and two months.

At this point ends the history of Simpson's brilliant achievements as an Arctic explorer ; but the circumstances of his premature, tragic, and violent death, which occurred a few months after his return from the far north, must detain us yet a little while, especially as it has been suspected by some that the spirit in which his services were regarded by his relative, Sir George Simpson, then Governor of the Hudson's Bay Company, may have been indirectly the cause of the melancholy event which it is now our duty to chronicle. It is only necessary to premise that though Sir George Simpson was a *relative*, he was not regarded as a stanch well-wisher or zealous *friend* by the young explorer.

The season of 1837, in which Thomas Simpson discovered and surveyed the coast-line of North America, from Return Reef to Point Barrow, was one of uncommon severity, and Governor Simpson, writing in that year to the leaders of the expedition, gave them authority to devote *two summers* if necessary, to the exploration of this tract of coast ; and afterwards to devote a *third* summer to the coast-line to the east of Point Turnagain. This letter, however, did not reach the explorers till after they had completed the exploration of the western tract of the coast ; but the additional authority was eagerly assumed by Simpson for the completion of the exploration of the eastern tract. Writing to Sir George Simpson, the young explorer says : "Fully aware of the imprudence of making statements in public documents which unforeseen circumstances may overthrow, I have not in our reply to their honours' despatch, proposed any specific plan for com-

pleting the surveys which our ensuing voyage may leave unfinished. Indeed, it is impossible at present to say what those unfinished parts may be, or how much ; for though in our letter we state that we only anticipate reaching the Great Fish River—our original limit—yet if we can by any means penetrate farther, you may rely upon it that we will do so. I rejoice that you have resolved at all events upon pushing these discoveries to Hudson's Bay ; and I gladly devote life and limb to their completion. I should greatly prefer finishing the whole before going home to publish any part of our travels. *The present expedition (that of the summer of 1839) must undoubtedly terminate with next voyage ; for our men, boats, goods, provisions—all are worn out and exhausted. . . .* Should another expedition then be necessary, *I would readily undertake to conduct it into the north next year.*" Simpson then goes on to propose a plan for a final expedition to be undertaken in the summer of 1840, for the purpose of completing the survey of Boothia Felix, passing through Fury and Hecla Strait, and returning south to Hudson's Bay by the east coast of North America. The successful manner in which he conducted the expedition of 1839 led him naturally to expect that Governor Simpson would have favourably considered his proposed plan for a final expedition in 1840. We may readily imagine then what must have been the effect, upon a man of his sensitive, not to say excitable temperament, of the following reply to his proposals, which he received when returning flushed with success from having not only reached the mouth of Great Fish River, but discovered a considerable tract of coast-line farther to the east : " We observe that, whether successful or otherwise in accomplishing the survey to Great Fish River, *you are not prepared to continue the operations of the expedition next year*, which is to be regretted, as we were in hopes that, after that section of the coast had been surveyed, you would have been in a condition to push your discoveries to the Straits of the Fury and Hecla. That, however, we find cannot be done under any circumstances ; you may therefore repair to the depot, and take a winter's leave of absence, if agreeable to you, by way of recruiting after your severe and hazardous labours, during which I have no doubt plans will be matured for completing this very difficult and interesting service, which cannot be allowed to fall to the ground while a shadow of hope remains that there is a possibility of accomplishing it."

Thus was Simpson's eager offer to conduct another expedition to the north not only ignored, but a most galling intimation made that the work of completing the service which he had so brilliantly conducted so far should be deputed to another ! The effect of this missive from the governor seems to have driven Simpson to the brink of madness. He at once replied, dating from Fort Simpson, October 25th, 1839, and stating that so far from wishing to avail himself of the proffered leave of absence, it gave him the

greatest pain to think that a whole year must intervene "before the final expedition can be set on foot that is destined to accomplish this *North-East*, as my excursion to Point Barrow in 1837 achieved the *North-West* Passage. . . . As for what remains to be done," continues Simpson, writing evidently under the influence of intense mental excitement, "I am so far from seeking to convert it to my future advantage, that, with my life, I hereby place at your disposal, towards meeting the expenses of the new expedition, the sum of five hundred pounds, being every shilling I am worth at this moment, besides all the future proceeds of my double commission, till the whole charge of the said expedition shall be redeemed. Fame I will have, but it must be *alone*. My worthy colleague on the late expedition frankly acknowledges his having been a perfect supernumerary. . . . The coast, from the Straits of the Fury and Hecla to York Factory (Hudson's Bay) is still more dangerous for boats than that which we have tried so well this season ; but my whole soul is set upon it, and I feel an irresistible presentiment that I am destined to bear the honourable Company's flag fairly through and out of the Polar Sea."

A week before writing the above, Simpson had written to the directors of the Hudson's Bay Company in London, proposing to lead an expedition for the exploration of "the Gulf of Boothia, the only section of the Arctic coast of America now unknown." This proposal was favourably received by the directors, who, writing from London in June 1840, formally accepted Simpson's offer, and appointed him sole commander of an exploring party to continue the survey of the coast from the mouth of Great Fish River to the Strait of Fury and Hecla. That letter, however, which would have filled Simpson's cup of happiness to overflowing, the explorer was destined never to see ; for in the meantime the Governor of the Company, ignorant apparently of the resolution to which the directors had come, had ordered the explorer to repair immediately to England. On the 6th June 1840, Simpson started from Red River, with two companions well mounted and armed, to travel through the United States, and take ship for the "old country."

At this point all clear authentic record of Simpson ends. Six weeks afterwards all America was ringing with a terrible narrative of "Murder and Suicide," of which crimes the traveller was stated to have been the perpetrator. The details of the tragedy, around which the deepest mystery still hangs, were derived from the deposition of one of Simpson's companions, whose statement may or may not be trustworthy, and of two persons, who visited the scene of violence, to witness only its closing act.

James Bruce, of the Red River Colony, appends "his mark" to a sworn statement made before Henry H. Sibley, Justice of the Peace, Clayton County, Iowa, on the 13th July 1840, to the following effect : Bruce left Red River to travel eastward early in June, with a party consisting of a

considerable number of individuals, and after travelling nine days, he, together with Simpson, Antoine Legros, senior, his son Antoine Legros, junior, and John Bird, left the main camp with the view of travelling more rapidly than the remainder of the party towards St Peters. A few days after leaving the main body, Simpson, according to the deponent, complained of being unwell, and wished to return. On the morning of the 14th June, he again insisted upon returning to Red River Colony, and offered a considerable sum of money to each of the others composing the party if they would return with him. Simpson, it seems, appeared very restless and uneasy, and is said to have expressed a conviction that he would never recover from his illness. He complained of no special ailment, and when told that he would have the opportunity of consulting a physician at "Lac qui Parle," he is said to have stated that a physician "would do him no good." On the 14th June, he did turn back with his four companions, and, after travelling till an hour and a half after sundown, and arriving at within a mile of Turtle River, he was asked whether he wished to have the tent pitched. He replied that it was "just as the others pleased." Bruce, John Bird, and the elder Legros, then proceeded to raise the tent. While thus engaged, and standing with his back to the leader, Bruce heard the report of a gun, and on turning round saw that Simpson had shot Bird, who groaned and fell dead. Bruce then saw Simpson turn and shoot the elder Legros, who staggered against the camp cart, and in about two minutes fell. Immediately after the report of the second gun, Bruce and the younger Legros started off and ran a short distance from the cart. Simpson now called out to Bruce, asking him if he (Bruce) was aware of any intention to kill him (Simpson). Bruce answered that he had never heard of any such intention on the part of any one. The explorer then told Bruce that he had shot Bird and Legros because they had intended to murder him that night *for his papers*, and that the laws of England would justify him for so doing. The elder Legros, who was still alive, then asked Simpson to allow his son to go away unharmed, to which the leader consented. Simpson then offered Bruce five hundred pounds to go back with him to Red River Colony and "keep the affair secret." He afterwards asked Bruce if he knew the road back to Red River, and on being answered "yes," he gave orders to harness the horses. The elder Legros now called to his son, bidding him kiss him for the last time. Simpson then asked Legros if it was true that he and Bird meant to kill him, to which the dying man answered, "No." All this time the explorer was standing with his gun in his hand. Bruce and young Legros now went to where the horses were placed, and mounting one each they rode away in the direction of the main camp, which they had so recently left. Immediately after arriving at the main camp, the two fugitives gave the alarm, and having been joined by five men, the whole

party returned to the scene of the murders. On approaching they called out to Simpson, but received no answer. Bruce, however, could see him lying in bed on the further side of the cart. "The report of a gun was forthwith heard, and the whistling of a ball in the air. A remark was made by one of deponent's (Bruce's) party, that said Simpson must have shot himself. This deponent, with his party, then made a circle around the cart aforesaid, to ascertain whether Simpson could be seen to move. Nothing was seen, however, but a dog lying beneath the cart. Said deponent, with his party aforesaid, continued to call upon Simpson by name; and receiving no reply, *they fired at the said dog, and drove him away*. Deponent, with his party, *then discharged their guns at the top of the cart*, with the intention of alarming Simpson, if still alive." After some time Bruce, approaching nearer with one companion, went up to the cart and found that Simpson had shot himself through the head. Simpson was quite dead, as also were Bird and the elder Legros. The bodies of the three were interred in the same grave. A trunk, carpet bag, and double-barrelled gun belonging to Simpson, were brought on to "Lac qui Parle," and there left in charge of Dr Williamson of that place. Bruce concludes his statement by testifying that at no time had Simpson manifested symptoms of insanity, and that "he acted through the whole affair like a man in the possession of his senses."

Of the supposed murders of Bird and Legros there were only two eye-witnesses—Bruce, whose narrative is given above, and the younger Legros, who was never examined. Two other depositions, made respectively by Robert Logan at Red River, 14th October 1840, and James Flett, on the 11th October 1840, refer only to what these deponents are supposed to have witnessed—the circumstances of the finding of the body—and are corroborative so far of Bruce's statement. No papers were found among Simpson's property referring to any circumstances that could have led to this murderous episode of prairie life. The remains of the traveller were removed to the churchyard of Red River Colony, and in his grave the secret of his death lies also buried. But there seem to be only two theories respecting this most pitiful catastrophe. The first is that Simpson died defending his life and the records of his discoveries; and the second, and by far the more likely one, is that his mind, a prey to anxiety, ambition, and to despondency superinduced by neglect real or imagined, had at last become unhinged; that he became the victim of hallucination and suspicion, and that, having in an access of insanity killed Legros and Bird, he either died by his own hand on the arrival of Bruce and his party, as already described, or was shot down by them as a madman and a public enemy.

PART VII.

FRANKLIN'S LAST AND FATAL EXPEDITION—1845.

DR JOHN RAE'S FIRST EXPEDITION—1846-47.

CHAPTER I.

PURPOSE OF THE EXPEDITION—EQUIPMENT OF THE SHIPS—COMMANDER FITZ-JAMES'S JOURNAL — SURGEON GOODSIR — WISE FORBEARANCE — DISCO REACHED—LAST GLIMPSE OF THE SHIPS.

THE fatal expedition of Sir John Franklin, with one hundred and thirty-seven officers and men in the discovery ships "Erebus" and "Terror," is the unique Arctic enterprise, the scanty records of which excite at once the profoundest interest in a great national loss, yet fail to gratify that interest with any but the meagrest details. Within the last thirty years more than forty expeditions have been fitted out from England and America with the view of rescuing the lost, should any such survive, or of bringing home relics or records that might cast some light on their last days. Of these search expeditions, the last was that of Captain Allen Young in the "Pandora" in 1875. From year to year details, few indeed in number, but priceless as illustrating the voyage of the "Erebus" and "Terror," have been gathered by various explorers; and the history of the fate of Franklin and his companions (though it may possibly for ever remain an incomplete record) must be regarded, in the light of the most recent discoveries, as, to this day, unwritten. But Franklin's last expedition, besides being so profoundly interesting, and yet—perhaps necessarily—so imperfectly commemorated in the works of any single writer hitherto, is remarkable for other reasons. It distinctly marks an epoch in scientific naval enterprise in England. It was the last of the great voyages of discovery in the first half of the present century. It closes the great discoveries of the English navigators of that era with the crowning achievement of demonstrating the existence of a North-West Passage. It was the first expedition in which steam was practically employed—for though the "Victory," which Ross

abandoned on the shores of Boothia was a paddle-steamer, the steam-machinery was defective from the beginning, and proved wholly useless among the ice. Finally, this most unfortunate enterprise called forth numerous search expeditions, which, going north on the track of Franklin, formed the school in which the explorers of the last and of the present generation were trained—in which Captain Nares, who now leads the latest and the greatest of all British expeditions along the shores of Smith's Sound toward the North Pole, obtained that experience of Arctic navigation which so well qualifies him for his present undertaking.

After the return of Captain Back from his unavailing and disastrous attempt to reach Repulse Bay in the "Terror" (1836-37), the Admiralty seem to have been discouraged in their desire to prosecute discovery in the Polar seas, and to have regarded the Antarctic regions as a more promising field for exploration. The "Terror" was accordingly repaired, strengthened with a doublet of exterior planking, and, together with the "Erebus," a bomb-vessel of 370 tons measurement, placed under the command of Sir James C. Ross, and commissioned in 1839 for a voyage of discovery toward the South Pole. This voyage was successfully completed in 1843, and again the two good vessels were riding at anchor in the Thames off Woolwich. Meantime considerable impetus had been given to Arctic enterprise by the signal success of Dease and Simpson, who, acting under the commission of the Hudson's Bay Company, had succeeded in discovering and surveying the previously unknown tracts of the shores of the Polar Sea from Behring Strait eastward to the mouth of Back's Great Fish River, and still farther north-eastward to Cape Britannia, opposite the south-east promontory of King William Land. More than this, the Company had projected another expedition, to be undertaken in 1840 by Simpson, for the purpose of tracing the shores of North America eastward (by the supposed strait which was then believed by many to insulate Boothia) round the shores of Boothia Gulf to Fury and Hecla Strait—thus completing the passage between the Pacific and Atlantic. The untimely and melancholy fate of Simpson prevented the Company from carrying out this project. But the idea they had suggested was not lost sight of; and when in 1843 the "Erebus" and "Terror" returned safe and sound after a cruise in South Polar seas, in which many surprising discoveries had been made, the public mind, stimulated by the late successes, and again reverting, as it always had done for centuries, to the unknown North, appears to have soon decided that these well-tried ships would be best employed on another voyage to discover the North-West Passage. This object, however visionary it may have been regarded in earlier times, seemed now to be within the easy compass of naval enterprise. "Ships are but wood, sailors but men," the sceptics might have argued; but the ships could now be fitted with efficient steam

machinery, and thus to some extent armed for the contest with the ice, and the sailors, better trained now than ever, by tradition, by personal experience, and by geographical science, had an important advantage over earlier navigators in the circumstance that they were about to enter on no aimless task, but had a definite, and, in part, a well-known route laid down for them on the chart of the Polar regions. That chart, almost a blank prior to 1819, when Parry, the "first that ever burst into that silent sea," broke the charm of silence and mystery under which these Polar regions had lain so long, by entering Lancaster Sound and sailing westward half-way to Behring Strait, was now marked by the tracks of successive explorers. In the north of the region, ships had sailed from Baffin Bay west to about long. 113°, while in the south different explorers—Cook, Beechey, Simpson, Franklin, Richardson, and Back—had explored the whole North American coast eastward from the Pacific at Behring Strait to the 95th meridian west. The Polar discoveries of the century, it will thus be seen, overlapped each other, in an east and west direction, to the extent of no less than eighteen degrees of longitude. The geographical problem, therefore, of the promoters of renewed Arctic enterprise in 1843 was one simple enough, at least in scope, namely, to demonstrate by discovery the existence of a sea-way connecting the open water between longitude 95° and 113° in the latitude of Barrow Strait and Melville Island on the north, with the open water between the same meridians in the latitude of the shores of the Polar Sea in the south. In other words, the one object of the period was to accomplish the discovery of a complete north-west passage by connecting the discoveries of Parry on the north with those of the overland explorers on the shores of the Polar Sea. "How simple a matter it appeared," exclaims a recent writer, "to connect the water in which Parry sailed to Melville Island in 1819 with Dease and Simpson's easternmost position off the coast of America in 1838." [Dease and Simpson, however, did not reach their "easternmost position" till 1839.] The most eminent scientific men of the day, Sir John Barrow, secretary of the Admiralty, Sir Francis Beaufort, and among explorers, Parry, Sabine, Ross, and Franklin, were eager that Government should fit out an expedition for the accomplishment of this object; and whatever may have been said respecting the hopelessness of the undertaking at that time and subsequently, this at least must be stated as evidence of the sound judgment of the authorities named, that the expedition organised at their suggestion actually and completely achieved the intended purpose—the discovery of a North-West Passage.

Sir John Franklin had been appointed Governor of Tasmania in 1838, and for six years he discharged the duties of his post in such a manner as to win the grateful esteem of the colonists. But Franklin was a born seaman, and his six years of civil employment had only the effect of intensify-

ing his love for the profession in which he had earned his fame. He accordingly returned to England in 1844, in time to find the service full of enthusiasm about the new Polar expedition. No enterprise is so popular in the English naval service as that of exploration amid the icy wastes of the north; and on this, as on former occasions, so general was the eager desire to be in the north-going ships that the "Erebus" and "Terror" might have been wholly manned by lieutenants. A number of the ablest officers in the service had secured appointments,—among them Crozier, Graham Gore, Fairholme, Hodgson, and Des Vœux. Commander James Fitzjames, who had seen two years' service in the China war, and had earned a reputation for distinct naval genius, for indomitable energy and scientific acquirement, was said at one time to have been selected by Government to command the expedition. Arrangements, however, were subject to modification; and when Franklin, on his arrival in England, was heard to say that, as senior Arctic explorer, he considered the command of the expedition a post to which he had the first natural claim, the Admiralty, delighted to obtain the services of an explorer of his experience, were at once prepared to accept him. Lord Haddington, then First Lord of the Admiralty, in the most kindly spirit, suggested that Franklin, who, he believed, was now sixty years of age, might with perfect honour content himself with the fame he had already earned, and spend the remainder of his life at home. "I might find a good excuse for not letting you go, Sir John, in the rumour that tells me you are sixty years of age," said Lord Haddington. "No, no, my lord," exclaimed Franklin; "*I am only fifty-nine!*" In this reply there was the true, living spirit of the fearless navigator; and its enthusiasm swept away the last shred of objection to Franklin's appointment.

On the 5th May the veteran explorer received his official instructions from the Admiralty. He was directed to proceed with all despatch to Lancaster Sound, and, passing through it, to push on to the westward, in the latitude of $74^{\circ} 30'$, without losing any time in *examining any openings to the northward*, as the object of the expedition was to find a sea-way southward to the shores of America. When he should reach the longitude of Cape Walker—about 98° W.—he was to use every effort to penetrate to the southward and eastward of that point, and to pursue as direct a course for Behring Strait as circumstances might permit. He was cautioned not to attempt to pass by the western extremity of Melville Island (where Parry's progress was stopped by a tremendous, and apparently an everlasting, ice-pack), unless his progress southward was closed by a permanent barrier of ice; but in the event of being unable to penetrate either to the southward or westward on account of ice, he was to go *northward* up Wellington Channel in the second summer.

H.M.S. "Erebus" (370 tons), and H.M.S. "Terror" (340 tons), were

thoroughly examined, repaired, and refitted. A warming and ventilating apparatus of the most improved construction was fitted up in each ship; and for the first time in the annals of Arctic exploration, both were fitted with an auxiliary screw and engine of 20 horse-power. A plentiful supply of fuel was taken on board for the purposes of heating the vessels and working the engines. The vessels were also abundantly supplied with every requisite for Arctic navigation—warm bedding, clothing, medicines, and an ample store of provisions, including pemmican and preserved meats. These last were enclosed in tin cases labelled “Goldner’s Patent.” “The miscreant Goldner” already lives in history. It is known that a vast quantity of preserved meat supplied by Goldner to the Royal Navy was found putrid, and was condemned by survey at Portsmouth, and thrown into the sea. There is every reason to believe that the “Patent” preserved meats of the same notorious tradesman supplied to the “Erebus” and “Terror” turned out to be of precisely the same quality; and that, trusting to them as a last resource, the explorers had found in their bitter struggle with starvation that the tinned stores they had relied upon were filled only with corruption. But we dare not anticipate.

On the 19th of May 1845 the “Erebus” and “Terror,” each with sixty-nine officers and men on board, set sail from the Thames. Of the officers of both vessels there shall be much to say in the following pages; and partly for this reason, partly for the higher reason that each of them was a hero, and deserves to live in the affectionate remembrance of his countrymen, the following list of the gentlemen of the vessels is here given:

“EREBUS.”

Captain—Sir John Franklin, Kt., K.C.B.
Commander—James Fitzjames.
Lieutenant—Graham Gore.
Lieutenant—H. P. D. Le Vesconte.
Lieutenant—W. Fairholme.
Ice-Master—James Reid.
Surgeon—Stephen S. Stanley.
Paymaster—C. H. Osmer.
Assist. Surgeon—H. D. S. Goodsir.
Sec. Master—Henry F. Collins.

“TERROR.”

Captain—Francis R. M. Crozier.
Lieutenant—Edward Little.
Lieutenant—George H. Hodgson.
Lieutenant—John Irving.
Ice-Master—Thomas Blankey.
Surgeon—John S. Peddie.
Assist. Surgeon—A. M’Donald.
Sec. Master—Gillies A. M’Lean.
Clerk in Charge—E. J. H. Helpman.

Numerous were the festivities held in honour of the officers and crew of the discovery ships during the early days of May. “Success to the expedition,” greeted with the cheers of men and the tears of women, was drunk at many a splendid board, and responded to by brave men, who vowed in response that if the passage was to be won, they would win it. The whole country thrilled, responsive to the hopes and the noble ambition of the

explorers; and when on the 19th they weighed anchor and passed slowly down the Thames, they carried with them the nation's fervent hopes of a speedy, safe, and successful return. Little did the well-wishers suspect, as they watched the sails grow dim over the flat reaches of the Thames, that the adventurers had gone for ever; that already the dark curtain of fate was lowering above them; that not one man among the gallant company still faintly cheering in the distance—captain, officer, or seaman—would ever return to England again. They had gone in the pride of their youth and strength and hope to die of disease and want for the honour of their officers and of their country; and their fate of itself was such as to plunge the nation in grief. But we are too proud of them to mourn for them. No company of more truly noble hearts ever left the shores of England. Officers and men, comrades from the first in the unity of their hopes and aims, had become brothers before the dread end of all in the kinship of common suffering—in the fellowship of those who together wait for death, yet cheer each other gallantly till the shadow shall come over the snow. No murmur was heard; no mutinous outbreak disturbed the grandeur of the closing scenes. Like the heroes of the “*Birkenhead*,” they went down *on duty*. No greater instance of British discipline illumines the annals of the country. The last officer that fell still bore the insignia of his rank; and it was only to drop on the snow and swoon away into fatal sleep that the last man paused in his duty.

It would have been hard indeed to have parted for ever with Franklin and his heroes on our own shores, but fortunately we are able, by means of the journal of Commander Fitzjames, and the letters of Franklin and Fairholme, to be with them—in spirit, at least—as they cross the Atlantic, to receive their last messages at Disco, and even to descry their last waved farewells, as, a week later, they are preparing to enter the “middle ice,” and cross over to Lancaster Sound.

Commander Fitzjames's “*Journal*,” consisting only of a few pages, printed for private circulation, and now very rare, is of inestimable value for its racy descriptions of the officers of the “*Erebus*,” and of the excellent feeling which pervaded all ranks of the expedition. It was written on board ship mainly for the amusement of a lady, Mrs Coningham, wife of Mr Coningham, sometime M.P. for Brighton, and one of the writer's earliest and dearest friends. But it was a too valuable memorial of an excellent officer and true man—a too valuable record of an enterprise in which the whole nation had an absorbing interest, to be retained for the gratification of a single family. Mr Coningham accordingly edited a privately printed edition of it for distribution among the relatives of the writer and the other officers of the expedition. The editor also presented a copy of the “*Journal*” to Charles Dickens, with permission to make what use of it he pleased. No

man was likely to make a better use of it than the great novelist, who has written so much and so well in the cause of the suffering and the forsaken. Of the "Journal" itself Dickens writes: "Every page of it assures us that Captain Fitzjames added to his high professional qualifications the two rare gifts of a quick and true observation of character and a happy facility in conveying the results of that observation plainly, unaffectedly, and graphically to others. Narrow as its limits are, this interesting journal effects its avowed object of placing us on board ship by the writer's side, of showing us his floating home in its most familiar and most domestic aspect, and of introducing us, in a delightfully considerate and kindly spirit, to the more prominent characters among the officers and men."

The steamships "Rattler" and "Blazer" accompanied the "Erebus" and "Terror" as far as the Island of Rona, about eighty miles beyond Stromness; and in bidding these English ships farewell, the explorers felt as if the last frail link that still bound them to their country was severed. What the more reflective men of the expedition felt in saying this last "good-bye" may be conjectured from the following entry in Fitzjames's journal:

"Their captains" (those of the steamers named) "came on board and took our letters; one from me will have told you of our doings up to that time. There was a heavy swell and wind from north-west, but it began veering to west and south-west, which is fair. The steamers then ranged alongside of us, one on each side, as close as possible without touching, and, with the whole force of lungs of officers and men, gave us, not three, but a prolongation of cheers, to which, of course, we responded. Having done the same to the 'Terror,' away they went, and in an hour or two were out of sight, leaving us with an old gull or two and the rocky Rona to look at; and then was the time to see if any one flinched from the undertaking. Every one's cry was, 'Now we are off at last!' No lingering look was cast behind. We drank Lady Franklin's health at the old gentleman's table; and it being his daughter's birthday, hers too. But the wind, which had become fair as the steamers left (as if to give the latest, best news of us), in the evening became foul from the north-west, and we were going northward instead of westward. The sky was clear, the air bracing and exhilarating. I had a slight attack of aguish headache the evening before, but am now clear-headed; and I went to bed thinking of you and dear William, whose portrait is now looking at me." Thus with exultation at being "off at last," tempered by the affectionate remembrance of friends into high resolve to acquit themselves well, the explorers set their faces towards the merciless north.

Admirable is Fitzjames's picture of his comrades in the officers' mess: "In our mess we have the following, whom I shall probably from time to time give you descriptions of: First lieutenant, Gore; second, Le Vesconte;

third, Fairholme ; purser, Osmer ; surgeon, Stanley ; assistant surgeon, Goodsir ; ice-master (so-called), Reid ; mates, Sargent, Des Vœux, Crouch ; second master, Collins ; commander—you know better than he does himself. . . . The most original character of all—rough, intelligent, unpolished, with a broad north-country accent, but not vulgar, good-humoured and honest-hearted—is Reid, a Greenland whaler, native of Aberdeen, who has commanded whaling vessels, and amuses us with his quaint remarks and descriptions of the ice, catching whales, etc. For instance, he just said to me, on my saying we should soon be off Cape Farewell at this rate, and asking if one might not generally expect a gale off it (Cape Farewell being the south point of Greenland), ‘ Ah ! now, Mister Jems, we’ll be having the weather fine, sir, fine. No ice at arl about it, sir, *unless it be the bergs* ; arl the ice ’ll be gone, sir ; only the bergs, which I like to see. Let it come on to blow, look out for a big ’un. Get under his lee, and hold on to him fast, sir, fast. If he drifts near the land, why, he grounds before you do.’ The idea of all the ice being gone, except the bergs, is racy beyond description. . . . I have just had a game of chess with the purser, Osmer, who is delightful. . . . I was at first inclined to think he was a stupid old man, because he had a chin and took snuff ; but he is as merry-hearted as any young man, full of quaint, dry sayings, always good-humoured, always laughing, never a bore, takes his pinch after dinner, plays a rubber, and beats me at chess—and, he is a gentleman.”

To the noble character of Sir John Franklin we have already had the generous testimony of Dr Richardson and Captain Back. In the following extracts the fine old seaman is sketched with much discernment by Commander Fitzjames, his first officer : “ *6th June.*—To-day Sir John Franklin showed me such part of his instructions as related to the main purpose of our voyage, and the necessity of observing everything, from a flea to a whale, in the unknown regions we are about to visit. He also told me I was especially charged with the magnetic observations. He then told all the officers that he was desired to claim all their remarks, journals, sketches, etc., on our return to England, and read us some part of his instructions to the officers of the ‘Trent,’ the first vessel he commanded in 1818, with Captain Buchan, on an attempt to reach the North Pole, pointing out how desirable it is to note everything, and give one’s individual opinion upon it. He spoke delightfully of the zealous co-operation he expected from all, and his desire to do full justice to the exertions of each. . . . At dinner to-day, Sir John gave us a pleasant account of his expectations of being able to get through the ice on the coast of America, and his disbelief in the idea that there is open sea to the northward. He also said he believed it to be possible to reach the Pole over the ice by wintering at Spitzbergen, and going in the spring, before the ice broke up and drifted to the south, as it

did with Parry on it. . . . 8th.—I like a man who is in earnest. Sir John Franklin read the church service to-day, and a sermon, so very beautifully, that I defy any man not to feel the force of what he would convey. The first Sunday he read was a day or two before he sailed, when Lady Franklin, his daughter, and niece, attended. Every one was struck with his extreme earnestness of manner, evidently proceeding from real conviction. . . . We are very fond of Sir John Franklin, who improves very much as we come to know more of him. He is anything but nervous or fidgety; in fact, I should say remarkable for energetic decision in sudden emergencies, but I should think he might be easily persuaded where he has not already formed a strong opinion.”

There is a capital sketch of Harry Goodsir, brother of the famous Professor Goodsir of Edinburgh University. Young Goodsir, now assistant surgeon of the “Erebus,” had been previously curator of the Edinburgh Museum, was an eminent naturalist, and was joint author, with his brother, of “Anatomical and Pathological Observations,” and other papers. Here we have him in his habit as he lived: “I can’t make out why Scotchmen just caught always speak in a low, hesitating, monotonous tone of voice, which is not at all times to be understood; this is, I believe, called ‘canniness.’ Mr Goodsir is ‘canny.’ He is long and straight, and walks upright on his toes, with his hands tucked up in each jacket pocket. He is perfectly good-humoured, very well informed on general points, in natural history learned, was curator of the Edinburgh Museum, appears to be about twenty-eight years of age, laughs delightfully, cannot be in a passion, is enthusiastic about all ‘ologies, draws the insides of microscopic animals with an imaginary pointed pencil, catches phenomena in a bucket, looks at the thermometer, and every other meter, is a pleasant companion, and an acquisition to the mess. . . . 10th.—A fine clear sunset at a quarter to ten, and Goodsir examining ‘mollusca’ in a microscope. He is in ecstasies about a bag full of blubber-like stuff, which he has just hauled up in a net, and which turns out to be whales’ food, and other animals.”

And so with a light and pleasant, but skilful touch, Fitzjames fills in the portraits of the men who were to be his companions during a long and arduous, but hopeful struggle for all of them in what is perhaps the gloomiest and most tragic consummation in our history. Crouch, the mate, “is a little black-haired, smooth-faced fellow, good-humoured in his own way; writes, reads, works, draws, all quietly; is never in the way of anybody, and always ready when wanted; but I can find no remarkable point in his character, except, perhaps, that he is, I should think, obstinate. Stanley, the surgeon, I knew in China. He was in the ‘Cornwallis’ a short time, where he worked very hard in his vocation. Is rather inclined to be good-looking, but fat, with jet-black hair, very white hands, which are always abominably

clean, and the shirt sleeves tucked up, giving one unpleasant ideas that he would not mind cutting one's leg off immediately—'if not sooner.' He is thoroughly good-natured and obliging, and very attentive to our mess. Le Vesconte, you know. He improves, if possible, on closer acquaintance. Fairholme, you know, or have seen; is a smart, agreeable companion, and a well-informed man. Sargent, a nice, pleasant-looking lad, very good-natured. Des Vœux I knew in the 'Cornwallis.' He went out in her to join the 'Endymion,' and was then a mere boy. He is now a most unexceptionable, clever, agreeable, light-hearted, obliging young fellow, and a great favourite of Hodgson's, which is much in his favour besides. Graham Gore, the first lieutenant, a man of great stability of character, a very good officer, and the sweetest of tempers, is not so much a man of the world as Fairholme or Des Vœux, is more of Le Vesconte's style, without his shyness. He plays the flute dreadfully well, draws sometimes very well, sometimes very badly, but is altogether a capital fellow. Here ends my catalogue. I don't know whether I have managed to convey an impression of our mess, and you know me sufficiently to be sure that I mention their little faults, failings, and peculiarities in all charity. I wish I could, however, convey to you a just idea of the immense stock of good feeling, good humour, and real kindness of heart in our small mess. We are very happy."

These delightful chatty sketches, written to amuse a lady in England, who had specially requested Fitzjames to inform her whether his comrades were "good-natured," furnish us with material for forming probable conjectures with respect to the usual employments of the mess of the "Erebus," and to guess at the manner in which these fine fellows would comport themselves when the days of darkness and disease came upon them. But we will not anticipate disaster just yet, and will make room here for the picture which the above extract suggested to the fine imagination of Dickens: "They were very happy!" exclaims the creator of Captain Cuttle. "What a pathos in those four simple words, read by the light of our after-experience. They are very happy. How delightfully the little strokes of character in the 'Journal' open the view to us of the cheerful, simple-hearted social intercourse of the sailor-brotherhood! How vividly between tears and smiles we see the honest faces round the mess table, as day by day draws the good ship nearer and nearer to the cruel north. Purser Osmer, taking his after-dinner pinch, and playing his rubber; long, straight, pleasantly-laughing Goodsir, matching his learning and his science against ice-master Reid and his natural north-country sharpness; plump, white-handed surgeon Stanley, with an attentive eye to the appointments of the mess table; little, quiet, steady, black-haired Crouch, listening to the conversation, while sweet-tempered Des Vœux keeps it going pleasantly, and Graham Gore sits near at hand, ready to while away the time, when the talk flags, with a tune on

his flute. One by one these members of the doomed ship's company appear before us again : fold by fold the snowy veil wreathed over them is melted from view, and the dead and gone come back to us for a little while from the icy keeping of Death."

The greater part of Fitzjames's "Journal" concerns itself naturally with the writer's brother officers ; but he was a man of sympathy too wide and genuine not to interest himself in the men as well. "Our men," he writes, "are all fine hearty fellows, mostly north countrymen, with a few men-of-war's men ;" and with this last touch we have a complete view of the *personnel* of the ship. From this point onward the entries in the "Journal" refer to matters in general—the progress of the ships, notes on the weather, and the little incidents and anecdotes that served to enliven life on ship-board. A pleasing instance of the considerate, yet firm, discipline which Fitzjames maintained on board the "Erebus" is of interest as supplying some reason for believing that when the days of trial came the proper and natural relations between the officers and men were maintained throughout. It was feared that on reaching Stromness some of the men might wish to draw back from their engagement, and it is not customary for north-going ships to allow any of the men to land there. "But two men," writes Fitzjames, "wanted to see, one his wife, whom he had not seen for four years, and the other his mother, whom he had not seen for seventeen ; so I let them go to Kirkwall, fourteen miles off. I also allowed a man of each mess to go on shore for provisions. They all came on board to their leave, but finding we were not going to sea till the following morning, four men (who probably had taken a *leettle* too much whisky)—among them was the little old man who had not seen his wife for four years—took a small boat that lay alongside, and went on shore without leave. Their absence was soon discovered, and Fairholme, assisted by Baillie and somebody or other, brought all on board by three o'clock in the morning. I firmly believe each intended coming on board (if he had been sober enough), especially the poor man with the wife ; but, according to the rules of the service, these men should have been severely punished, one method being to stop their pay, and give it to the constables or others who apprehended them. It struck me, however, that the punishment is intended to prevent misconduct in others, and not to revenge *their* individual misconduct. Men know very well when they are in the wrong ; and there is clearly no chance of any repetition of the offence until we get to Valparaiso or the Sandwich Islands ; so I got up at four o'clock, had everybody on deck, sent Gore and the sergeant of marines below, and searched the whole deck for spirits, which were thrown overboard. This took two good hours ; soon after which we up anchor, and made sail out. I said nothing to any of them. They evidently expected a rowing, and the old man with the wife looked very

sheepish, and would not look me in the face ; but nothing more was said, and the men have behaved not a bit the worse ever since."

Fair progress is made during the early days of July. On the 11th and 12th the wind is high, the colour of the sea, which advances upon them in a never-ending succession of long and lofty rollers, is a "beautiful, delicate, cold-looking green." Amid pouring rain and thick mantling fogs, on the 14th the "Erebus" and "Terror," together with the store ship, which is to accompany them to Disco, sail on slowly, and in close company. It is a dull day, and the officers while away the time getting out and arranging their books, and find to their satisfaction that among them they can set up quite a considerable library. Every one is helpful and kindly to his neighbour. The cook, who appears to have acquired his skill on land, is at a loss how to make the salt fish a little less salt ; and in his bewilderment he slings the fish overboard and tows it through the brine. This peculiar method of putting out the fire by adding fuel to it provokes the ridicule of the "old salt," ice-master Reid. "What are you making faces at there?" shouts the practical Aberdonian. "That's not the way to get the *sarlt oot*. Boil the fish first, then keep it near the fire a while, just below the boil." The recipe, we may be sure, was not forgotten. Later in the evening, Reid and merry purser Osmer have a little quiet symposium, the ice-master recounting his adventures when he was captain of a whaler, and Osmer telling humorous stories of his experiences in the "Blossom" with Beechey in 1825-28, and of wild life on the Canadian lakes, where he afterwards served. The two old salts drink together the never-failing sea toast, "Sweethearts and wives," and ask Fitzjames to join them. "Hav'n't got a sweetheart, and don't want a wife," responds Fitzjames, who concludes the entry in his "Journal" for that evening with an affectionate good-night to the Coninghams in England.

Not yet, for a little while, shall these halcyon days come to an end.

The sea is calm on the 16th, and Fitzjames and a few more take a boat and look in on the fellows in the "Terror" to have a few minutes' talk. The 17th is cloudy, and at night a bright light is seen flickering on the verge of the horizon on the north-east. "It may be the aurora," suggests Gore. "What would you say to the ice-blink?" asks the weather-wise ice-master. Fitzjames thinks it is the reflection of sunset, and says that it has all the effect of a large town, twenty miles off, on fire. The 18th June is "Waterloo Day," and old Sir John after dinner asks his officers to join him in drinking the health of "the Duke." On the same day the "crow's-nest" is rigged. "It is usually," says Fitzjames, "a cask, lined with canvas, at the fore-topmast head, for a man to stand in to look out for channels in the ice ;" but on board the "Erebus," it is a more elaborate and scientific structure, which somebody names a "hooped cylinder." Ice-

master Reid, who will spend in it many a cold, weary, and anxious watch, looks aloft at his perch critically, and like a thrifty Scotchman as he is, pronounces it "a very expensive one." On this same day, Fitzjames anticipated promotion in his absence (that event having been talked of in England as likely to take place on the brevet of the 18th June), and at night he indulged in a modest glass of brandy and water in honour of the occasion, and then sat down to his journal to have a chat with the distant Coninghams about the pleasing event. As he writes, Reid comes into the cabin, and looks much perplexed at seeing the commander writing so constantly. "Why, Mister Jems," he says, "you never seem to me to sleep at arl, you're arlways writin'."

The 21st brings the "Erebus," the "Terror," and the accompanying store ship into Davis Strait, and the wonders of the Arctic seas begin to rise around. Bottle-nosed whales plunge and frolic near the vessels, and great tree-trunks—the bark of them rubbed off by the ice—go floating by. A storm springs up on the following day (Sunday), and as the ships are rolling tremendously, it is necessary to assemble the men on the lower deck for the reading of the church service. Sir John was to have given a dinner-party on the Monday; but the ships continue to pitch so freely, that the idea has to be abandoned. On the 24th, warm clothing is given out, for the Arctic cold now pinches keenly, and on the 25th, Greenland, "rugged, and sparkling with snow," heaves in sight far away on the right. All is calm now: the sea shows a delicate blue in the shadows, and is so still, that the mast-heads of the "Terror," which is half a mile off, are reflected alongside the "Erebus." On the 29th, they pass some lofty icebergs, which look like huge masses of pure snow, furrowed into caverns and dark ravines. "The Whalefish Islands are neared on the 1st July. There are no fewer than sixty-five icebergs in sight, and the vessels sail in among a shoal of some hundred walruses, tumbling over one another, diving and splashing with their fins and tails, and looking at the ships with their grim, solemn-looking countenances and small heads, bewhiskered and betusked." The well-known Danish settlement of Disco is reached on the 2d. Here the scenery strikes the strangers as grand but desolate beyond expression. It does not depress merry Osmer the purser, however, for Fitzjames comes upon that cheerful officer at midnight doing a little dance to himself on deck. "What a happy fellow you are, always in good humour," says Fitzjames. "Well, sir," returns the purser, "if I am not happy here, I don't know where else I could be." On the 4th, they drop anchor at Disco, and every man is ashore "running about for a sort of a holiday, getting eider-ducks' eggs, curious mosses, and plants, and shells." It is reported at Disco that the season is milder and earlier than ever was known before, and the officers are all certain they shall get through the Passage this season, and in their last letters home they ask

their friends to write to them at Petropaulovski, a seaport away beyond the rocky gate of Behring Strait, on the coast of Asiatic Russia. Fitzjames's belief is that there is "a good chance of getting through this year, if it is to be done at all;" and in a little access of professional conceit, which we can so well forgive him now, he rather hopes that they may be detained a little in the ice, that he may "have a winter for magnetic observations."

At Disco the last letters are written, and the long farewell to life in England is taken. A letter from Lieutenant Fairholme well describes the occupations of the explorers during the few days they remain at Disco: "We have anchored in a narrow channel between two of the islands, protected on all sides by land, and in as convenient a place for our purpose as could possibly be found. Here we are with the transport lashed alongside, transferring most actively all her stores to the two ships. I hope that this operation will be completed by to-morrow night, in which case Wednesday will be devoted to swinging the ships for local attraction, and I suppose Thursday will see us under way with our heads to the northward. We have had the observatory up here, on a small rock on which Parry formerly observed. . . . Of our prospects we know little more than when we left England, but look forward with anxiety to our reaching 72°. . . . On board we are as comfortable as it is possible to be. I need hardly tell you how much we are all delighted with our captain. He has, I am sure, won, not only the respect, but the love of every person on board by his amiable manner and kindness to all; and his influence is always employed for some good purpose both among the officers and men. He has been most successful in his selection of officers, and a more agreeable set could hardly be found. Sir John is in much better health than when we left England, and really looks ten years younger. He takes an active part in everything that goes on, and his long experience in such services as this makes him a most valuable adviser. *July 10th.*—The transport is just reported clear, so I hope we may be able to swing the ships to-morrow and get away on Saturday. We are very much crowded; in fact not an inch of stowage has been lost, and the decks are still crowded with casks, etc. Our supply of coals has encroached seriously on the ship's stowage; but as we consume both this and provisions as we go, the evil will be continually lessening." On the 12th Sir John Franklin writes his last official letter to the Admiralty, reporting progress down to that date, stating that "the ships are now complete with supplies of every kind for three years; they are therefore very deep; but happily we have no reason to expect much sea as we proceed farther;" and concluding handsomely with the words—"It is unnecessary to assure their lordships of the energy and zeal of Captain Crozier, Commander Fitzjames, and the officers and men with whom I have the happiness of being employed on this service."

And now all is ready for the departure, and Commander Fitzjames snatches a moment to finish his journal with a few hurried words to Mrs Coningham. "Your journal is at an end," he writes, "at least for the present. I do hope it has amused you, but I fear not; for what can there be in an old tub like this, with a parcel of sea-bears, to amuse a 'lady fair!' This, however, is a *façon de parler*, for, I think, in reality, that you will have been amused in some parts, and interested in others; but I shall not read back, for fear of not liking it and tearing it up." On the 11th he writes a letter of final farewell to his friends, in which the closing words are, "God bless you and all belonging to you;" and this benison from the vanishing ship is the last articulate message that reaches us from the "Erebus." On the night of the 12th, the heavily-laden ships sail slowly away north-west through Waigat Strait, between Disco and the mainland, and the store ship returns home. Once again, on the 26th of July, the ships are seen by the "Prince of Wales," whaler, moored to an iceberg, in lat. 74° 48' N., long. 66° 13' W. (near the south entrance to Melville Bay), waiting for an opportunity of entering or rounding the "middle ice," and making for Lancaster Sound. A boat with Commander Fitzjames and six more officers leaves the "Erebus" and boards the "Prince of Wales." All are in high hopes and excellent spirits. They invite the whaling master, Captain Dannett, to come and dine with Sir John Franklin on the following day; but the friendly meeting never took place. A favourable breeze sprang up, and Captain Dannett parted company and sailed away southward and homeward. And as he gave orders to bear up for England, he looked at the "Erebus" and "Terror" as they faded in the distance, and saw the last of these good ships, before they disappeared for ever.

CHAPTER II.

DR JOHN RAE'S EXPLORATIONS, 1846-47 — ARRIVAL AT REPULSE BAY — NEW GROUND ENTERED UPON — THE ISTHMUS CROSSED — WINTER QUARTERS — SUCCESSFUL TERMINATION OF THE EXPEDITION.

AMONG the last letters written on board the "Erebus" at Disco, was one from Sir John Franklin to his old comrade Lieutenant-Colonel Sabine, stating that the expedition, which was expected to return, at latest, after having been two winters among the ice, might be detained a year beyond that time, and begging that friends in England might be prepared for that contingency. The letter, dated 9th July 1845, informs Sabine that the "Erebus" and "Terror" had provisions, fuel, clothing, and stores on board for three years complete from that date, and concludes: "I hope my dear wife and daughter will not be over-anxious if we should not return by the time they have fixed upon; and I must beg of you to give them the benefit of your advice and experience when that time arrives, for you know well that without success in our object, even after the *second winter*, we should wish to try some other channel if the state of our provisions and the health of the crews justify it." The completeness of the appointments of the exploring ships, and the well-known determination of their commander, to hold out to the last rather than return without accomplishing his object, for some time held the anxiety of the public, with respect to the fate of the expedition, in check; and it was not till after the explorers had been away three winters that the first of the long list of searching expeditions set out from England. Meantime, however, the work of Arctic exploration was again taken up with vigour, enthusiasm, and brilliant success, by the Hudson's Bay Company.

It will be remembered that the directors of the Company had projected an expedition for the purpose of tracing the north coast of America from the river Castor and Pollux—discovered by Dease and Simpson in 1839—to the strait of Fury and Hecla. The sole command of this enterprise, which was to have been undertaken in 1840, was conferred upon Thomas Simpson by official letter written in London in June 1840; but before that letter

reached America, Simpson had been laid in the same prairie grave with his victims or enemies, Legros and Bird. For some years after the startling and melancholy death of Simpson, the project of completing the survey of the north coast of America was held in abeyance, but in the spring of 1845, when England was fitting out the "Erebus" and "Terror" for another great effort to discover a North-West Passage, the directors of the Hudson's Bay Company determined to resume the survey of the north shores of British America; and Sir George Simpson, Governor-in-Chief of the Company's territories, offered the command of an expedition, to be organised with this object, to Dr John Rae, then one of the traders in the Company's service. Dr Rae gladly accepted the appointment, and the importance of his numerous discoveries, both in this and in a subsequent expedition when he brought home the first authentic intelligence of the fate of Franklin and his companions, is the best evidence of his qualifications for the post.

The new expedition, consisting of thirteen persons, including two Eskimo interpreters, was to set out from Churchill, one of the Company's stations about 200 miles north-north-west of York Factory on Hudson's Bay, and was to proceed north in two boats along the west shore of the great bay, and up Rowe's Welcome to Repulse Bay. Thence they were to cross over the isthmus connecting Melville Peninsula with the mainland (which, according to the Eskimo story told to Parry, was no more than a three days' march), and, meeting the sea at the other side of the isthmus, were to track the coast round to the east until they should connect their discoveries with those of Dease and Simpson or of the Rosses. If Boothia should prove an island, Rae, it was expected, would be able to follow round the coast eastward to Castor and Pollux River of Dease and Simpson; if it should prove a part of the mainland, on the other hand, it was hoped he would be able to track the coast round to some point which had been visited by the Rosses in the "Victory" in 1829-33, and thus complete the survey of the west shores of Prince Regent Inlet.

In October 1845 Rae had reached York Factory from the interior of the Hudson Bay territories. He had experienced some difficulty in getting volunteers, as a belief had got abroad that he and all his party, if they escaped starvation from the scarcity of food in the region to which they were bound, were certain to be frozen to death from scarcity of fuel. This might be considered another instance of the alternative, "out of the frying-pan into the fire," if the ideas of "frying-pans" and "fires" were not so foreign to the subject and the situation. After the commencement of October progress along the coast within the Arctic circle is hardly to be hoped for, "nevertheless the boats that had been built for the expedition were launched and put in order for sea. They were fine-looking, strong, clinker-built craft, 22 feet long by 7 feet 6 inches broad, each capable of

carrying between fifty and sixty *pieces* of goods of 90 lbs. per piece. They were each rigged with two lug-sails, to which a jib was afterwards added, under which, with a strong breeze of wind, they were found to work admirably. They were named the 'North Pole' and the 'Magnet.'" Rae occupied himself during the winter months in taking observations and completing the equipment of his party. He added to his stores a number of articles that had never been used on any former expedition, and as Dr Rae is essentially an explorer of our own day—few improvements in Arctic travelling having been introduced since last he visited the shores of North America—it may be well to quote his short statement of the additions to his equipment, upon which he depended for some degree of comfort during the winter he was to spend at Repulse Bay. "Among other articles which I thought might be useful," he says, "were a small sheet-iron stove for each boat, a set of sheet-iron lamps for burning oil after the Eskimo fashion, some small kettles (commonly called conjurers), having a small basin and perforated tin stand for burning alcohol, a seine net, and four small windows, each of two double panes of glass. An oiled canvas canoe was made, and we also had one of Halkett's air-boats, large enough to carry three persons. This last useful and light little vessel ought to form part of the equipment of every expedition."

On the 13th June 1846, the "North Pole," carrying Dr Rae and five men, and the "Magnet," with five men, set sail from York Factory along the coast northward to Churchill. After a rough day, the explorers cast anchor close to the shore at ten o'clock P.M. The night was beautiful, and as all the men had gone to sleep, there was nothing to interrupt the silence around but the blowing of a white whale, the musical note of the long-tailed duck, or the harsh scream of the great northern diver. Yet though the night was beautiful and still, Dr Rae found it impossible to sleep. On the first night of such an undertaking as that of which he was the leader, the mind is busy at once with the past and with the future, and the mixed emotions, natural under the circumstances, banish sleep. Yet Rae could not attribute his wakefulness to any inferiority of sleeping accommodation. He was lying on a number of bags of flour, small but hard packed, over which he had thrown a blanket. Each of the bags was like a round boulder, and it was only at three or four points that his body was supported by them—at other points it being necessary for him to accommodate himself to the inequalities of the surface in the best way he could. "To a man," writes Rae, "who had slept soundly in all sorts of places—on the top of a round log, in the middle of a swamp, as well as on the wet shingle beach—such a bed was no hardship; but thoughts now pressed upon me which, during the bustle and occupation of preparation, had no time to intrude. I could not conceal from myself that many of my brother officers, men of great experi-

ence in the Indian country, were of opinion that we ran much risk of starving ; little was known of the resources of that part of the country to which we were bound ; and all agreed that there was little chance of procuring fuel, unless some oil could be obtained from the natives. Yet the novelty of our route, and of our intended mode of operations, had a strong charm for me, and gave me an excitement which I could not otherwise have felt." Next day the boats were stopped at mid-day by ice, and now Rae found the advantage of having nailed sheet copper along the bows of the boats, by which they were protected against the sharp edges of the floating masses. Progress was very slow for many days, but the various kinds of ducks afforded sport and food, and on the 22d a deer was killed. On the 26th, Cape Churchill was doubled. From Nelson River to this cape, the ground is low and flat, with not a single rock *in situ* ; but from the cape to Fort Churchill, the land gradually became high and rocky. On the 27th, the boats arrived at the fort, and Rae was most kindly welcomed by Mr Sinclair, the chief trader in charge.

Here Rae remained over the 4th July, on which day he received his letter of instructions from Sir George Simpson ; and on the following morning, having taken Ooligbuck and one of his sons on board to act as interpreters, he set sail westward across Button's Bay. Favoured by tolerably fair winds, Rae steered past Chesterfield Inlet on the evening of the 13th July ; and on the night of the 14th, he sighted Cape Kendall on Southampton Island. "On the 21st and 22d," says Rae, "we had a continued struggle amongst heavy and close-packed ice, until we reached Wager River estuary, where we were detained all day by the immense quantities driving in with the flood, and out again with the ebb tide, which ran at the rate of seven or eight miles an hour, forcing up the floes into large mounds, and grinding them against the rocks with a noise resembling thunder. . . . To get to a small bay a mile and a half to the west of us, we had more than once to pull for our lives, as the eddy currents already spoken of caused such sudden and uncertain movements among the ice that there was no telling on what side we were to expect it. With much difficulty we entered our harbour, and pulled half a mile up, so as to be safe from the ice, which we had reason to expect would come in with the flood. The latitude of our new anchorage was 65° 16' 8" N.," the most northerly point of land on the south side of Wager River. Pulling out of Wager River on the 24th, Rae stood on his course to the north, and favoured by a fine breeze, he rounded Cape Hope at seven in the evening, and ran into Repulse Bay, on the shores of which he was to commence original exploration.

On the following afternoon, the boats were run into Gibson Cove, on the shores of which, to their great joy, the explorers beheld four Eskimos. Rae immediately landed, and taking Ooligbuck's son with him as interpreter, walked up to the natives, calling out, "Teyma" (peace), and shook hands

with them. At first the natives were much afraid, but after a few words with the interpreter, they became quite at ease, and chatted and laughed with great good-nature. Rae obtained from them a few items of valuable information, and one of them drew a chart, from which he learned that the isthmus, from Repulse Bay to the sea on the west side of Melville Peninsula, was not much more than forty miles across, and that water communication by means of a chain of deep lakes existed along thirty-five miles of the route, so that he would only have to haul his boat over about five miles. None of the Eskimos had seen or heard anything of Sir John Franklin.

The party to which these natives belonged consisted of twenty-six individuals, and on the morning of the 26th, Rae was favoured with a visit of a number of the ladies of the tribe—three old, three young, and all married. They appear to have been quite persons of quality, as things go among the Eskimos. “They were all tattooed on the face, the form on each being nearly the same,—viz., a number of curved lines drawn from between the eyebrows up over the forehead, two lines across the cheek from near the nose towards the ear, and a number of diverging curved lines from the lower lip towards the chin and lower jaw. Their hands and arms were much tattooed from the tip of the finger to the shoulder. Their hair was collected in two large bunches, one on each side of the head, and a piece of stick about ten inches long and half an inch thick being placed among it, a strip of different-coloured deer-skin is wound round it in a spiral form, producing far from an unpleasing effect. They all had ivory combs of their own manufacture, and deer-skin clothes with the hair outwards; the only difference between their dresses and those of the men being that the coats of the former had much larger hoods (which are used for carrying children), in having a flap before as well as behind, and also in the greater capacity of their boots, which come high above the knee, and are kept up by being fastened to the girdle.” One of these women had been on board the “Fury” and “Hecla,” both at Winter Island and Igloodik, twenty-three years previously, and still wore round her wrists some beads which she had obtained from Captain Parry.

Dr Rae had noticed and explored a small stream which fell into Repulse Bay about a hundred yards from where he had landed in Gibson Cove. Pursuing the course of this stream, he found that it had its source in one of the deep lakes which lay on his route from the head of the bay to the sea on the other side of the isthmus. He resolved to have the boat which he meant to take with him dragged up this stream, and on the morning of the 26th, after having been interviewed by the Eskimo ladies, he had all the cargo of the boats placed in a place of security on shore, ordered the “Magnet” to be safely moored in the land-locked harbour of Gibson Cove, and then sent away his men, assisted by four Eskimos, to drag the other boat, the “North Pole,”

up the stream above mentioned. Late at night the men returned after an absence of fourteen hours. With great labour they had succeeded in dragging the boat three miles up the stream through a succession of rapids, in which the channel was so obstructed with boulders that most of the party were almost constantly up to the waist in ice-cold water extricating the boat from among the rocks. The worst part of the stream, however, had now been passed, and the boat had been left at a point only a mile and a half from the lake from which it issued. Early next morning the men were sent away, each carrying a load, to where the boat lay, and the leader himself, having left two men to guard the property on the shore, followed after mid-day.

Rae was now engaged in the exploration of hitherto unknown land. His route was north-north-west, alternately poling or tracking along successive lakes, or carrying the provisions and dragging the boats over intervening portages. On the 29th, he came upon the largest lake he had yet seen, and named it Christie Lake. On the same day he had the equally great gratification of shooting a fine buck with an inch and a half of fat on his haunches; and in the evening, after a fatiguing walk over hill and dale, he obtained the first glimpse of the sea of which he was in search, and which he found covered everywhere with solid ice. The advance during the next two days was slow and laborious; but on the afternoon of the 1st August, after traversing a lake, the shores of which were covered with rich pasturage, and a great variety of flowers, the "North Pole" was dragged over many shallows to high-water mark of the unknown Arctic Sea, in lat. $67^{\circ} 13' N.$, long. $87^{\circ} 30' W.$; and Rae beheld before him a wide expanse of icy ocean that had never before been seen by any civilised man. The native name of this immense bay on the west side of Melville Peninsula is Akkoollee. It is now known as Committee Bay, the southernmost arm of Prince Regent Inlet.

Early next morning as Rae was trying to force a passage along the ice-encumbered shore, he passed a small point on which were two Eskimo tents. He landed with an interpreter, and called once or twice outside the door of one of the tents, when an old woman, apparently just out of bed, made her appearance, drawing on her great boots. She showed no symptoms of alarm though Rae was the first European she had ever seen. Her husband soon appeared, and their report of the state of the ice in Committee Bay was anything but encouraging. "From a chart drawn by the woman, who, as is usual (at least among the Eskimos), was much the more intelligent of the two," writes gallant Dr Rae, "I was led to infer that there was no opening leading into the large bay but through the Strait of the Fury and Hecla, and Prince Regent Inlet."

Rae spent a number of days at the head of Committee Bay, in the vain

hope of having an opportunity of sailing round and surveying its shores. But ice, fog, and storm were arrayed against the explorer, and for the time he was baffled. He succeeded, however, in visiting and naming a few points, inlets, etc., along the southernmost shores of the bay, which may here be enumerated. On the 2d August, having pushed on eight miles along the west shore, he reached and named Point Hargrave, a rugged promontory of granite and gneiss, without a blade of grass or a cushion of moss to relieve its bald and grim appearance. Next morning he was completely stopped by ice, and obliged to put ashore, where he found a large wooden sledge, constructed evidently of the planks of some vessel (probably of the "Fury" or "Victory"), as there were augur holes in it. He cut it up for fuel, and he and his men tasted once more the delights of a hot meal, to which, for some time, they had been strangers. A few miles farther on he reached and named Cape Lady Pelly. In travelling along this coast Rae and his companions were much fatigued, as they often sank knee-deep "in a very adhesive mud." It was evident that no material progress was to be made in this direction, and Rae soon resolved to retrace his steps, cross over to the shores of Melville Peninsula, and try to push on along the east shore of Committee Bay. With great difficulty he reached this shore and discovered a headland to which he gave the name Cape Thomas Simpson, in honour of his predecessor in Arctic travel. On the 7th a heavy gale sprang up and drove the boat among the ice off shore. In this situation the party were exposed to constant danger "from the falling, or breaking off of overhanging masses (some of them 20 feet in height), which were crashing all around us, and under which we had to pass." At night the explorers secured the boat, raised an oil-cloth to keep off the rain that fell in torrents, and having had the usual cheerful supper of pemmican and cold water, lay down to sleep. On the 8th, Rae was reluctantly forced to the conclusion that the whole of the bay was full of ice, and that exploration during the present season was impracticable. If the bay had not been completely packed the gale of the previous day would have cleared it. There was now only one course left—to return to the place from which the party had started. "It was with a sad heart," writes Rae, "that I turned the head of the boat towards our starting-point, where I purposed to await some favourable change in the state of the ice, and at the same time learn how the people left at Repulse Bay were getting on with preparations for wintering." The starting-point was reached on the same day, and on the 9th, Rae, with three of his men, set out to walk back across the isthmus to Repulse Bay, where they arrived hungry, weary, and foot-sore—for their shoes and socks were entirely worn out long before they reached their destination—on the afternoon of the 10th August.

At Repulse Bay, Rae found the men he had left in charge of the

remaining boat and the stores, in good health. A feast of venison and fish was soon prepared for the weary and hungry travellers, and as the venison was cooked first, the men began their meal with steaks and finished it with salmon as second course. Rae then sat down to "think out" his course for the future. "This was to me," he writes, "the most anxious period during the expedition; nor will this appear strange when I mention that it was necessary to decide, and that promptly, on one of two modes of proceeding, namely, whether to leave the whole survey to be completed during the following spring and summer, or to endeavour to follow it up this autumn. After mature consideration, I determined on adopting the first of these measures and giving up all hopes of prosecuting the survey at present." This determination was arrived at in full knowledge of the fact, that if he remained at Repulse Bay, he and his men ran the risk of starving, as they could obtain no promise of supplies from the natives, and all the provisions they had brought with them would not go far towards supporting them during the winter.

Having resolved upon his course, Rae proceeded at once to action. Two things were to be done immediately—a site to be selected for building a house for the winter, and a plan to be matured for obtaining a supply of food. A narrow valley on the north shore of Gibson's Cove was promptly selected as the site for the winter quarters, and preparations for building were at once commenced. This done, Rae, with his rifle on his shoulder, set out every day, ranging over the neighbourhood in search of suitable fishing stations on the inlets of the bay, and keeping an exceedingly wide-awake look-out for game. Brought up among the wild highlands of Scotland, the Doctor was a sportsman by instinct; and it is well that he thoroughly enjoyed the deer-stalking and duck-shooting excursions upon which his party were to be mainly dependent for food during the long Arctic night, when neither fish, fowl, nor four-footed animals are to be got. On the evening of the 12th August, the highest festival in the sportsman's calendar, Rae, when on his way to set a net in a lake near the shore, fell in with a covey of ptarmigan, and in an hour or two bagged eighteen brace of birds. "Knocking down these birds on *this day*," he says, "made me half fancy myself among the grouse in my own barren, native hills." On the 14th and 15th ninety salmon were obtained at the fishing stations.

On the 16th the men who had been sent back to the shores of Committee Bay to bring across the boat, and who had dragged it over nearly the whole way to Repulse Bay, and had then secured it till it should be wanted in the coming spring, returned into camp, and after a rest were set to work in preparation for the winter—building the house, setting nets, hunting deer, and gathering fuel. "On the 2d September," writes Rae, "our house was finished. Its internal dimensions were 20 feet long by 14 feet broad, height in front

7½ feet, sloping to 5½ at the back. We formed a very good roof by using the oars and masts of our boats as rafters, and covering them with oil-cloth and moose skin, the latter being fixed to the lower or inside of the rafters, whilst the former was placed on the outside to run off the rain. The door was made of parchment deer-skins stretched over a frame of wood. The walls were fully two feet thick, with three small openings, in which a like number of windows, each having two panes of glass, were placed. Our establishment was dignified with the name Fort Hope, and was situated in lat. 66° 32' 16" N., long. 86° 55' 51" W. . . . A sort of room was formed at one end by putting up a partition of oil-cloth. In this, besides its serving as my quarters, all our pemmican and some of the other stores were stowed away."

After the middle of September Dr Rae and his party began to settle down into regular habits for the winter. The routine of work varied little from day to day. The men got up in the morning before daylight, rolled up their bedding, made breakfast, and, having got their orders for the day, promptly set about their various employments, which were generally carried on out of doors. The breakfast meal usually consisted of boiled venison, and the water in which the meat had been boiled, with the addition of some deer's blood and a handful or two of flour, made a very excellent soup. The only other meal of the day—dinner, tea, and supper in one—consisted of the same fare as breakfast, and was taken at four or five o'clock. In the evening Rae would employ himself writing up his journal or making calculations, while his men practised reading, writing, and arithmetic under his supervision. Divine service was read on Sundays. The weather during September was stormy and unfavourable for observations of all kinds, and Rae was often obliged to exchange the sextant for the rifle, "a not unwelcome exchange to one addicted to field sports 'from his youth upwards.'" Deer were numerous at this season on the uplands around Fort Hope, and the Doctor's skill as a sportsman had its reward. The sporting-book for the month showed that 63 deer, 5 hares, 1 seal, 172 partridges, and 116 salmon and trout had been brought in for present necessities and as part provision for the winter.

On the 16th October the mercury in the thermometers sank for the first time to zero. But the increase of cold was not without its advantages. Hitherto the wet clay used in the building of the house had produced a most unpleasant feeling of dampness, and had injured many of the stores. Now, however, the clay was hard frozen, and the interior was consequently dry and comfortable. But such articles as had been damp previously now froze solid. Rae was surprised, on attempting to open some books that had been lying on a shelf, to find the leaves a solid mass. On the 23d, a party of natives arrived at Fort Hope, bringing with them five dozen reindeer tongues, a seal-skin full of oil, and some dogs, all of which Dr Rae gladly



purchased. In the earlier part of October numbers of deer frequented the neighbourhood, but at its close they had migrated southward, or gone away to wooded districts for shelter. The sporting-book showed that sixty-nine deer had been taken during the month, but only eighteen salmon and four trout.

During November few incidents of greater interest than the following hunting adventure took place: "On the 4th November," writes Dr Rae, "when out looking for deer, a little before daylight in the morning, I observed a band of animals coming over a rising ground at a quick pace, directly towards me. I at first supposed them to be deer, but on a nearer approach they proved to be wolves, seventeen in number. They continued to advance at full speed until within forty yards, when they formed a sort of half circle to leeward. Hoping to send a ball through one of them, I knelt down and took what I thought a sure aim at a large fellow that was nearest; unfortunately it was not yet broad daylight, and the rascals all kept end on to me, so that the ball merely cut off a line of hair and a piece of skin from his side. They apparently did not expect to meet with such a reception, for after looking at me a second or two they trotted off, no doubt as much disappointed at not making a breakfast of me as I was at missing my aim. Had they come to close quarters (which they sometimes do when hard pressed for food), I had a large and strong knife which would have proved a very efficient weapon."

Severe cold was felt during this month, and Dr Rae, finding that his stock of fuel was now very low, gave orders that fires were only to be lit for cooking purposes; but never for the purpose of drying clothes. The plan he adopted for drying his own wet and freezing garments was to take them under the blankets with him at night, and dry them by the heat of his body. The evaporation rising from the wet clothes froze on the blankets, which he always found sparkling with hoar-frost when he went to bed at night. But the rigorous climate of Repulse Bay exposed the expedition to frequent peril, as well as to constant inconvenience and hardship. On the morning of the 9th November a party of four men had been sent to North Pole Lake, eight miles from Fort Hope, to examine and re-set the fishing-nets. A blinding snow-storm came on in the afternoon, and the greatest anxiety was felt for the absent men. Guns were fired frequently to attract their attention, and at last, at eight P.M., the bewildered absentees came in staggering with fatigue, and looking like so many "walking pillars of snow." They had taken eight hours to accomplish the homeward journey of eight miles.

During the month of December there was no game to be seen, and Rae exercised his men chiefly in building snow-houses after the Eskimo fashion, and found that one or two of them soon became very good snow-masons.

The skill thus acquired proved of the greatest value a few months afterwards, when the party were out exploring the shores of Boothia and Melville Peninsula. As the month wore on, out-door amusements were all but abandoned owing to the severity of the weather; and wrestling and occasional games at football were the only means of obtaining exercise, keeping up the animal heat, and thus preventing the approach of the dreaded enemy, scurvy. "Christmas Day was passed very agreeably, but the weather was so stormy and cold that only a very short game at football could be played. Short as it was, however, it was sufficiently amusing, for our faces were every moment getting frost-bitten either in one place or another, so as to require the continual application of the hand; and the rubbing, running about, and kicking the ball all at the same time, produced a very ludicrous effect." The Christmas dinner of the explorers consisted of venison and a plum pudding, with a modest bumper of brandy-punch wherewith to drink a health to absent friends. This was tolerable fare for Repulse Bay; and the rigour of the weather at this season seems only to have enhanced the comforts of the feast. So intense was the cold in December that any water getting among the hair while the face was being washed instantly froze, making the locks rigid as the quills of the porcupine. North Pole River froze to the bottom on the 28th, after which water was only to be obtained with much inconvenience from a lake at the distance of half-a-mile. On New Year's Day, 1847, the temperature varied from 55° to 59° below the freezing point. Dr Rae, being a Scotsman, observed this day with the due and customary solemnities. The whole party had an excellent breakfast of fat venison steaks, after which they amused themselves for some hours playing football, "at which there was much fun, the snow being so hard and slippery that several pairs of heels might be seen in the air at the same time." Hare, venison, and reindeer tongue, with currant pudding, made a good dinner for the first day of the year; a small supply of brandy was served out, "and," says Rae, "on the whole, I do not believe that a more happy company could have been found in America, large as it is. 'Tis true that an agreeable companion to join me in a glass of punch, to drink a health to absent friends, to speak of bygone times and speculate on the future, might have made the evening pass more pleasantly; yet I was far from unhappy. To hear the merry joke, the hearty laugh, and lively song, among my men, was of itself a source of much pleasure."

The season of extreme cold was now at hand. On the 7th January the temperature registered was 79° below the freezing point. On the 9th there was a storm with thick snow-drift—the temperature 72° below freezing point—and, owing to the wind, bitterly cold. A house had been made for the dogs only a few days previously, else the animals must have been frozen to death. The force of the gale completely demolished Rae's two observa-

tories. Indoors the thermometer ranged from 29° to 40° below the freezing point, "which," says Rae, "would not have been unpleasant where there was a fire to warm the hands and feet, or even room to move about; but where there was neither the one nor the other, some few degrees more heat would have been preferable. As we could not go for water we were forced to thaw snow, and take only one meal each day. My waistcoat, after a week's wearing, became so stiff from the condensation and freezing of my breath upon it, that I had much trouble to get it buttoned." Stormy and intensely cold weather prevailed throughout the month. Ouligbuck, the Eskimo interpreter, went out to hunt on the 18th, and for a week nothing was seen of him. He had been caught in a snow-storm on the day he set out, and was unable to proceed. In this predicament he was obliged to build a snow hut, in which, with the storm howling around and over him, he passed the night comfortably. Next day he went on to the Eskimos at Christie Lake, abused them for not bringing a large quantity of oil, according to promise, to Fort Hope, and having stayed with them for a week, and energetically exhorted them to redeem their promises for the future, he returned on the 25th to Repulse Bay, much to the astonishment of Dr Rae, who had given him up for lost.

The Eskimos of Repulse Bay are a people of extraordinary endurance. Even in such wintry weather as has just been described, it is the custom of these Eskimos to strip off all their clothes before going to bed. It is necessary to explain, however, that the ever-burning lamp by which they cook their food, and which serves the double purpose of diffusing light and heat, preserves the temperature of their houses at a comparatively high register. Rae visited a family on the 1st February, and found their "comfortable house" so warm, that his waistcoat, which had been frozen quite stiff for some time previously, "actually thawed." Two days afterwards the Doctor came upon one of these Eskimos repairing the runners of his sledge. "The substance used was a mixture of moss chopped up fine, and snow soaked in water, lumps of which are firmly pressed on the sledge with the bare hand, and smoothed over so as to have an even surface. The process occupied the man nearly an hour, during the whole of which time he did not put his hands in his mits, nor did he appear to feel the cold much, although the temperature was 30° below zero." The ingenuity also of the Eskimos, as displayed especially in trapping wild animals, is remarkable. One method of destroying the wolf deserves notice. The usual method is to secure a loaded gun by means of sticks, so that its muzzle shall point straight at a bait which is laid down at the distance of fifteen or twenty yards. A line connected with the trigger of the gun is tied to the bait. When the wolf seizes the bait, the line is agitated, the gun is fired, and the wolf is usually so severely wounded as to be easily tracked and killed. Ouligbuck, Rae's Eskimo interpreter,

improved upon this plan. Early in February a wolf had been observed prowling about Fort Hope, and the interpreter resolved to get rid of him. He made use of the usual contrivance of the bait, line, and fixed gun. But instead of having a distance of fifteen yards between the bait and the gun, he placed the former at the distance of no more than a foot from the muzzle of the gun, which was carefully concealed from view by means of a small snow house which he raised above it, and which was pierced with a port-hole in a line with the muzzle and the bait, so that the shot could scarcely miss the head of the animal. When Ouligbuck went to his gun next morning, he saw the track of the wolf and followed him to the dog-kennel, in which he had comfortably taken up his quarters. He immediately took the brute by the tail, dragged him out much against his will, and despatched him with an ice chisel. The animal measured 5 feet 9 inches from the nose to the tip of the tail (the tail being 19 inches long), and his height to the shoulder was 2 feet 8 inches.

Dr Rae was much interested in the Eskimos who visited Fort Hope during February. One of the women wore a brass wheel fastened to her dress by way of ornament, which had evidently formed part of some instrument left in the neighbouring region by a former explorer. Akkeoulik, the man who had promised to bring the oil for sale to Dr Rae, but who had failed to keep his promise, appeared one day with a heavy iron hoop which he "had taken off a large stick," evidently a mast-head or bowsprit end of the abandoned "Fury" or "Victory." Several of these visitors had seen Ooblooria, Ikmallik, and other Eskimos mentioned by Sir John Ross; and they were able to tell Dr Rae that Tulluahua, whom Ross had furnished with a wooden leg, was dead. This free and intelligent intercourse with the natives doubtless suggested to Dr Rae the method by which, on a subsequent expedition, he ascertained the fate of Franklin and the crews of the "Erebus" and "Terror." His experience at Repulse Bay proved to him that the Eskimos could remember and describe events after the lapse of years, and that they illustrated their narratives of past occurrences by exhibiting well-preserved relics, which threw light on these occurrences—as the beads that had been given by Parry twenty-three years previously, and the brass wheel and iron hoop which had undoubtedly been the property of some predecessor in Arctic exploration. It was by the practical application of the experience gained on this expedition—by collecting the authenticated evidence of the natives, and by purchasing from them many articles known to have belonged to Franklin and his officers, that Rae was able to bring home the earliest intimation respecting the result of the great expedition of 1845.

As early as the middle of February there were tokens of reawakening life and of the return of spring in the vicinity of Repulse Bay. Unwilling to lose a day of the coming season, Rae gave his carpenter orders to com-

mence making two sledges for the spring journeys. The only wood available for this purpose was the timber lining of the boats ; for nothing more important grew on the desert slopes around Repulse Bay than a low and scanty kind of heather, and here and there some moss. Five deer were seen going north on the 21st February ; but they were still very wary and kept well out of gun-shot. Before the close of the month a brace of ptarmigan were shot, and several wolves had been destroyed at Ouligbuck's set gun. Two were wounded on the night of the 27th, one of which was caught before breakfast on the following day. "I went with Ouligbuck after the other," says Rae, "in the forenoon, and got sight of him about three miles from the house. Although his shoulder was fractured, he gave us a long race before we ran him down, but at last we saw that he had begun to eat snow, a sure sign that he was getting fagged. When I came up with him, so tired was he that I was obliged to drive him on with the butt of my gun in order to get him nearer home before knocking him on the head. At last we were unable to make him move on by any means we could employ. Ferocity and cowardice, often if not always, go together. How different was the behaviour of this savage brute from that of the usually timid deer under similar circumstances. The wolf crouched down and would not even look at us, pull him about and use him as we might ; whereas I never saw a deer that did not attempt to defend itself when brought to bay, however severely wounded it might be."

The first deer was shot on the 11th March, and the latter part of this month was spent in making preparations for the journey over the ice and snow to the shores of Akkoolee or Committee Bay. On the 3d April the thermometer rose above zero for the first time since the 12th December. After the beginning of April, the aurora, which had been frequently visible during the winter, was seldom seen. With respect to this singular phenomenon, Dr Rae states that though both Eskimos and Indians, as well as the Orkneymen and others employed in the service of the Hudson's Bay Company, assert that it produces an audible rustling noise, he himself had never heard any such sound.

On the 5th April Dr Rae, together with four of his men and an Eskimo ally named Ivitchuk, whom he had enlisted as guide, started on his second journey across Rae Isthmus. The luggage and provisions—consisting mainly of pemmican, reindeer tongues, and flour—were stowed on two sledges, each drawn by four dogs. The travellers set out at dawn, and were welcomed upon the frozen desert with a gale of snow-laden wind. At eight A.M., however, the sky cleared, the day became fine, and the sun "shone forth with great brightness, surrounded by a halo of the most brilliant colours, with four parhelia that rivalled the sun himself." At the close of a long day's work they stopped at Christie Lake, built their snow house, and got into their blankets

at eleven P.M. After a comfortable night, the party were again on the march at six A.M. On the morning of the 7th they reached the sea, and striking across the land towards Point Hargrave, found themselves in lat. $67^{\circ} 16'$, long. $74^{\circ} 30'$. The work of exploring and surveying the west shore of Committee Bay with the view of ascertaining whether any sea-way led westward to the Arctic Sea, had now begun in earnest. Cape Lady Pelly was passed on the 8th, and after advancing seven miles farther, a halt was made, a snow house built on the ice, and a comfortable night passed, although owing to scarcity of provisions the supper was somewhat scanty. Setting out on the morning of the 9th, Rae led the march in a north-west by west direction, passed a low promontory formed of shingle and mud, which he named Point Swanston, and after a journey of fourteen miles (geographical) erected the usual snow tabernacle and slept. At this camping-place half a bag of pemmican, some flour, shoes, etc., were placed "*en cache*" for the return journey. Still pushing along the west shore of Committee Bay, Rae reached Colville Bay on the 10th, after a journey of sixteen miles, and then gave orders to erect the usual snug quarters for the night. "Our usual mode of preparing lodgings for the night," says Rae, "was as follows: As soon as we had selected a spot for our snow house, our Eskimos, assisted by one or more of the men, commenced cutting out blocks of snow. When a sufficient number of these had been raised, the builder commenced his work, his assistants supplying him with the material. A good roomy dwelling was thus raised in an hour, if the snow was in a good state for building. Whilst our principal mason was thus occupied, another of the party was busy erecting a kitchen, which, although our cooking was none of the most delicate or extensive, was still a necessary addition to our establishment, had it been only to thaw snow. As soon as the snow hut was completed, our sledges were unloaded, and everything eatable (including parchment, skin, and moose-skin shoes, which had now become favourite articles with the dogs) taken inside. Our bed was next made by smoothing a snow-bench, and laying upon it one or two reindeer mats, and by the time the snow was thawed or the water boiled, as the case might be, we were all ready for supper. When we used alcohol for fuel (as we usually did in stormy weather) no kitchen was required." When fuel was scarce, the usual supper consisted of an ounce or two of pemmican and a drink of snow-water.

The long headland on the north side of Colville Bay, covered with granite blocks and the *débris* of limestone, was named Point Beaufort. Five miles farther north Point Sieveright was discovered and named, and from this point the line of the day's march was northward past Cape Barclay and into Keith Bay.

Fuel was now scarce, and of the two meals a-day, only one (breakfast) was taken hot. In order to save fuel to the utmost, Rae and his companions "filled two small kettles and a bladder with snow, and took them to bed

with us, for the purpose of procuring water to drink," a plan which was frequently adopted afterwards. At the encampment on Keith Bay, Rae's Eskimo, Ivitchuk, informed him that by crossing overland in a north-west direction he would reach the sea much sooner than by following round the coast, which here runs out north in a bold peninsula into Committee Bay. Acting on this information, Rae led the party inland on the morning of the 13th, struck across the country, which was miserably barren in every respect, in a north-north-west direction, and discovered and named Lake Ballenden. On the 14th the weather was stormy, dark, and intensely cold. The wilderness of snow presented no landmarks, and the guide was often puzzled to decide upon the true track. The temperature fell to -12° in the afternoon, and as a strong wind was blowing in the faces of the travellers, they suffered much from cold. "We trudged on manfully," writes Rae, "until five P.M. . . . At half-past five we commenced building our snow house. This was far from pleasant work, as the wind was piercingly cold, and the fine particles of snow-drift penetrated our clothes everywhere; we, however, enjoyed ourselves the more when we got under shelter and took our supper of the staple commodities, pemmican and water. . . . It blew a complete storm all night, but we were as snug and comfortable in our snow hive as if we had been lodged in the best house in England. At 5.30 the wind moderated to a gale, but the drift was still so thick that it was impossible to see any distance before us, particularly when looking to windward, and that, unfortunately, was the direction in which we had to go. The temperature was 21° below zero—a temperature which, as all Arctic travellers know, feels much colder when there is a breeze of wind, than one of -60° or -70° when the weather is calm. But there was the prospect of both food and fuel before us, for seals were said to abound in the bay and heather on the islands of Akkoolee-guwiak (afterwards named Pelly Bay). Such temptations were not to be resisted; so we muffled ourselves well up, and set out. It was one of the worst days I ever travelled in, and I could not take the bearings of our route more than once or twice." At length, after a march of twelve miles, Rae reached the frozen shores, and after a further walk of six miles across sea-ice, encamped on the sheltered side of the nearest of a group of islands. "All the party, even the Eskimos, had got severely frost-bitten in the face, but as it was not much more than skin deep, this gave us little concern. When our house was nearly built, a search was commenced among the snow for heather, and we were so fortunate as to procure enough in an hour and a half to cook us some pemmican and flour, in the form of a kind of soup or pottage. We were all very glad to get into our blankets as soon as possible. . . . Notwithstanding that I carried my watch next my skin, the cold stopped it."

After one day's rest, Rae set out with two of his party for the purpose

of reaching the most southerly of Sir John Ross's discoveries, and thus ascertaining whether the land was continuous all along the west shore of the Gulf of Boothia. He took with him only two of his party, and he instructed the others, who were left behind, to kill seals, buy provisions from any Eskimos that might visit them, and, above all, to be careful in using the remaining stock of provisions. With his two companions Rae started on the morning of the 17th April, his course being along the shore in a north-west direction. After walking seventeen miles, he reached and named Cape Berens (lat. $69^{\circ} 4'$, long. $90^{\circ} 35'$) at noon, and at three P.M. he reached the camping-ground for the night, between two small points, which he named the Twins (lat. $69^{\circ} 13'$, long. $90^{\circ} 55'$). Starting again at three A.M. on the 18th, the same course was followed along the shore, and Halkett Inlet was discovered and explored.

Rae was now certain that, if his observations and calculations for latitude and longitude were correct, he must be near Lord Mayor's Bay, the most southerly of Ross's discoveries, and that the main object of the expedition—so far as regarded this line of coast—was now about to be realised. He therefore decided on striking across the land in a north direction, in preference to following round the coast, as by so doing he would reach Lord Mayor's Bay more quickly. He and his men, having rested a little, accordingly commenced a toilsome march overland, in the course of which an excellent meridian observation was taken and the latitude ascertained to be $69^{\circ} 26'$. In a spot three miles north of this point, Rae ordered his men to prepare the snow-house for the night, while he himself went forward alone in the hope of reaching the coast. "A walk of twenty minutes," he writes, "brought me to an inlet not more than a quarter of a mile wide. This I traced to the westward for upwards of a league, when my course was again obstructed by land. There were some high rocks near at hand which I ascended, and from the summit I thought I could distinguish rough ice in the desired direction. With renewed hopes I slid down a declivity, plunging among snow, scrambling over rocks, and through rough ice, until I gained more level ground. I then directed my steps to some rising ground which I found to be close to the sea-shore. From the spot on which I now stood, as far as the eye could reach to the north-westward, lay a large extent of ice-covered sea, studded with innumerable islands. Lord Mayor's Bay was before me, and the islands were those named by Sir John Ross the 'Sons of the Clergy of the Church of Scotland.'" One interesting and important point in the geography of the Polar regions was thus settled. The joint discoveries of Sir John Ross and of Dr Rae had proved that there was no water-way leading west from Boothia Gulf to the open water of the Arctic Sea. Had Simpson, therefore, endeavoured to follow round the north shores of America, eastward from the Castor and Pollux River, with

the view of entering Boothia Gulf, and sailing out into the Atlantic by Fury and Hecla Strait, his purpose would have been frustrated by the discovery that Boothia Felix, instead of being an island separated by a navigable strait from the mainland of America, was really a part of that mainland—a great peninsula connected with the continent by an isthmus, just as Melville Peninsula is joined to the mainland by Rae Isthmus. Dr Rae reached his farthest point in this northward direction when he scrambled down to the south shore of Ross's Lord Mayor's Bay, and, from this point, "after offering, with a humble and grateful heart, thanks to Him who had thus brought our journey so far to a successful termination, I began," writes the discoverer, "to retrace my steps towards my companions." At a late hour, and after having traversed in all forty miles, over a rough road, Rae arrived at the commodious snow hut which his comrades had prepared. Next morning (19th April), having taken possession of his discoveries with the usual formalities, he set out upon his return journey to Fort Hope, on Repulse Bay. From Ross's Isthmus, at the south-east angle of Lord Mayor's Bay, the explorers travelled eastward, along Franklin Inlet, then turning south walked seven miles in that direction and encamped. Crossing Halkett Inlet on the morning of the 20th, they reached their former encampment between the "Twins," and slept in the snow house they had previously erected. At two A.M. they started again to reach the island on which they had left the remainder of the party, where they arrived on the evening of the 21st, and found all well. Here they were visited next morning by a number of Eskimos, who brought a quantity of seals' flesh, blood, and blubber. These Rae purchased, giving in exchange knives, files, beads, and needles. The island on which the party were staying, and which was found to rise 730 feet above sea-level, was named Helen's Island, the group to which it belonged was named Harrison Islands, and the inlet of Boothia Gulf, in which the islands are situated, was called Pelly Bay.

On his outward journey, Rae had been advised by Ivitchuk, his Eskimo guide, to strike inland across the country from Keith Bay to Pelly Bay, and thus save the time and labour which travelling round the coast would have rendered necessary. Now, however, that the explorer had accomplished the great purpose of his journey, he resolved to devote a day or two to the exploration and survey of the tract of coast-line which had been left unvisited. Accordingly, on the 24th, the whole party set out from Helen's Island in a north-east direction along the shores of what proved to be a bold peninsula stretching northward into the south part of Boothia Gulf. The sun was now warm during the day, and the travellers, exposed to the mid-day glare, began to suffer much from snow-blindness. To avoid this evil, Dr Rae stopped early, built his snow house on the coast, which was low and flat with limestone and granite boulders here and there, and resumed his march

again at midnight. Following the line of coast, he discovered and named Cape Chapman on the 26th ; and on the 29th, after making the circuit of the peninsula, he discovered and named the Clouston Points. Point Anderson and Cape Barclay were passed on the 30th, and on the morning of the 1st May the party encamped opposite Cape Beaufort. "The whole of the coast which we had traced during the last seven days, as far as Cape Barclay," writes Rae, "was low and flat, with neither rock nor hill to interrupt the sameness of the landscape. It—the promontory round which the party had been travelling—was named Simpson's Peninsula, after Sir George Simpson," who had projected and planned the expedition.

On the 1st May, Rae arrived at the spot where, on the 9th April, he had buried a quantity of provisions. Having dug up this hidden store, he was glad to have a change from seals' flesh and blood, on which the whole party had lived for eight days, to pemmican and flour. "It is true," writes Rae, "that during these eight days we had supped on a few dried salmon, which were so old and mouldy that the water in which they were boiled became quite green. Such, however, is the advantage of hard work and short commons, that we enjoyed that change of food as much as if it had been one of the greatest delicacies. Both the salmon and the water in which they were cooked were used to the last morsel and drop, although I firmly believe that a moderately well-fed dog would not have tasted either."

Arrived at the extreme south shores of Committee Bay, the explorers lost no time in crossing Rae Isthmus and making their way to Fort Hope on Repulse Bay, where they arrived on the 5th May. After all their perils and hardships, the travellers were able to report themselves "all well, but so black and scarred on the face from the combined effects of oil, smoke, and frost-bites," that their friends would not believe but that they had suffered from some explosion of gunpowder. "Thus successfully terminated a journey little short of 600 English miles, the longest, I believe," writes Rae, "ever made on foot along the Arctic coast."

But the purpose of the expedition was now no more than half accomplished. Rae had discovered, and had several times traversed, the isthmus that bears his name ; had reached the southern shores, previously unknown, of Boothia Gulf ; and had connected his survey of the west coasts of that gulf with those of Sir John Ross ; and had demonstrated that no navigable passage led westward from the gulf to the Arctic Sea south of lat. 69° 30' N., and that consequently no "North-West Passage" was to be looked for south of that parallel. The west shores of Boothia Gulf were thus brought within the sphere of geographical knowledge, but the east shores, south of Fury and Hecla Strait, had never yet been visited by civilised man. The survey of this east shore fell within the scope of Rae's instructions, and after a rest of only a few days at Fort Hope, this indefatigable explorer

organised another expedition with this object in view. He took with him four men and a supply of pemmican, tongues, flour, tea, sugar, and chocolate, with some alcohol and oil for fuel; and on the morning of the 13th May, he started to cross Rae Isthmus, and to reach the south shores of Committee Bay once more.

On the 16th the party reached the shore of Akkoolee, or Committee Bay, and Rae discovered and named Dease Peninsula and Cape Simpson, in honour of his immediate predecessors in Arctic travel. Around Cape Simpson the shores were barren—no vegetation was visible except patches of moss in the crevices of the rocks. But the region was not altogether inhospitable; for Corrigal, Rae's snow-house builder, shot two hares, and a sufficient quantity of moss or heather was gathered to boil the kettle. In this spot (lat. $67^{\circ} 22'$, long. $87^{\circ} 3'$) a quantity of pemmican, flour, etc., was buried for use on the return journey. After rounding Cape Simpson, Rae found the route very trying. The coast, which trended eastward, was broken up into deep inlets packed full of rough ice. In crossing, the travellers would sink at one moment waist-deep in snow, and at the next, knee-deep in salt water, and soon after would come upon blocks of ice, on which they were continually falling. "Sometimes we had to crawl out of a hole on all fours like some strange-looking quadrupeds, at other times falling backwards, we were so hampered by the weight of our loads that it was impossible to rise without throwing them off or being assisted by one of our companions. We therefore found it better to follow the shores of the inlets than to cross them, although by doing so we had double the distance to go over." On the 17th the travellers marched across Lefroy Bay, which was covered with rough ice, to Cape M'Tavish, three miles beyond which, in lat. $67^{\circ} 42'$, long. $86^{\circ} 30'$, the snow hut for the night—or, rather, for the day, for Rae and his companions were again travelling by night to avoid snow-blindness—was built. Opposite this cape, Rae discovered the large and flat island which he honoured with the name of Prince of Wales Island. Setting out at 8.30 P.M. on the 19th, the travellers were soon enveloped in a thick snow-drift whirled along by a gale which blew with great fury from the south-south-east. The gale was on the travellers' backs, which was so far fortunate; but the snow-laden wind had so darkened the air that it was impossible to see twenty paces in advance, or to deviate a single step from the ever-winding track of the coast-line. But though these five travellers were thus being drifted along an unknown shore they knew not whither, carrying with them no more food than would suffice for a few days, unable to see farther than a few yards ahead, there was no fainting or failing, and each man tramped on doggedly to accomplish, at all hazards, the object of the expedition. After travelling all night, during which they advanced only twelve miles, they halted and built their snow hut. No fuel could be procured here, and the snow-storm still continuing to rage, they

were obliged to remain under shelter till eight P.M. on the 21st. "During our detention," says Rae, "finding that our provisions would run short if the walking continued as difficult as it had been, we took only one not over-abundant meal during the twenty-four hours." Selkirk and Smith Bays were discovered and named on the morning of the 22d, and as no fuel could be found at the camping-ground, the travellers could only procure drinking water by taking a kettle or two of snow to bed with them. Starting again at eleven at night on the 22d, after a scanty and comfortless meal, Rae again led out his men. He had not advanced many miles beyond the headland, to which he gave the name of Point Corcoran, when he descried a number of deer feeding on the banks of a stream at no great distance. A vision of venison stews at once presented itself to his mind, and he sent forward Corrigan, who was a fair shot, in pursuit of the game. Corrigan had the luck to hit a fine buck, but though severely wounded, the animal was still able to run too fast to be overtaken; and the sportsman had already given up the chase, when Rae himself came up, and the two men recommenced the pursuit. "The deer having got a considerable way in advance, had lain down," writes Rae, "but rose up before we could get within good shooting distance, and was trotting off at a great pace when, by way of giving him a parting salute, I fired, and very luckily sent a ball through his head, which dropped him. . . . I immediately returned to the men, who had been busily employed collecting fuel, of which great quantities grew along the borders of the creek, and sent two of them to assist in skinning and cutting up the deer, whilst I and the other men continued to gather heather, as we now anticipated great doings in the kitchen! We placed the greater part of the venison *en cache*, but kept the head, blood, leg-bones, etc., for present use; and being determined to lose nothing, the stomach was partially cleaned by rubbing it with snow, and then cut up and boiled, which thus made a very pleasant soup, there being enough of the vegetable contents of the paunch to give it a fine green colour, although I must confess that, to my taste, this did not add much to the flavour. Having discussed this mess, a second kettle-full was prepared, composed of the blood, brains, and some scraps of meat, which completed our supper."

On the 24th, Rae and his party had advanced northward along the east shore of Boothia Gulf, as far as Cape M'Loughlin, lat. about 68° 47'. Bands of deer and flocks of partridges were seen at this halting-place, and here Rae resolved to leave two of his men to hunt and fish while he and the other two went on toward Fury and Hecla Strait. At ten P.M. on the 25th, the leader again started with Corrigan and Matheson, and still following up the coast-line, successively discovered and named Finlayson Bay, Point Richardson, and Garry Bay. All the way along this coast from Lefroy Bay to Garry Bay, and at a distance of about five miles from the shore, extends a

range of hills of from 500 to 800 feet high, which Rae named the Prince Albert Hills. The party encamped at seven A.M. on the 27th, in lat. $69^{\circ} 19' 39''$, long. about $85^{\circ} 4'$.

The provisions which the three men had brought with them were now nearly at an end, and Rae saw that he could advance only half a night's journey farther to the northward, and return the following morning to his present quarters. Accordingly, leaving one of the men behind, the leader set out with the other at nine P.M. on the 27th. Snow fell heavily, and progress was slow. Baker Bay was discovered and named, and the march was continued for several hours afterwards. At four A.M. the sky cleared, and Rae now found that he had reached the south shore of a considerable bay. He also obtained a distinct view of the coast-line to the distance of twelve miles beyond the bay. Of this farthest limit of his explorations Rae writes: "To the most distant visible point (lat. $69^{\circ} 42' N.$, long. $85^{\circ} 8' W.$) I gave the name of Cape Ellice. . . . The bay to the northward and the headland on which we stood were respectively named after the distinguished navigators, Sir Edward Parry and Captain Crozier. Finding it hopeless to attempt reaching the strait of the Fury and Hecla, from which Cape Ellice could not be more than ten miles distant, we took possession of our discoveries with the usual formalities, and retraced our steps, arriving at our encampment of the previous day at half-past eight A.M."

On the night of the 28th the march homeward was commenced. On the morning of the 30th the three men had joined the other two who had been left behind to hunt and fish, but who had been equally unsuccessful in both pursuits. Rae had expected a good meal on his arrival, but found that the men he had left to provide a store of food were themselves so ill-supplied that they were on the point of boiling a piece of parchment-skin for supper. Under certain circumstances scarcity of food may be borne for a time with equanimity; but a man's lot is somewhat hard when he has fatiguing work to do, and at the same time nothing to eat. "I have had considerable practice in walking," writes Rae, "and have often accomplished between forty and fifty, and, on one occasion, sixty-five miles in a day on snow shoes, with a day's provisions, blanket, axe, etc., on my back; but our journey hitherto had been the most fatiguing I had ever experienced. The severe exercise, with a limited allowance of food, had much reduced the party, yet we were all in excellent health; and although we lost flesh, we kept up our spirits, and marched merrily on, tightening our belts—mine came in six inches—and feasting our imaginations on full allowance when we should arrive at Fort Hope."

It is needless to state that under such conditions the journey homeward was a rapid one. The travellers were lucky enough to find that the small stores of provisions which they had concealed at different stages of their outward journey were inviolate on their return, and as a few ptarmigan fell to

Rae's rifle, there was generally something good in the kettle when the day's journey was over. On the 6th June the party arrived at Cape Simpson, and were delighted to find the *cache* of provisions which they had made there all safe as it had been left. All hands immediately set to work clearing away the stones beneath which the provisions had been buried, not so much for the purpose of getting at something to eat as to reach a package of tobacco which had been there placed among the other stores. The men were inveterate smokers, but all their pipes had been "out" for want of tobacco for several days. Meantime a fine hare had been shot, and as soon as sufficient fuel had been gathered, a feast was prepared such as the half-famished men had not enjoyed for many days. On this day such was the power of the summer sun that the mercury rose in the thermometer to 82°. At nine P.M. on the 6th, Rae and his men started to recross the isthmus to Repulse Bay, where they arrived at eight on the morning of the 9th all well, and in good spirits, but exceedingly thin.

Thus terminated an important and a completely successful expedition. Dr Rae had been commissioned to explore the unknown shores around the southern arm of Boothia Gulf, as far north on the east and west sides as the most southern points visited by the Rosses, and this he accomplished in the most creditable and satisfactory manner. His discoveries proved that there was no outlet from the south of Boothia Gulf to the Arctic Sea, and he thus so far practically circumscribed the area in which a "North-West Passage" might be sought for with hope of success.

From the 9th June, the date of the return to Fort Hope, to the 12th August, the expedition was detained by ice on the shores of Repulse Bay. On the latter date, however, the ice having broken up, Rae set sail from the bay, after distributing presents of axes, files, knives, etc., among his Eskimo allies, and arrived safely at York Factory on the 6th September.

PART VIII.

THE FRANKLIN SEARCH.

CHAPTER I.

THE SEARCH FOR FRANKLIN RESOLVED UPON—VOYAGES OF THE “HERALD”
AND “PLOVER”—AWACHTA BAY—BOAT EXPEDITION FITTED OUT—HERALD
ISLAND DISCOVERED—ICE-CLIFFS OF ESCHSCHOLTZ BAY.

A YEAR and a half had elapsed since the departure of Franklin in the “Erebus” and “Terror” (May 1845), when a feeling of uneasiness as to the fate of the expedition began to manifest itself throughout the country. Sir John Ross was the first to give expression to this feeling in a number of letters written to the Admiralty and to the Royal and Geographical Societies, in which he stated that the discovery ships were most probably frozen up off the western shores of Melville Island, and their return rendered impossible by an ever-thickening rampart of ice on the east. The publication of these letters gave rise to a discussion which thoroughly aroused the interest of the public and stimulated the Government to immediate action. Sir John Franklin, the most illustrious explorer of his day, together with one hundred and thirty-seven of the most promising officers and best men of the navy, had now been detained among the ice for two winters in the prosecution of a great national aim; and it was now considered high time that the nation should take some measures for the purpose of ascertaining what fortune, good or bad, had befallen the adventurers. The Lords of the Admiralty pointed to the voyages of Parry and Ross, both of whom had been ice-bound in the Polar Seas for several successive winters, and to Franklin’s letter to themselves, in which the gallant old seaman, writing from Disco, says, “The ships are now complete with supplies *for three years* ;” and they stated that the second winter of Sir John’s absence “was too early a period to give rise to well-founded apprehensions for his safety.” Nevertheless, a certain degree of anxiety seems to have been felt in official quarters, and, besides, some concession was due to the temper of the country. Accordingly, Government

invited all officers who had sailed in Arctic seas to send in written statements of opinion respecting the probable situation of the absent expedition, and the best means of sending assistance. From the reports returned to Government, the general impression of the officers consulted appeared to be, that they "did not apprehend that the expedition had foundered in Baffin's Bay, as some naval men of high rank, but not of Arctic experience, had suggested; that it had not as yet passed Behring Strait; and that until two winters without tidings had elapsed, serious fears for its safety need not be felt; but that immediate preparations for its relief ought to be made, to be carried out in the event of the summer closing without intelligence arriving." Should no intelligence arrive during the summer of 1847, it was the opinion of practical navigators that the directions in which search expeditions should be sent out should be determined by the "instructions" which Franklin had received from the Admiralty. These instructions were to the effect, that Franklin was to proceed to about lat. 74° 15' N., long. 98° W., in the vicinity of Cape Walker, and that thence he was to push southward and westward in a course as direct to Behring Strait as the position of the ice and the existence of previously unknown land would permit. Going on the supposition that the leader of the "missing expedition" had endeavoured, and was even now endeavouring, faithfully to carry out these instructions, the Admiralty naturally determined to send out three search expeditions—one to sail to Behring Strait to *meet* the "Erebus" and "Terror;" a second, to Lancaster Sound to *follow* them on their supposed track, and a third to proceed overland to the shores of the Polar Sea to succour them in the event of their having been compelled to abandon their ships and make for the north coast of the continent.

Of the three projected relief expeditions, the first to enter upon the actual work of searching for the missing vessels was that sent to Behring Strait. It consisted of the "Herald" (Captain Kellett), a surveying ship of 500 tons, and carrying 110 officers and men; and the "Plover" (Commander Moore), a store ship of 213 tons, and carrying 41 men. The "Herald" had been commissioned in 1845 to survey the coasts of Central America, the Gulf of California, and Vancouver's Island; and its captain and officers were not a little surprised when, in April 1848, having reached Panama after surveying the coasts of Peru, they learned that they were to enter upon a new career, and change the pleasant waters of the Pacific for the Polar seas. Captain Kellett's instructions were to proceed north through Behring Strait and to "co-operate with H.M. brig 'Plover' in searching the north-western extremity of America and the Arctic Sea for traces of the missing voyagers." Officers and men, though debilitated by a three years' cruise in an unhealthy climate, and now ordered to pass suddenly from enervating heat to the rigours of the remote north, received with enthusiasm the intelligence that

their services were now to be required in the sacred cause of conveying the means of succour to the region in which the "Erebus" and "Terror," with their colony of explorers, had been for three years lost.

The "Herald" weighed anchor in the Bay of Panama, on the 9th May 1848, and was towed by a steamer westward, a distance of 660 miles, in order to fall in with the trade-wind, and thus avoid the variables and calms. On the 11th July she sighted the Hawaiian group of islands, and on the 7th August anchored in the harbour of Petropaulovski, Kamtchatka. After a long cruise along tropical shores, covered with abundant and glowing vegetation, the men of the "Herald" expected that Kamtchatka would show them nothing but nakedness and sterility, and were surprised at the luxuriance of its herbage and the brilliant green of its snow-capped volcanoes. Setting sail again on the 14th August, Captain Kellett steered for Norton Sound, North-West America, and reached the Russian trading-port of Michaelovski, where an Eskimo interpreter (whom the sailors of the "Herald" afterwards nick-named *Bosky*) was taken on board. On the 14th September Captain Kellett dropped anchor off Chamisso Island in Kotzebue Sound, where, according to arrangement, he should have joined the "Plover." Here the "Herald" lay inactive for fifteen days waiting the arrival of the brig. There was nothing to do, and as time hung heavy on the officers' hands, theatricals were resorted to, and the ingenious J. G. Whiffin, clerk in the "Herald," and the manager of the *extempore* theatre, brought out "The Mock Doctor; or the Dumb Lady Cured—a comedy freely translated from the French of Molière by Fielding," in which the part of *Sir Jasper* was filled by Mr Bedford Pim, now (1876) M.P. for Gravesend, and proprietor of the *Navy*, a valuable service paper, while the part of *Dr Hellibore*, the mock doctor, was appropriately assigned to the "Herald's" assistant-surgeon, Mr W. J. Billings. Meantime the open season was rapidly drawing to a close, and as the "Plover" had not yet arrived at the place of rendezvous, Kellett, on the 29th September, sailed out of the sound to resume his survey of the Mexican coast, Panama, and the Sandwich Islands.

On the 19th May 1849, having previously made preparations for a second cruise in Arctic waters, Captain Kellett set sail from Honolulu. He sighted Kamtchatka on the 22d June, and on the following day anchored again off Petropaulovski in Awachta Bay. "Nothing more picturesque," writes Berthold Seemann, the naturalist attached to the "Herald," "can be imagined than the scenery of Awachta Bay when lit up by the full moon. The cliffs standing out in bold relief, the conical volcanoes towering to the skies, and throwing long shadows into the valleys, the large expanse of water, almost resembling an inland lake, all combined to impress the mind with lofty feelings: still this sight, however imposing, dwindled into insignificance before that which displayed itself when the sun rose behind the snow-capped moun-

tains; the whole elevated land seemed to be a mass of fire, and the spectator remained as it were spell-bound, until the full appearance of daylight dispersed the illusion, and once more restored him to the sober thoughts of life."

Nothing had been heard or seen of the "Plover" at Petropaulovski; but Captain Kellett was not a little surprised to see a Royal Thames Yacht Club schooner, named the "Nancy Dawson," riding at anchor in this out of the way harbour. The "Nancy Dawson" was owned and commanded by Mr. Robert Sheddon, formerly a mate in the navy, who had sailed into the seas of the far north for the purpose of joining the Behring Strait expedition, as a volunteer in the Franklin search. Sheddon's yacht was well stocked with provisions and instruments; but her crew, consisting chiefly of Americans picked up at Hong-Kong, from which the vessel had last sailed, were a disorganised and altogether unsatisfactory set.

On the 27th June Kellett sailed out of Awachta Bay accompanied by the "Nancy Dawson," and steering through Behring Strait, entered Kotzebue Sound on the 15th July, and had the satisfaction of seeing the "Plover" lying at anchor off Chamisso Island. In this vessel Commander Moore had sailed from the Thames, on the 1st January 1848, to join the "Herald." The brig proved, however, a very slow sailer, and Moore was unable to reach the Sandwich Islands before the close of August. It was now too late in the season to make for Behring Strait; accordingly he sailed for the harbour of Anadyr, on the east coast of Eastern Siberia, and wintered there. Leaving his winter station on the 30th June 1849, Moore steered the "Plover" for Behring Strait, entered the Arctic Ocean, and, on the 14th July—the day before the arrival of the "Herald"—anchored off Chamisso Island, in Kotzebue Sound. Moore's instructions were to search the north-west and north coasts of America eastward to the mouth of the Mackenzie River, at which point the examination of the coast eastward was to be taken up by the overland expedition, under Richardson and Rae. Not a moment was lost in carrying these instructions into effect; for, on the 15th July, the day after his arrival in Kotzebue Sound, he had sent away two boats on the voyage round the coast to Mackenzie River. The opportune arrival of the "Herald" on the same day, however, caused Commander Moore to recall his boats. A general consultation was now held. "The new arrival," writes Berthold Seemann, author of the "Narrative of the Voyage of the 'Herald,' 1845-51," "occasioned an entire change in the plan adopted. It was thought more prudent, considering the danger to which boats so heavily laden must be exposed, to despatch them from the highest possible (point) north which the ships, without risking their safety, could attain. We commenced immediately," continues Seemann, "to coal and provision the 'Plover'—removing officers, discharging objectionable men, and filling up their vacancies from

our own complement. While this was going on, Captain Kellett went with Commander Moore, and his acting ice-master, to examine the different bays on the east side of Chloris Peninsula, for a wintering station for the 'Plover.'" In the course of the search the party landed on Chamisso Island, and the boat's crew were set to work digging for a cask of flour that had been buried here by Captain Beechey twenty-three years before. The exact position of the *cache* was indicated by directions cut in the rocks on the shore, and in a short time the cask was found and disinterred. The sand around it was frozen so hard that at every blow of the pick-axe it emitted sparks. "The cask itself," writes Seemann, "was perfectly sound, and the hoops good. Out of the 336 lbs. of flour which it contained, 175 lbs. were as sweet and well tasted as any we had on board; indeed, afterwards Captain Kellet gave a dinner-party, at which all the pies and puddings were made of this flour."

On the 18th July the vessels left their anchorage and stood away to the north-west round the coast, the "Plover" leading under all sail, and the "Herald," accompanied by the "Nancy Dawson," following. On the 20th they passed Cape Lisburne, and on the 25th, they entered off the entrance of Wainwright Inlet, from which Captain Kellett had arranged the boat expedition, for the examination of the Arctic shores eastward to the Mackenzie, should be cast off. All hands were now set to work hoisting out, equipping, and provisioning the boats. By midnight all preparations had been made, and the boats, under the command of Lieutenant (now Rear-Admiral) Pullen, shoved off under three hearty cheers from the ships, to which a cordial response was given. "This little expedition," writes Seemann, "consisted of twenty-five persons and four boats, as follows: Lieutenant Pullen, commanding the 'Herald's' thirty-foot pinnace, fitted on board with the greatest care, thoroughly decked, schooner-rigged, and called the 'Owen,' furnished with pumps, spare rudder, and a strengthening piece of two-inch plank above her water-line; two twenty-seven feet whale-boats, covered in abaft as far as the backboard, but without either boxes or cases, the provisions being stowed, the bread in painted bags, and the preserved meats between tarpaulins—the men's clothes were in haversacks, capable of removal in a moment; the 'Plover's' pinnace, a half-decked boat, with cases for her provisions, etc., so placed as to resist pressure from the ice. There were in the boats seventy days' preserved meats for the whole party, all other articles, except bread, being, like the meat, soldered up in tins. In addition to these, the 'Owen' had on board eight men's allowance of the regular ship's provisions. After she was stowed with this proportion, every corner that would hold a case of preserved meat was filled. Each of the two larger carried five cases of pemmican for the special use of Sir John Franklin's party." The boats went away by the light of the midnight sun on the 25th, and the ships weighed and followed

them for a few hours. Early on the morning of the 26th a dense fog came down upon the sea, and when the weather cleared at noon, the boats and the yacht ("Nancy Dawson") were out of sight. Leaving Lieutenant Pullen to push on along the Arctic coasts, we have now briefly to sketch the operations of the "Herald" and "Plover" until the first Behring Strait expedition was recalled.

At noon on the 26th, these vessels steered due north, and at one P.M. sighted the heavily-packed ice of the Arctic Sea in lat. $71^{\circ} 5'$, and extending from north-west by west round to north-east. On this and the following day the ships continued to steer along the pack, and on the 30th July sailed for, and commenced the survey of, Wainwright Inlet. Early in August the vessels separated. At noon on the 15th the "Herald" was in lat. $71^{\circ} 12'$, long. $170^{\circ} 10'$; and on the morning of the 17th, when making for the north-west extreme of the pack, the exciting cry of "Land ho!" was shouted from the mast-head. A group of islands was reported on the port beam, and beyond this group an extensive and high land was soon afterwards descried by Captain Kellett from the deck. "I had been watching it," says the captain, "for some time, and anxiously awaited a report from some one else. There was a fine clear atmosphere (such a one as can only be seen in this climate), except in the direction of this extended land, where the clouds rolled in numerous immense masses, occasionally leaving the lofty peaks uncapped, where could be distinctly seen columns, pillars, and very broken summits, which are characteristic of the higher headlands in this sea—East Cape and Cape Lisburne, for example. With the exception of the north-east and south-west extremes, none of the lower land could be discerned, unless, indeed, what I took at first for a small group of islands within the pack edge was a point of this Great Land. This island or point was distant twenty-five miles from the ship's track; higher parts of the land seen not less, I consider, than sixty miles. When we hove to off the first land observed, the northern extreme of the Great Land showed out to the eastward for a moment, and so clear as to cause some who had doubts before to cry out, 'There, sir, is the land, quite plain.'"

No sooner was the unknown land discovered than Captain Kellett altered his course and sailed twenty-five miles directly towards it. As he approached he discovered that the pack rested on the shores of the island, and extended away to east-south-east out of sight. Two boats were then lowered for the purpose of visiting and taking possession of the newly-discovered land—Captain Kellett, Mr Goodridge, and Mr Pakenham going in one, and Mr Maguire, Mr Collinson, and Mr Seemann in the other. "We reached the island," says Seemann, "and found running on it a very heavy sea. The first lieutenant (Mr Rochfort Maguire) landed, having backed his boat in until he got foothold—without swimming—and then jumped overboard. The

captain followed his example, hoisted the jack, and took possession of the island with the usual ceremonies, in the name of Her Most Gracious Majesty Queen Victoria. . . . There can be no doubt," continues Seemann, "that we had found an unknown country, and that the high peaks we observed were a continuation of the range of mountains seen by the natives off Cape Jakan, as mentioned by Wrangel in his 'Polar Voyages.' That land, according to a belief current in Siberia, quoted by Cochrane, *is inhabited by a people of whom we are at present entirely ignorant.*"

The island thus taken possession of was named "Herald Island." It is four and a half miles long and two and a half broad, is triangular in shape, and is situated in lat. $71^{\circ} 17' 45''$ N., long. $175^{\circ} 24'$ W. It may be described as one huge granite cliff, rising to the height of 900 feet, and inaccessible, except at a few spots, from the steep, almost perpendicular frontage of the rocks. It is the haunt of innumerable flocks of black and white divers, but was unmarked by any traces of human inhabitants. The "Great Land" seen beyond this isle was named Plover Island. "Its position," says Mr Augustus Petermann, "very nearly corresponds with that described by Admiral Wrangel off Cape Jakan, and is no doubt connected with it, and probably the same as that said to have been reached by Andreyew in 1762, called Tikigen, and inhabited by a race named Kraihai."

On the 2d September the "Herald," "Plover," "Nancy Dawson," and two of the boats that had been despatched to Mackenzie River but had been sent back, were all together at anchor in Kotzebue Sound. Here Commander Moore had resolved to remain for the winter, and a large party, including the carpenters of the "Herald," were told off to erect a winter house for the officers and crew of the "Plover." Meantime it was considered advisable to visit a number of chiefs who were known to live at a considerable village some distance up Buckland River, which enters the sound from the east, and as it was possible that these might make themselves troublesome to the wintering party, Captain Kellett determined to visit them and secure their respect and friendship. "Accordingly, on the 9th September," says Seemann, "we started with the 'Owen'—the 'Plover's' decked boat—the 'Herald's' cutter, and two gigs, their crews and several officers. The first night we bivouacked at Elephant Point, and the whole crew roamed over the ice-cliffs for fossils but could not find many. The second night we stayed, at an Eskimo encampment of twenty-two tents and about a hundred and fifty people. We pitched our tents close to those of the natives, had our coppers, pots, kettles, axes, saws, etc., on shore, but although at times we had a third of their numbers about us, not an article was lost; and they were not troublesome when we told them we wished them to go away. They brought us wood and water, gave us fish and venison, and offered us whale blubber and seal flesh. The natives were highly amused, and joined our

crew in the sports of leaping and running. The shooting parties were always accompanied by some of them, and they were greatly surprised to see some of the young officers killing the birds right and left. The moment our boats started, until we got far up the river, we were preceded by their little kayacks, sounding with their paddles, to the channel. We had pilots in each of the large boats, who remained constantly with us, and who showed great concern when they unavoidably got us on shore." Altogether the conduct of the natives was friendly and respectful—very different from their behaviour towards Captain Beechey in his voyage in 1825-28. Their tractable and conciliatory demeanour was probably due to the circumstance that the white men had an interpreter with them who could explain the friendly purposes of the visitors ; but it was doubtless also due in part to the increased intercourse between the Eskimos and the Russian settlers and fur traders at Michaelovski, on the south shore of Norton Sound. Many of the natives wore shirts, handkerchiefs of gaudy colours, and cotton cloths, with printed figures of the walrus, reindeer, and other Arctic animals, which they had obtained from the Russians in exchange for peltry. When an Eskimo takes to wearing shirts there is some hope of him. Long before St Paul's shall have crumbled into ruins, there will not be a single New Zealander extant to sketch the interesting relic. But Macaulay may rest in peace—the Eskimos are excellent draughtsmen ; and since within the last few years they have advanced so far on the road to civilisation as to tolerate shirts, there is room for the hope that when London shall have become a memory, though no Maori shall be alive to sketch its site, the last respectful duty to the fallen city may be paid by some R.A. from the Arctic shores.

After the return of Kellett and his party, permission was given to a number of officers to visit the extraordinary ice-cliffs of Eschscholtz Bay. This visit is described with much spirit and humour by Mr Edwin Jago, then clerk of the "Herald," and now (1876), or recently, paymaster of the troopship "Crocodile." The party shoved off early, in two boats, and were carried rapidly by a favourable and strong wind to Eschscholtz Point. As they neared the bold shore "the sun shone out, and the wind gradually dying away, the weather became so beautifully serene that one was filled with amazement when reflecting that the black-looking cliffs were composed of huge and solid masses of ice." Among these ice-cliffs a sufficient number of teeth, fossil bones, etc., were found to fill a large bag. These remains were carefully examined and described by Dr Richardson in his "Zoology of the Voyage of H.M.S. 'Herald.'" After stating that the summer thaw never penetrates the soil deeper than about two feet below the surface in the lands within the Arctic circle, and that animal substance solidly frozen in the earth may be preserved for any conceivable length of time, Dr Richardson, in an admirable sketch of the ice-cliffs of Eschscholtz Bay and the

fossil remains found in them, proceeds to say that "where the permanently frozen subsoil exists it is a perfect ice-cellar, and preserves from destruction the bodies of animals completely enclosed in it. By its intervention entire carcasses of the extinct mammoth and tichorhine rhinoceros have been handed down in Arctic Siberia from the drift period to our times, and, being exposed by landslips, have revealed most interesting glimpses of the fauna of that remote epoch. Conjecture fails in assigning a chronological date to the time when the drift and boulders were spread extensively over the northern hemisphere; . . . and we merely judge from the absence of works of art and of human bones, that the drift era must have been antecedent to the appearance of man upon earth, or at least to his multiplication within the geographical limits of the drift. Whatever may be our speculations concerning the mode in which the carcasses in question were enclosed in frozen gravel or mud, their preservation to present times, in a fresh condition, indicates that the climate was a rigorous one at the epoch of their entombment, and has continued so ever since. . . . The 'St Petersburg Transactions' and other works contain accounts of the circumstances attending the discovery of the entire carcasses of a rhinoceros and of two mammoths in Arctic Siberia, and one cannot avoid regretting that they were beyond the reach of competent naturalists, who might, by examining the contents of the stomach, the feet, external coverings, and other important parts, have revealed to us much of the habits of these ancient animals, and of the nature of the country in which they lived. . . . In Arctic America such remains have been discovered in its north-western corner alone, and as yet, bones, horns, and hair only have been obtained, without any fresh muscular fibre; but all the collectors describe the soil from which they were dug as exhaling a strong and disagreeable odour of decomposing animal matter, resembling that of a well-filled cemetery. In August 1816, Kotzebue, Chamisso, and Eschscholtz discovered, in the bay which now bears the name of the last-mentioned naturalist, some remarkable cliffs, situated a short way southward of the Arctic circle, and abounding in the bones of mammoths, horses, oxen, and deer. The cliffs were described by these discoverers as pure icebergs, one hundred feet high, and covered with soil, on which the ordinary Arctic vegetation flourished. These novel circumstances strongly excited the attention of the scientific world; and when Captain Beechey and his accomplished surgeon, Collie, ten years later, visited the same place, their best efforts were made to ascertain the true nature of the phenomenon. Dr Buckland drew up an account of the fossil remains then procured, with illustrative plates, and Captain Beechey published a plan of the locality." Captain Beechey, however, considers that the ice of these cliffs is merely a facing, and that the cliffs consisted mainly of frozen mud; but "after an interval of twenty-four years," continues Dr Richardson, "the recent voyage

of the 'Herald' to this interesting spot, has given a third opportunity of collecting fossil bones and examining the structure of these famed cliffs. Captain Kellett, Berthold Seemann, Esq., and John Goodridge, Esq., with the works of Kotzebue and Beechey in their hands, and an earnest desire to ascertain which of the conflicting opinions enunciated by these officers was the most consistent with the facts, came to the conclusion, after a rigid investigation of the cliffs, that Kotzebue was correct in considering them to be icebergs. . . . The ice-cliffs of Eschschoitz Bay may have had an origin similar to that of the Greenland icebergs, and have been coated with soil by a single or by successive operations. I find it difficult, however, to account for the introduction of the fossil remains in such quantity, and can offer to the reader no conjecture on that point that is satisfactory to myself. The excellent state of preservation of many of the bones, the recent decay of animal matter, shown by the existing odour, quantities of hair found in contact with a mammoth's skull, the occurrence of the outer sheaths of bison horns, and the finding of vertebræ of bovine animals lying in their proper order of sequence, render it probable that entire carcasses were there deposited, and that congelation followed close upon their entombment. A gradual improvement of climate in modern times would appear to be necessary to account for the decay of the cliffs now in progress, and the exposure of the bones. The shallowness of the water in Eschschoitz Bay, its narrowness and its shelter from seaward pressure by Chloris Peninsula and Chamisso Island, preclude the notion of icebergs, coming with their cargoes from a distance, having been forced up on the beach at that place. Neither is it more likely that the bones and diluvial matters were deposited in the estuary of Buckland's River, and subsequently liberated by one of the earth waves by which geologists solve many of their difficulties, for ice could not subsist long as a flooring to warmer water. In short, further observations are still needed to form the foundations of a plausible theory."

By the 26th of September the "Herald" had supplied all the wants of the "Plover," and on the 29th she sailed out of Kotzebue Sound, having in company the "Nancy Dawson," the owner and commander of which, Mr R. Sheddon, was now in ill health. On the 2d October the "Herald" passed through Behring Strait, and anchored at the port of Mazatlan, in Mexico, on the 14th November, where Mr Sheddon's yacht had arrived on the previous day. Mr Sheddon died three days after his arrival in harbour, and was buried in the Protestant burial-ground at Mazatlan. "The 'Nancy Dawson,'" says Seemann, "will ever be remembered in the history of navigation as the first yacht that performed a voyage round the world, and penetrated to the eastward of Point Barrow; while the generous impulse which induced Mr Sheddon to search for his missing countrymen, will always be appreciated by every feeling heart, and held up as an example to future generations."

CHAPTER II.

THE "PLOVER" IN WINTER QUARTERS, 1849-50.

To Mr Bedford Pim, one of the most versatile gentlemen engaged in the Franklin search—seaman, author, journalist, barrister, and M.P.—we are indebted for a sketch of the wintering of the "Plover." A midshipman in the "Herald," under Kellett, he was transferred to the "Plover," in order to fill up one of the two vacancies caused by two officers having gone away in charge of the boats to Mackenzie River. At first Mr Pim did not fully appreciate the amenities of his new situation; and he remembered with some regret the cheerful days in the old "Herald." "The departure of the 'Herald,'" he writes, in his admirably spirited journal, "the prospect of a long winter, the loneliness and melancholy aspect of the adjacent country, all tended to increase a feeling which the sudden loss of companions and friends is always calculated to produce. The natives also, to whose passion for barter we had been indebted for large quantities of fish, venison, and berries, paid us a final visit in their baidars on the 9th of October; and we seemed now to be entirely excluded from all human intercourse. However, by degrees we became more and more accustomed to our solitude, and tried, by mental and bodily exercise, to make the time pass as agreeably as possible." On the 17th October the temperature of the sea being 28° Fahr., the water thickened, after which it froze so rapidly that a number of the "Plover's" men dragged a heavy boat some distance over its surface. On the 24th, the thermometer fell for the first time to zero, and the reign of winter was completely established in Kotzebue Sound. It was now, of course, necessary to house-in the ship; and Mr Pim tells us how this was done. "A wooden frame, covered with canvas and tilt-cloth, served as a roof; several windows admitted the still remaining portion of daylight; three fire-places and a Sylvester's stove, lit occasionally, diffused an agreeable temperature; in fine, as far as the internal arrangements were concerned, the dockyard authorities had so well provided for every want, that a considerable degree of comfort was experienced. Those who enjoy all the

luxuries of civilised society may perhaps smile at the assertion; yet in a region where even an Eskimo hut has charms, and where nature shows herself only in the most chilly and sombre aspect, the accommodation which the vessel afforded was fully appreciated. It was fortunate that the housing-in was so soon completed, as in October we had a constant succession of bad weather, accompanied by a low temperature. The ice, towards the end of the month, was three feet thick; it had, however, before this time, owing to the meeting of the tides, been thrown up occasionally to a height of twenty feet, forming hummocks, pinnacles, and walls, and presenting a most picturesque spectacle, which forcibly impressed an imaginative mind with the idea of extensive ruins. The *aurora borealis* also, in proportion as the temperature decreased, became more frequent, and displayed a greater degree of brilliancy."

The latitude of the winter station of the "Plover" (about 66° 30' N.) does not place it within the Arctic circle, and the cold in winter is less intense than in other much-frequented regions of the north. Besides, Kotzebue Sound, protected to some extent from the north and east winds, is open only to the west, and the climate is consequently milder than might be expected. The officers of the "Plover" had made up their minds that when the cold increased all living creatures would vanish from the Sound. This, however, was not the case. Deer appeared in large numbers, and offered so great a temptation for hunting that several parties started for that purpose, but inexperience and haste prevented their killing a single head, and, moreover, so alarmed the herds that they never afterwards approached the immediate neighbourhood. Ptarmigans and hares were abundant, and the sportsmen frequently added these luxuries to the table. Wolves and foxes occasionally enlivened the scene; and the former, probably driven by hunger, sometimes ventured within musket-shot, when they commenced their dismal howlings. Bears appeared more scarce; only one was seen during the whole winter. Although in November the temperature still continued steadily to decrease, yet the weather was so calm that the cold was not much felt, and open-air exercise was freely indulged in by all.

In summer the natives of Polar regions are often in indifferent "feather"—are filthily dirty, ill-clad, lazy, and spiritless; but in the winter the Eskimo is himself again. In the months of ice, he thrives in the severest climate experienced on the surface of the globe, and from frozen fields he gathers abundant food. In the month of November, the natives began to renew the visits to the "Plover" which they had for some time discontinued. "They appeared," says Pim, "almost different beings. Their light and filthy summer dresses had been exchanged for others that fitted more closely and were better made. They were no longer the apparently-overawed people who in their skin baidars paddled near the sides of our large ships, but seemed con-

scious that they were moving in an element for which nature had admirably adapted them. Their step was firm, their movements graceful, their dread of the white man had vanished, and they appeared to communicate with us on the footing of perfect equality. Whenever they arrived, their sledges were well laden with venison, fish, and furs. The latter were brought in in great quantities, for the eagerness with which they were purchased led them probably to suppose that we were traders. Even after they had comprehended the reason of our wintering in Kotzebue Sound, they continued to supply us with sable, ermine, beaver, fox, and other furs of more or less value. The fish were excellent in flavour, and occasionally of considerable size; one mullet, for instance, bought for an ordinary blue bead, was thirty-three inches in length, and weighed twenty-one pounds." It is unfortunate that Mr Pim does not give us the name of the exceedingly 'cute person who "acquired" twenty-one pounds of fish of "excellent flavour" for the value of a fraction of a farthing. The mercantile genius deserves to be immortalised.

In 1848 a report had been brought to Captain Kellett to the effect that a number of white men were travelling in the interior, and again, in November 1849, the natives further reported that two ships had been seen to the eastward of Point Barrow. It was considered that if the story was true, the ships in question could scarcely be other than the "Erebus" and "Terror." But there were reasons for believing that the rumour was false, and that the story was fabricated by the natives with the view of adding to their own importance—a practice not unheard of in regions nearer home than North-West America. For the purpose, however, of ascertaining how much truth there might be in these reports, Mr Pim proposed to travel to Michaelovski, a Russian fort on the south shore of Norton Sound, where constant communication with the tribes of the interior was maintained. For some time Commander Moore refused to sanction this journey; on the 10th March 1850, however, he yielded to Mr Pim's solicitations, and gave that officer instructions to set out on the expedition, and to take "Bosky" the interpreter with him. On the following morning Pim started with a guide and the interpreter, and followed the beaten track to the Spafarief River, taking with him a dog-sledge laden with provisions, arms, ammunition, etc. On the 18th, leaving the beaten track, he pushed on in a south-east direction, but began to discover that his dogs were worthless. "When night was approaching, a halt was called among some pine-trees, where a fire was kindled and some tea and soup prepared. The scene of a winter bivouac is indeed curious. The travellers grouped around the fire are variously employed—one is melting snow, another bringing fuel, while a third unpacks the sledge, spreads the deerskin to sleep upon, or prepares the provisions for cooking. The dogs, secured to

surrounding trees, strain their tethers to reach the scraps thrown to them, and occasionally send forth their long, dismal howl, only to render the scene more dreary.”

On the 20th, the dogs fairly gave in, and it became necessary to leave the sledge behind. Pim accordingly placed it *en cache* beneath a covering of branches and snow. He must now trust to his snow-shoes and his physical vigour. All day the party travelled rapidly toward a village well-known to the Eskimo who had been hired as guide, and late at night they reached it—only, however, to find it deserted. There was now only one day's provisions left; and from eighty to ninety miles must yet be traversed before Norton Sound can be reached. Next day a good pace was kept up, and a village was reached at ten o'clock at night. No natives, however, came forth to greet the travellers, “and,” says Pim, “we were soon made aware that no living beings were to be found within the huts. A search was instantly commenced, but only a little train oil rewarded the trouble, which, with a few scraps of leather, served as a meal for the dogs; and, scanty as it was, proved their salvation. Our own condition was by no means enviable; for when it is considered that twice the usual amount of food is required in these regions, our slight meal, from the remnants of the provisions, appeared meagre indeed.” On the following day, the guide proved to be at fault respecting the route, and the party started away across the sea-ice, “trusting, in a great measure, to chance.” The travellers walked all night, and at daylight were so exhausted, that at the risk of being frost-bitten, they were compelled to lie down on the ground. “As the day advanced, the guide declared that he could see a village. With great exertion we crawled to the hut, without, however, seeing any signs of life. Just as despair began to obtain the mastery, and induce an apathy as to our fate, a woman appeared, who inspired us with new life. We were soon ensconced in warm furs, and regaled with fish, train oil, and berries—to hungry men a most acceptable feast. The poor dogs, now in their sixth day of abstinence, were not forgotten; they were allowed an unlimited amount of fish, purchased with a clasp knife, which I happened to carry with me. Bosky at this place informed me that he was unable to walk any farther. The scurvy was breaking out in an alarming manner; his legs were covered with ulcers, having been frost-bitten while he was resting the last time, and now presented a shocking appearance; moreover, he had had a severe fall on starting from the last village. Notwithstanding, he kept up with us during the two-and-twenty hours that we were on the journey, and I cannot sufficiently admire the quiet endurance with which he bore his sufferings. Late in the evening the men returned from a hunting excursion. They had been lucky in the capture of a deer. We were, however, too sleepy to participate in the feast, especially as the fish sauce—*i.e.*, train oil—of the meal partaken did

not agree with our stomachs. We now learned with certainty that two days' journey would bring us to a small Russian outpost, where, Bosky assured me, every comfort would be cheerfully afforded." Starting next morning, Pim and the interpreter, after two days' march, arrived at a solitary hut, where they received food and shelter. Invigorated by a good night's rest, the Englishman and the Eskimo set out early for the Russian post, which was distant twenty-five miles. But the interpreter appeared unequal to this long march. After struggling on, and resting from time to time, they came upon the dead body of a deer that had been driven over the cliffs by the wolves that haunted the neighbourhood. It was arranged that Bosky should remain here while Pim went on to the outpost, from which he was to send back assistance to his exhausted comrade. On then pressed the Englishman—quickening his pace, as at intervals he heard the long-drawn howl of wolves. At length he reached the house, roused up the sleeping inmates, and was laboriously endeavouring to inform them by signs of the hapless condition in which he had left Bosky, when, to his astonishment, that worthy individual appeared in his own proper person at the door. He had become so dreadfully afraid of being attacked by the wolves, that he had resolved to come on at all hazards. Here Pim recruited; and after waiting and resting a number of days, he set out for Michaelovski, where he arrived on the 6th April. At the Russian post he learned that a number of white men were living in the interior, on a river called the Ekko, and were trading with the natives; and from a number of circumstances Pim "concluded that these persons must be a portion of Sir John Franklin's expedition." He now resolved to return to the ship, which he reached on the 29th April. In the meantime, further rumours respecting white men being in the interior had reached the winter quarters of the "Plover," and Mr Pim confidently expected to be sent off at the head of a relief expedition in search of them. To his surprise, however, Commander Moore refused to organise such an expedition, on the ground that he considered the rumours untrustworthy.

Summer now came rapidly on—geese, ducks, the golden plover, and snipe, came in flocks around the ship, and the hum of the mosquito was in the air. On the 14th July the ship was moved from her anchorage off Chamisso Island, and two days after the "Herald" was seen entering Kotzebue Sound. Captain Kellett received from Commander Moore information respecting the successive reports that had been brought to the "Plover" relative to "the encampment of white people in the vicinity of Point Barrow," and resolved to send the relief ship to inquire further into the matter. Accordingly, he furnished the "Plover" with fresh provisions and stores, and sent off her commander on this service. Having despatched the "Plover," Kellett set sail for the north to examine the condition of the ice, and to cruise about and afford assistance to any of the exploring vessels now

in the Arctic Sea. On the 13th August, the "Plover" hove in sight, and joined the "Herald" off Cape Lisburne, the place of rendezvous. Commander Moore had visited Wainwright Inlet and Point Barrow, but could not trace the rumours respecting the white men to any tangible source. It appeared that the Eskimos had invented the stories. "The Eskimos are quick," writes Seemann, "and where it is likely that their natural cupidity would be gratified, ever ready, can they but get a lead, to exercise their ingenuity by inventing a story. It was *after* Commander Moore had made the chief of the Hotham Inlet-tribe understand the object of the 'Plover's' wintering in those regions that the majority of the reports were received."

On the 27th, Captain Kellett turned towards the south, passed Behring Strait, and arrived at Michaelovski, on Norton Sound, to investigate the reports respecting white men which Mr Pim had heard there. The chief official and his second, however, had left the fort, taking all papers and letters with them, and no information could be obtained. Again the bow of the "Herald" was turned north; and on the 5th September, having re-entered the strait, she arrived at Port Clarence, where Kellett joined the "Enterprise" and "Plover." The latter had already entered Grantly Harbour, in which Commander Moore had resolved to winter, and on the shores of which he was already erecting a house for the reception of provisions. The house was finished on the 21st September, the provisions landed and stowed, and the ship dismantled. On the 23d, the "Herald" made sail again for the southern seas, and thus concluded its third and last summer cruise up Behring Strait.

CHAPTER III.

NARRATIVE OF A BOAT EXPEDITION ALONG THE ARCTIC COAST FROM WAINWRIGHT ISLAND TO MACKENZIE RIVER,—FROM THE HITHERTO UNPUBLISHED JOURNALS OF REAR-ADMIRAL PULLEN.

WE have now to follow Lieutenant Pullen in his adventurous and important boat expedition of nearly 1500 miles in open boats along the Arctic shore, from Wainwright Inlet to the mouth of the Mackenzie River. Through the kindness of Lieutenant (now Rear-Admiral) Pullen, who has placed his most interesting journal of this undertaking in our hands, the present writer is enabled to give the first detailed account of this expedition that has ever been published.

A preliminary sketch of a search along the coast for suitable winter quarters by Lieutenant Pullen places us at once within the scene of action, and restores to us the trim forms of H.M.S. "Herald," the lively yacht "Nancy Dawson," and the slow and heavy "Plover." "On Friday, the 20th July (1849)," writes Mr Pullen, "it was quite calm, and as I was to go away with two boats, I got all prepared; and taking a week's provision, shoved off at 5.45 P.M., in order to examine the coast between Capes Lisburne and Sabine. I pulled in directly for the cape, and within a mile of it discovered an oomiak or baidar (Eskimo boat of walrus hide stretched over a wooden frame, very buoyant, easily carried, and propelled with paddles) coming up the coast. At 7.30 we reached the cape, and while waiting for the second boat, which was some distance astern, the oomiak approached with friendly salutations, evinced by their holding up their arms and shouting.

"On coming alongside, the man who was working the after paddle seized hold of my head, greatly to my surprise and disgust, and began to rub noses. At first I did not know what he was going to do, and did not submit with a good grace; but recollecting it was their mode of salute and friendly greeting, I quietly resigned myself to my fate, but was very much pleased when released from the embrace; for so fierce was the fellow with the rubbing, that my nose felt it for some time after. There were eight people in

the boat, two of whom were women—the youngest of whom might be pronounced well looking, and, if freed from the dirt and grease on her face, of rather good complexion. They were all clothed alike, in dresses of deer-skin, consisting of frock, trousers, and moccasins; the only distinction between the sexes was, that the frock of the women was rather longer, and was rounded both before and behind, and the men wore those hideous lip-pieces. They were very glad to see us; advanced towards us laughing and talking at a great rate; and thinking, I suppose, we were in want of something to eat, they gave us several of the sea-fowl they had in their boat. We gave them in return beads and a few pieces of tobacco, with which gifts they were delighted. Our second boat now having joined us, we pulled on, the natives following in gradually increasing numbers. We were now passing along a long gravelly beach, on which I landed. The men tracked the boats, in which they were readily assisted by some of the Eskimos, while others walked along with us arm-in-arm as if we were the greatest friends in the world. At last the kindness of the natives became more a hindrance than help; so, to get rid of these demonstrations of affection, we shoved off again, keeping a sufficient distance from the shore to prevent their following us, and at midnight landed on a low shingly beach, close to a native camp, eight or nine miles from Cape Lisburne. At the back of this beach was a very large sheet of water, a mile at least in breadth, and backed up by a range of barren hills, from eight hundred to a thousand feet in height. This was a part of the coast to which I was to direct my attention, but as yet I could see no entrance into this lake from the sea, nor did I think the water of sufficient depth for a vessel of the 'Plover's' draught. The Eskimos at the camp were apparently all asleep when we passed, but directly after we landed they woke up, and darted out among us after they had got rid of their timidity, and had become assured that we were friends. I gave them a little tobacco and a few beads; but they were most desirous of getting the uniform buttons of my coat, and were delighted with the few loose ones I gave them. We again shoved off, and followed the coast along to the eastward, but it was more for the purpose of getting rid of the natives than for any other reason; and at two o'clock on the morning of the 21st we landed again, about two miles to the eastward of our last position, and hauled the boats up to give the men a few hours' rest. The large sheet of water at this spot was only separated from the sea by a narrow gravelly beach, not exceeding two hundred feet in breadth, and we now found the water, on tasting it, to be perfectly fresh, and the surface about four feet in perpendicular height above the level of the sea. We remained until six o'clock, and then launched our boats again, assisted by the Eskimos, who had joined us from the camp shortly before our starting. Keeping the shore close aboard, on getting eastward we observed a strong body of water rush-

ing out from the beach, which I conjectured might be from the lake ; but on landing we found it was from a small stream, flowing to the eastward of a large fresh-water lagoon, and separated from it by a narrow belt of marshy land. Where the lagoon terminated, the hills on its southern shores bent round to the south-east, forming the south-west boundary of the flat marshy land, from which the stream issued in a direction north-east by east. Cape Lisburne now bore from us west, fourteen or fifteen miles distant, and the direction of the lagoon was west-half-south, its eastern extreme from two to three hundred feet from the sea. To the eastward of this the coast, as far as Cape Sabine, consisted of high muddy banks, faced occasionally with immense accumulations of snow, quite overhanging a narrow beach, and requiring a much greater duration of powerful sunshine than this part of the world is ever blessed with to clear it away. As Cape Sabine was to be the limit of my examination for the present, we landed a short distance to the westward of it about noon, close to the mouth of a small stream, with not water enough in it to float a jolly boat. Up to this time the weather had been perfectly calm, but now a light breeze sprang up from the westward, which I expected would soon bring up the ships, which were to pick us up off this cape, so we hauled up ; but by two o'clock the gradually increasing breeze had raised so much surf on the beach, that we were obliged to launch the boats and anchor at the back of it. When, however, at four o'clock, there was still no appearance of the ships, we weighed and pulled towards Cape Lisburne that we might the sooner meet them.

“At eleven o'clock that night we were only off the eastern end of the lagoon, but as the wind was now decreasing, it was likely we should make better progress henceforward, and accordingly we hauled more off shore, and at midnight anchored some distance from the nearest land, and from where we were could hear what we believed to be a heavy surf continually breaking on the beach. At four o'clock on the morning of Sunday the 22d, we weighed with a light westerly breeze, and shortly after saw a sail in the offing with courses down, standing to the north. We hauled out for her, and soon saw another to the northward of the first. When we had continued to pull for another quarter of an hour, and still saw no sign of a third vessel, I naturally concluded that the two seen were whalers, and resumed my course for Cape Lisburne, expecting to find the ships at the anchorage where I had left them on the preceding Friday evening ; but in another quarter of an hour we observed a third sail a long way to the southward, and almost at the same moment we saw the smoke of a gun rolling off in eddies from the side of the mid-ship and first seen vessel, and this was sufficient to satisfy me that she was the ‘Herald,’ the northerly one the yacht, and the last of all the poor ‘Plover,’ with every possible stitch of canvas set, making the most vigorous, but unfortunately unavailing, efforts to get on. At seven

o'clock the wind was all gone, and at 9.30 I was received on board the 'Herald,' and made my report of an unsuccessful search to Captain Kellett, and thence proceeded to the 'Plover,' and communicated the same intelligence to Captain Moore."

Mr Pullen's actual work, however, did not commence till the 25th July; when, the boats being fully equipped and provisioned, he received his final orders from Commander Moore, and shoved off a short time before midnight. "We left the vessels under sail," says Mr Pullen, "with a light breeze coming from the land, and we soon saw them get under way and follow us. My small expedition consisted of four boats, viz., the 'Herald's' decked boat, called the 'Owen,' after Captain (now Admiral) William Fitz-William Owen, one of my most valued friends; the 'Plover's' pinnace, and two whale-boats. Three officers, Mr W. Hooper, acting mate, Mr H. Martin, second master, and Mr J. Abernethy, acting second master, etc., and twenty men, one of whom was an interpreter, brought from Petropaulovski by the 'Herald.' The deduction of so many men from the 'Plover's' complement left her but few remaining hands; the 'Herald,' however, supplied her with ten from her number. After taking our whale-boats in tow, arranging signals with Mr Martin, who was in the pinnace, and setting the watch, I retired to such small accommodation as we possessed, with hope and trust that the great God, whom we all serve, would vouchsafe unto us His protection, and grant us success in the service in which we were engaged.

"On the 26th the fog closed round us at 5.30 A.M., with wind moderate from the north-north-east. We were still on the starboard tack, having our consorts about one mile distant on our weather quarter, and the 'Herald' and 'Plover' to leeward. This was the last time we saw either of them. At ten o'clock we observed, through a break in the fog, the yacht passing just to windward of us, and also got sight of the pinnace for a short time. We immediately signalled to her to close, and henceforward kept together as long as the fog lasted, never at any time being separated by more than a distance of one hundred feet. When it cleared at eleven o'clock, we tacked, and stood in for the land, and at noon were in lat. 71° 11' N., and long. 159° 10' W. Of our two sailing boats, the 'Owen' was decidedly the fastest; the pinnace was a little more weatherly, but so little that it was barely perceptible; the former was rather leaky from long exposure to warm weather, without having been in the water. The whale-boats were in good condition, but could not proceed as rapidly as the large ones under sail, consequently they were kept in tow, with their sails set, and with crews constantly in them. . . .

"At 11.30 at night the fog cleared away altogether, and disclosed to us the sun slowly circling the western heavens in an orbit of a blood-red colour,

and when on the meridian, about two degrees above the horizon. The weather was now most beautiful. The thermometer stood at 44° in the air, but a heavy dew fell, which made it rather cold; and the frosty look of so much ice about us added, I daresay, somewhat to the feeling. On one or two occasions, I am confident we must have passed over a sleeping walrus, or, at all events, gone very near it, for they rose close under our stern, looked at us with astonishment, and seemed very well disposed to try their strength against us. . . .

“On the morning of the 28th it was almost calm when we landed off a low, shingly beach, in lat. $70^{\circ} 56' N.$, to replenish our water casks. Inside the shore was a large sheet of water, but it had no outlet to the sea fit for boats of any description, and seemed to be entirely formed by streams, which, having their origin in the melting of the snow, flowed into the lake from the several gullies at the head of it. The country round formed an extensive plain, rising a little to the eastward, and covered with dry withered grass, except just about the water. After we had filled our casks, we embarked again, and at nine P.M. weighed, and partly by towing, and partly by taking advantage of the light northerly wind, when it favoured us, reached Refuge Inlet about midnight. I pulled into it with one of the whale-boats, but, owing to the shallowness of the water, could only advance a very short distance. The channel was very narrow and winding—three feet deep at the bar, immediately inside of it only two, and then one, so that I considered it quite unfit for our large boats, particularly as a westerly wind would raise a very heavy surf. A better shelter, should we require it, might be found under the lee of some of the grounded floes, many of which we were likely to meet on our course to the northward.

“On the northern shore of the inlet stood an Eskimo camp, which we visited, and round which we walked, looking into the tents, and examining everything that seemed worth noticing, at which procedure the inhabitants seemed greatly pleased. They brought out their skins for the purpose of barter, and would have favoured us with a dance, but that our time was too precious to wait, and the light wind was favourable. After giving them a few beads and tobacco, we returned on board, and ran to the northward, keeping close along shore in from one and a half to two fathoms water. Previous to our getting up to Refuge Inlet, about ten P.M. we had seen a sail in the offing standing in for the land.

“The wind was now veering to the eastward and the ice becoming much heavier; while the shore was completely covered with snow. Large flocks of ducks and geese were continually passing us, and immense numbers of the diver tribe were generally congregated close up under the ice.

“At 1.15 A.M., Sunday 29th, passed Cape Smyth within a cable's length of the shore, and saw the main pack apparently close in to the land, and

stretching far away to the westward, as if with the intention of checking our further progress to the northward by a solid barrier. At two A.M. we hauled to the westward, as I fancied I saw a passage in that direction, and soon made out the sail we had previously seen to be the 'Nancy Dawson,' standing in for the land, close along the pack edge, with a light westerly air. . . . At six A.M. I boarded the 'Nancy Dawson,' and learned from Mr Sheddon that he had been up to 72° north, and coasted the pack down to this very spot without finding any lead to the northward—nothing but an impenetrable barrier of ice. I now stood in for the shore, with the light north-west breeze which the schooner had brought up with her, to try the channel spoken of by the Eskimos; but our progress was very slow, as we had only just wind enough to stem the current.

"I landed on the southern extreme of the ice, and got a meridian altitude, giving the latitude 71° 16' north, and distant about five miles from the nearest land. At this point the elevation was about twenty feet above the sea, and all around to the north of west and east-south-east was one vast field of ice, studded with every variety of fantastic shapes, glittering with dazzling splendour in the warm sunshine of a most beautiful day. To the eastward lay the low land, stretching to the north, with snowy patches here and there interspersed, and a narrow belt of open water winding between it and the pack, like a dark thread on a white surface, and which I take to be the channel spoken of by the Eskimos. Their tents were now visible, and their appearance, together with the noisy shouting which the natives make in communicating to each other, offered a scene of busy life in strong contrast with the perfect calm which elsewhere reigned around, and which was broken only by the washing of the water against the ice, or the heavy splash caused by the toppling over of an overbalanced and heavy mass.

"At 3.30 P.M. we got into a deep bight, formed by the pack and shore; and as it was now blowing a fresh breeze from the northward, with a two-knot current from the same quarter, and much ice driving, I came to in four and a half fathoms, half-way between two large and heavy floes, a quarter of a mile from each other, and both aground in the mouth of the bay. Our distance from shore was a long mile, and three-quarters of a mile from the south-east point of the pack, forming the southern extreme of the western side of the bight.

"The channel leading northward appeared to commence in the very bight of this bay close in shore; but as the ice was too thick between us and it to allow of our attempting its passage, we hauled under the western and smallest floe, where we got shelter both from the increasing breeze and the ice, which was now driving to the southward through the bay with great force. At 4.30 the 'Nancy Dawson' anchored to the south-west of us, at about a quarter of a mile.

“In the course of the night the breeze freshened, and it was fortunate for us we were under such good shelter. During the entire 30th, we were confined to our position, not daring to venture with our boats from either end of the floe—so heavy was the drift, tearing and crashing past with fearful violence. The schooner was just in the stream of it, and at times completely surrounded, and heeling over with the weight when taken on the broadside. At length Mr Sheddon, by perseverance and good management, brought her up alongside of us, and shared the snug berth we had secured.

“There was nothing left for us now but to get our small boats ready, and push on with the first opportunity, for I did not expect to get the larger ones farther, so I had the whalers loaded with seventy days’ provisions for fourteen men (the number we should muster), besides twenty cases of pemmican, each containing about thirty pounds. This burden sank them very deep; and when the crews got in with their small stock of clothing, I found it was rather more than the boats could bear. A weight of provisions, amounting to ten days’ consumption for each man, was then taken out of each; and I determined, besides, if an opportunity should occur, to take the large boats on to Point Barrow, or even beyond it, if I should see sufficient reason to satisfy me that the ice would continue in a sufficiently open state to allow of their return. On overhauling our provision, I found we were short of bread. Mr Sheddon having been informed of our want, immediately supplied us with two bags, as also with a pickaxe and shovel, articles we should most certainly want for the purpose of making deposits; and at the same time offered to supply us with any description of store we might require, as he had an abundance of every sort on board.

“The morning of the 31st set in with a thick and heavy fog, the wind being still from the old quarter, and as much ice as ever driving past our break-water and pressing heavily on its weather side. At seven A.M. the fog broke away; and at eight A.M., between the heavy pressure of ice and our weight to leeward, our friend the floe parted with a crash, and set us all adrift. We were soon under sail, turning to windward to fetch the large floe which lay on the eastern side of the bay, but were obliged to wind and turn about so much, to avoid contact with the loose ice, that it was past ten o’clock before we could manage it, although the two floes lay only half a mile distant when we parted, and that one to which we were directing our course was less than a quarter of a mile to windward. The schooner being heavier, was not so easily managed among the ice, and it was half-past twelve before she got alongside of us again. Turning to windward, and winding amongst the loose masses in gallant style, Mr Sheddon came up safely, and immediately sent his carpenter to repair some slight damages we had sustained in the crash. Towards evening the wind became moderate, with less drift-ice, and the channel apparently clear; so at 6.30 P.M. we cast

off from the floe, parting from Mr Sheddon with mutual good wishes. He was evidently thinking of taking his vessel on, but I strongly recommended him to attempt no farther advance—unprovided, as he was, for wintering, in the event of being caught by the ice.

“The whale-boats pulled up in-shore, while the larger ones, aided by the smooth water and moderate breeze, nearly worked up as fast, when at nine P.M. the wind had hauled so much to the eastward, that they were enabled to take the whale-boats in tow, and make a good lay along the shore. We were now fairly in the channel (which we found varied from three-quarters to half a mile in width, the water being smooth, and the drift-ice very trifling); all in good spirits, and—as appearances then went—having a fair prospect of reaching Point Barrow by midnight at the furthest. The sky was beautifully clear; but a heavy wetting dew that then fell made the evening cold and chilly—the thermometer stood at $33\frac{1}{2}^{\circ}$. The shore was crowded with Eskimos—men, women, and children turning out—singing, dancing, and shouting at the top of their voices, and trying every inducement to make us land. They followed us on, their numbers gradually increasing. In a single group I counted forty-six, among whom was one immense fellow, completely topping all the rest, and at the least, I should say, six feet and a half in height. As we were not more than a couple of hundred feet from the shore, we could see plainly, and at times went so close as to be able to make out the differences of sexes, though their dresses are so very similar that it is only by the blue lines on the chin of the women that we could at times distinguish them.

“At eleven P.M. it was quite calm, and close ahead of us was an immense floe stretching directly across the channel, completely barring our farther progress, and upsetting all hopes of reaching Point Barrow this night, while the fog at the same time closed thickly around us; so we hauled in to the shore, securing by, and under, the lee of a projecting piece of ice. We were hardly fast when a number of natives sat down in our vicinity, and began pestering us with their barter; however, they were friendly, and behaved very well, only obliging us to keep a sharp look-out, for the most trifling article seemed so attractive that they would use their best endeavours to become possessed of it.

“On Wednesday morning, the 1st (August), the ice had driven off shore a little, and the fog all disappeared, when, partly under sail and partly by tracking, in which the natives readily assisted, we advanced slowly until eleven o'clock, when the channel was so effectually blocked up by the ice from the shore to the main pack, as far north as the eye could stretch, that I saw no possibility of getting on, and I really thought our farther advance was entirely checked, and we might have to return to the vessel quite unsuccessful. I was greatly disappointed, for I had hoped to reach Point Barrow,

at least, without any difficulty; but as regretting would do nothing for us, I hauled in for the land and secured, determining, if to-morrow I should see no change, to haul the whale-boats across the narrow strip of land into Elson's Bay, and push on in that direction. The wind was now from north-east, but light; an increase might drive the ice to a sufficient distance off the land to enable us to proceed, or a southerly wind might start it altogether, as a great quantity of it was shore-ice and very much decayed. At 11.30 A.M. I landed among a large concourse of natives, who, directly they found we wanted firewood, collected and brought us a large quantity, and were in every way friendly. Such behaviour I could not pass over without notice, so got them all seated in a ring, and, with our small stock of Eskimo, made them a speech, saying how anxious we were to be peaceable with them, and how eagerly we hoped that the good feeling now existing would continue. I then explained the errand on which we had come hither, and expressed my hopes that they would lend us their assistance. By means of the words 'Kabloonan teyma mueet' (white men friendly to the Eskimos) and signs, we managed to make each other understood. Mr Hooper was a famous auxiliary on these occasions, so the interpreter was not much missed. I distributed among them beads, tobacco, and two or three knives, the latter of which I was at a loss how to bestow, wishing to give them to the chiefs; but as I could see no mark of distinction among them, I gave one to a woman who had a swelled face, from a severe blow received in carrying firewood for us, and the others they scrambled for—at which they were as much delighted as at the receipt of other trifles. The latitude at noon was $71^{\circ} 20' 30''$ N., about three miles south of Point Barrow, which just then I saw no possibility of reaching.

“After dinner we hauled the boats close up to the ice, and endeavoured to force a passage, but it was too firmly set. I then pulled along the edge up to the main pack, and into many indentations; but the whole composed one solid mass, some parts aground in as much as five fathoms water. I then returned to the boats and landed with a party to walk across to Elson's Bay, but before we got thither such a thick and wetting fog had closed around us, that, on reaching its shores, we could not see half-a-dozen yards in advance. On our way we passed through a native village—a great many of the people accompanying us; and as we were returning more had assembled round a turned up oomiak, to leeward of which the old men and some others, who apparently were chiefs, seated themselves, while the younger of both sexes danced for an hour, or at least as long as we remained with them, under the direction of the elders. They did not, as Simpson witnessed, form in a circle, but stood in two lines—two men and three women, the latter in front—all dancing together, and the women being constantly

replaced by others as they tired. The motions of the men were vigorous and energetic, commencing slowly, accompanied by the voice, quickening as they got on, with shouting and jumping, as if imitating the chase and encounters with the monsters of the deep; whereas that of the women was a slow stepping motion, accompanied by movements of head and hand, which, in some of the young damsels, were not ungraceful. The music produced was from an instrument made by stretching the intestines of a seal over a circular frame, so as somewhat to resemble a large battledore. It was beaten with a stick, and when accompanied with the voice in a low monotonous chant, did not sound inharmoniously in the distance. The first time we heard it was on the evening of the 31st, as we were running along the coast, and, at the distance we were from them, the sound was really pleasing.

“On our return we were stopped by a few people, among whom was a man, one of whose hands had been severely wounded while he was engaged in hunting. He was very desirous I should do something for it, and followed us on to the boat, where I gave it a good washing with warm water, and did whatever my small experience to alleviate his sufferings suggested, and finally bound it up; this relieved him at all events, for before he seemed suffering much pain, but when he left us it was with a gratified air.

“The weather was now perfectly calm, with still the same heavy impenetrable fog hanging round us, when, shortly after getting on board, we heard the report of a heavy gun to the southward, which we answered with a light three-pounder which we had mounted in the ‘Owen.’ I was in hopes it might be either the ‘Herald’ or ‘Plover,’ but after pulling about a mile in the direction, saw the schooner ‘Nancy Dawson’ looming through the fog, having just anchored. I went on board, and Mr Sheddon said it was his determination to follow us on as far as possible, in spite of all difficulty. At eleven P.M. the wind sprang up from south-east, and at midnight the ice was driving northward. At two A.M. a large floe came athwart the schooner’s hawse, and drove her close in to the shore, but as it hung by a projecting point south of her, she did not take the ground. I returned to the boats and found our obstructions on the move, breaking up with heavy crashes, and driving to the northward with a current of at least one knot and a half an hour. At 5.30 A.M. it so cleared, and the fog so well dispersed by the increasing breeze, that we cast off and made sail, threading our way through the loose masses, receiving occasional bumps, till at seven A.M. on the morning of the 2d we rounded Point Barrow, and anchored in two fathoms water, one hundred feet off shore, with mingled feelings of delight and gratitude to the merciful Providence which had conducted us thus far in safety;

and with a silent prayer for a continuation of the protection and aid which had hitherto been vouchsafed to us."

At Point Barrow, Mr Pullen was obliged to reconsider the situation in which he found himself placed from all points of view. "Now was the time," he says, "to decide on my future operations—whether to make a bold push for the Mackenzie with the whalers, or attempt a portion only of the distance with all. I learned from the Eskimos that the ice was open for boats the whole way along the coast; with their information, which I have generally found correct, and what I could now see, and have experienced, I was for the former; but the consideration that if we should not be able to return, and should, in consequence, be obliged to seek the Hudson's Bay posts, the provision taken in the whale-boats would never hold out for the winter, formed in my mind an almost insuperable objection to such a course, for I knew not of the possibility of establishing fisheries. However, it was only a momentary apprehension, which was entirely removed by an opportunity, now afforded and eagerly embraced by me, of purchasing a large oomiak from the Eskimos, which would enable us to carry a greatly-increased stock of provisions, and I could not doubt, with the aid of that Providence which had brought us thus far in safety and our own good-will to the work, of being other than successful in reaching the river. At the same time, I determined on taking the large boats on for one day, as I saw nothing as yet to prevent their return."

On the evening of the 2d August, the expedition again started to push on eastward. "As we were on the point of leaving," says Pullen, "Mr Sheddon, with two of his men, appeared, having landed two miles to the southward and walked up the coast. He came on board, and again offered any supplies we might require, but as we had everything necessary, I could only repeat my thanks for his kindness and for the service he had already rendered us. He said he should either remain here for the return of the large boats, or wait off Refuge Inlet, where it was his intention to make a large *cache*; and every day at noon, after the 14th of August, he would fire a gun as long as he remained in sight of the ice. At 11.30 P.M. we parted, with mutual good wishes for each other's success—he for his vessel, then not more than a mile from the point, and we to the eastward, with a light southerly wind and easterly set. It was the last time I saw him alive.

"Our course was rather a devious one, being among the loose ice and quite out of sight of the low land of Elson's Bay. At noon of the 3d we were in lat. 71° 17' N., long. 155° 08' W., running with a moderate but increasing breeze, by the aid of which, and of the current, we made rapid progress, and shortly got sight of a low gravelly patch, being the westernmost of a chain of small islets, marked in Simpson's chart as ex-

tending from Point Tangent to Boat Extreme ; we coasted them along in a depth of from one to two fathoms, the ice in several places close down and piled up, looking at a distance like high bold cliffs, and betraying its true nature only as we passed close to it. The southerly wind was evidently driving the loose ice off shore, leaving a clear open space ; and at 2.30 P.M. we anchored in five feet water, about two hundred feet off the northern shore of one of the islets, in a heavy squall accompanied with rain, and commenced to load our small boats, and make every preparation for proceeding now only with them. . . .

“The morning of the 4th set in with dark heavy weather, with occasional fog and rain and wind flying about from all quarters of the compass, but in the evening it settled at south-west, and as our three boats were ready, I determined on starting. . . . In the meantime, I mustered the men into their respective boats, which I named as follows, viz., first whaler, ‘Louisa ;’ second whaler, ‘Logan ;’ and oomiak, ‘Supply ;’ and found they contained at least ninety-four days’ provision for fourteen men, besides twenty cases of pemmican, each case containing about thirty pounds ; and that, notwithstanding the large amount we carried along with us, we still left with Mr Martin in the large boats a three weeks’ supply. Our little craft certainly swam deep, but we were all determined to put up with every inconvenience and hardship in the hope of succouring our gallant countrymen ; and I do not think a man of the party had the remotest idea that we should not get on. Certainly I would not have put such cargoes in such small boats under any other circumstances.”

It being now impossible to proceed farther with the two large decked-boats of the expedition, Lieutenant Pullen placed these in charge of Mr Martin, second master, who received full instructions to take them back to the winter quarters of the “Plover.” The Mackenzie River expedition then numbered fourteen persons, including officers ; and these were distributed—seven in the “Louisa,” six in the “Logan,” and one to steer in the oomiak “Supply,” which was towed. The onward expedition separated from Mr Martin and the return boats on the 4th August, and steered for the eastward. On the 5th, Dease and Simpson’s “Boat Extreme” was passed. Here the shore was found to be low and swampy, and the country behind formed a vast treeless plain, covered with short grass and moss. On the morning of the 10th, after having crossed Harrison’s Bay, the two whale-boats and the “Supply” oomiak got among quantities of driftwood streaming to the northward with the ice. “Since midnight the wind had been increasing, creating a nasty cross sea, which caused our poor little craft to labour heavily, and ship much water ; and as the soundings gradually lessened from three and a half to one fathom, all hands were anxiously looking for the land. At 2.30 A.M. the ‘Supply’ parted her tow rope, but we secured her again ; and

at three A.M. sighted land, lying very low, which, from the shallowness and great discoloration of the water, and the quantities of driftwood which lay around us, I took to be near the mouth of the Colville. At 3.15 A.M. the water had shoaled to two feet, and before we could haul off we grounded; then poled into deep water, and pulled to the northward. Our situation now became rather critical, with such a sea on and the land barely in sight. We accordingly bore away south, to try for a landing at all risks, dead lee-shore as it was. At 3.40 A.M. the 'Supply' pitched under, and from the weight of water on her head sheets, broke off the rail, and tore the skin nearly down to her water-line. As the whalers were not in a much better condition, or able to relieve her of any of her weight, I reluctantly gave the word to lighten the boats, but we threw overboard only the bread, etc., that had been damaged while we were crossing Smith's Bay on the 5th. The boats felt the relief directly, and bounded on to the distant shore with increased speed, reaching it at 6.30 A.M.; and we succeeded in landing on a low, gravelly beach, on the eastern shores of Harrison's Bay, in lat. 70° 28' N. We hauled up and cleared immediately, and on examining the stores, found that 250 pounds of bread, seven cases of preserved potatoes (about 190 pounds), and a ten-gallon cask, had been thrown overboard.

"This was quite an unavoidable calamity, for even before the things had been consigned to the deep, I had hardly expected to see the 'Supply' keep up much longer, far less to reach the shore; and, could I have foreseen such an occurrence, I never would have attempted to cross the bay in so direct a line. When we left Cape Halkett there was no reason to expect such weather; and by making a straight course, we should avoid the shoals of the Colville, which Simpson had such difficulty in clearing; as it was, we did not escape the outer points of these. We had certainly great reason to be thankful to Him who orders all things for the best; and it now became our duty to determine to be extremely economical in the consumption of that portion of our stores which still remained to us. The worst part of the voyage I considered over, for there were no more of these deep bays to cross; and I hoped to be able to keep the shore close the remainder of the way. At ten A.M. the weather cleared a little, and the sun favoured us with his cheering warmth, raising the thermometer up to 47°, of which favourable event we took advantage by exposing our wet bread, clothes, and bedding. Of the latter articles, indeed, our stock was very limited, for where provision was the main object, and took up so much room, we thought of little else on leaving the vessel, and amongst the fourteen we could not even muster a blanket. I often found it a difficult job to manage a change if any of my things got wet, or to keep myself warm, particularly when I was sitting in the boat.

"After breakfast I sent the men to have a sleep, and at one P.M. got

them all busy again putting things to rights—the carpenter repairing the ‘Supply’—till at eight P.M. we were all ready for another move, with both wind and sea considerably abated. While the men were employed, I walked along the beach to the northward, and, on turning a point, saw, about three miles off, a large native village. As I did not wish to have the inhabitants among us while all our things were spread out, I turned back immediately. . . . The Eskimos on the point soon got sight of us, and assembled, making the usual friendly signals.

“This point, from the latitude I got yesterday, I considered as Point Berens, the most eastern horn of Harrison’s Bay, where I intended burying pemmican—which would not only be a relief to our boats, but, as the point forms a very conspicuous object, would most likely be visited by any of those we are in search of, if they should get down on the coast. We therefore landed among a noisy group, and were received, as usual, with every demonstration of friendship. A brisk trade in wild geese, moccasins, and fish, was carried on, after which I made them the usual present, by which means they were kept away from the party who were making the *cache*. . . . The mark, of course, we could not hide: it was a pole fifteen feet in length, with a double cross on the top, and a board underneath, with the following notice carved on it: ‘“Plover’s” boats arrived here on the 11th of August 1849; ten feet N.E., search.’ At that distance were deposited three cases of pemmican, with the following notice in a preserved-meat tin: ‘The “Plover’s” boats arrived here on the 11th of August 1849, on their way to the Mackenzie, with relief for, and in search of, Sir J. Franklin and party, with orders to return, after visiting Point Separation, so as to reach the ship by the 15th of September. If not able to do so, will go on to the Hudson’s Bay posts on the Peel River, or to Fort Good Hope, thence on to York Factory, and report proceedings as soon as possible to the Admiralty. The boats left the ship on the night of the 25th of July; Point Barrow, night of the 2d of August; and this the same day (11th August). The “Herald” is also in the Arctic seas; brought provision up to the “Plover,” and will see her in her winter quarters before she returns south.’ On preparing to leave the Eskimos we missed the shovel, and, on looking round, saw one of the natives standing close to the direction post, away from the others, and endeavouring to conceal something. I walked up to the fellow and gently tried to move him, as I was certain the missing article was underneath. The thief resisted, but Mr Hooper passing his hand into the sand, pulled out the shovel, greatly to the Eskimo’s mortification. On getting into the boats, the natives seemed very much inclined to make a rush on us, and the same man made another attempt to accomplish his desire, by holding on to the boat with one hand and seizing the shovel with the other. He was at last forcibly shaken off by one of the marines.

“Proceeding eastward for about two miles along a low sandy coast, we endeavoured to land to examine what looked like a signal mark, but owing to the shoal water, could not get within a quarter of a mile. However, as we advanced farther, we saw from another direction that it was not such a signal as should lead us to suppose that white people had been there. Farther on again, a mark more conspicuous than any we had yet seen attracted our attention, and we landed a short distance west of it, but found after all it was just such a one as we had before seen, except that it was a little larger. Here we dined, and were shortly after joined by a party of Eskimos landing from an oomiak, among whom we recognised a woman, and also the man who had attempted to steal the shovel that morning. We did not allow them to infringe upon our boundary line this time, and watched them quite as closely as they did us. We shoved off, leaving our friends behind, and with a light air from north-west, followed the shore as close as shoal water would allow us; and when abreast of the western part of the eastern isle of Jones’s group, hauled over towards it. The mirage was now very strong, objects assuming ever-varying and distorted shapes; and when half-way across the channel, between the islands and the main, I was so firmly convinced in my own mind that a large boat was coming in from seaward under sail between the two islands and towards us, that we down sail directly, pulled out for it, and did not discover until having approached it, considerably to our disappointment, that it was a small piece of ice, of which there were great quantities close down on the northern shores of the islands.

“Soon after we saw the oomiak, much farther to the westward, paddling up towards the islands. I supposed the Eskimos were going out after seals. At 8.30 P.M. we landed on the southern shores of the eastern isle about half way along it. It was now quite calm, and as I intended to go on all night, we got supper. While the men were lying round a large fire, getting a little sleep before starting, we were visited by a party of natives, none of whom we had seen before. Among them was a man, apparently a chief, with a musket of English manufacture, having the name ‘Barnet’ on it. He had also a powder-horn and about a quarter of a pound of powder, but no shot. He was very proud of his treasure (which, however, looked rather the worse for wear), and was very desirous of getting more ammunition. He fired off his musket twice as if to show that he knew how to use it; but it was not done without great preparation, such as planting himself firmly on his legs, tucking up his sleeves, and throwing back the hood of his frock. Indeed, the second time he fired he threw the hood off altogether in order to be quite clear of it. I gave him a charge of powder, and to the rest, as well as himself, a few beads and pieces of tobacco. Great shouting was now heard, and as it soon became evident that there were many more natives approaching, I roused the men up, got into the boats, and at 11.30 P.M. pushed off.

“As we pulled to the eastward we saw four more oomiaks full of people, and two large camps or villages, one on a point abreast of us, the other, and the largest, on the first point westward of Point Beechey. Although the weather was calm, there was every appearance of a change, as we could see heavy clouds banking up to the north-east, and this made me very desirous of getting out of the vicinity of such a number of strapping looking fellows as were now about us. There were five oomiaks; in one I counted twenty-three people, two of whom were women. None of the others contained less than sixteen, and they all seemed very desirous to get alongside of us, shouting and talking as if displeased at our keeping such close order, and such a sharp look-out on their every movement.

“We passed very close to the large camp, and the oomiaks followed us a short distance beyond it, when, finding none of their persuasions would induce us to land, they turned back, and, I hoped, had left us for good. It was now one o'clock on the morning of the 12th, and we had a good breeze from north-east, which by two A.M. had so much increased, and the sea with it, that we were driven to the shore and landed on a very shallow flat beach half-a-mile west of Point Beechey. We had not been long here when the natives came to us in numbers, walking along the shore from the large camp, which was about two miles distant, and from which they must have evidently watched us. I should say there were not less than eighty men and women, among whom was the chief mentioned above, with his musket carried by his wife, as well as the man who tried to steal the shovel at Point Berens. I judged from the pertinacity which this man evinced in following us, that it was his intention to make another attempt to steal something, or perhaps attack us; but although I felt perfectly at ease, seeing no arms among them except their knives, I had everything ready to embark at a moment's notice, and Mr Hooper's double-barrel, as well as my own, was always loaded and at hand.

“A boundary line was drawn, and all were seated quietly on their proper side, preparatory to a distribution of presents, when the chief stepped towards us with his musket, making earnest demands for powder, a request I would not comply with, and accordingly motioned him off. As soon as he found he could not succeed, he gave his gun to his wife, walked a few paces towards a projection in the bank, picked up something there secreted, which we soon discovered to be his bow and arrows, and returned, and at the same time all the men in the company acted in a similar manner. This I considered as almost a declaration of war, and therefore ordered the breakfast (which was preparing) into the boat, and the 'Logan' and 'Supply' to shove off into deep water—Mr Hooper, the two marines, and myself, keeping a sharp look-out with musket in hand, while they were about it. The chief now tried very hard to get on the bank—rather above us—but that we prevented.

As soon as we found a favourable opportunity, the remainder of us moved to the 'Louisa.' The Eskimos immediately made a rush for the bank, hoping to catch us at a disadvantage ; but we were too quick for them. We got into the boat, and shoved off, some of us always keeping our fire-arms at the 'present,' and soon joined our consorts. One fellow had the arrow on the string, and his bow at full stretch, directed at me, when fortunately I saw it, and covered him immediately. As soon as the rascal saw this, and perceived besides that my gun had two barrels, he thought better of it, dropped himself and weapons down out of sight in a moment, and did not show again.

"This embarkation was effected with the loss of our cocoa and boats' anchors, which the bow-man in his hurry had forgotten, until it was too late to pull in again ; and what was of more importance still, with the additional inconvenience of losing part of the distance we had gained, for the wind was now strong against us, and we were obliged to run back very nearly to where we stopped the night before. Here, to lighten the 'Supply' (nearly full of water), I ordered three cases of pemmican to be taken out of her, and buried on Jones's eastern island, at its south-east part, under the bank, where it falls directly off to the gravelly beach ; but before we could either get bearings or erect marks, the Eskimos were following us up, landing about a quarter of a mile to the eastward, fully armed, and bent on mischief.

"I felt very unwilling to come to extremes with these people, because if blood should be once shed, there was no knowing where the matter would end ; and as they might take an indiscriminate revenge on any weak party of Europeans who might happen to travel in that direction, I considered it better to get out of their way if possible. They appeared to be a daring set of fellows, but, as far as we were concerned, I did not feel under any apprehension for the result should it come to the worst, although they mustered very much stronger than we did, and appeared to gather much confidence from this circumstance. But we had fully observed their dread of the musket, and, as they had only seen a few, I could not help thinking they imagined we were not all armed. Those who came from Point Berens, I think, were urging them on, for 'Shovel Jack,' the name bestowed by the sailors on the man who attempted to steal the shovel, generally appeared amongst the foremost. Under these considerations we shoved off, and I thought we might attempt to get up to the main pack, distant about two miles, with quantities of drift tossing about with the gale in wild confusion between the main ice and the northern shores of the islands. Thither I did not think they would follow us, and we might get along easily under the lee of the ice. We rounded the eastern point of the island, all stringing on together, and were soon followed by two oomiaks (twenty men in each), which occasionally ranged up abreast, crossing both ahead and astern, but at

a respectful distance. The Eskimos were, of course, watching an opportunity for attack, and I fully believe they would have attempted it, if they had seen us for a moment off our guard.

“The men tugged hard at the oars for an hour without making any very great progress, and as their efforts merely seemed to fatigue them, I gave it up and bore away again, landing this time on the weather shores of the island, on the long gravelly beach extending from its eastern part, about 9.30 on Sunday morning. My reason for thus landing (although it was through a nasty surf) was, that the Eskimos might not have the slightest advantage, in the event of an attack, for their arrows would have had a better flight from a weatherly position—and they themselves before had tried to gain the point. Directly the boats were hauled up, we built a breastwork of drift timber, quantities of which were lying about, and got all ready to resist any attack they might make. The two oomiaks landed nearly about the same time, a quarter of a mile to the eastward of us; but a larger number of men had already done so at a point to the westward, placing our small band completely between two parties, mustering together, I should say, not less than one hundred strong. Two men from the eastern party, and one from the western, were now seen approaching us, making sundry deceitful demonstrations of friendship; but as soon as they saw our formidable preparations, and observed the armed sentinel on the rise, they sat quietly down under the lee of a few logs to watch us, until the patience of all seemed fairly tired out. At two P.M. they left, both bands going off to the main, and we saw them no more that day. . . .

“On the morning of the 13th, the wind had considerably abated, but was still fresh, with a dense fog, of which I took advantage to get away from our troublesome neighbours. At two A.M. we embarked and pulled directly up for the pack, reaching it at four o'clock, and making fast to a large floe close by. Here we had no firewood, spirits of wine were therefore brought into requisition as fuel, and while breakfast was preparing, I lay down in one of the boats to try and get a little sleep, and, in spite of the cold, was just dozing off when I felt myself falling. I at first thought it only a delusion, but, as the sensation continued, I roused up, and found that a large piece of ice had broken off from the main body, and had risen directly under me, and I was just in time to save myself and all that was in the boat from being turned out into the water. This misadventure completely upset my sleep for that time at all events. . . . We got our breakfast shivering with cold, and almost dripping wet with the spray and damp fog. . . .

“We had finished dinner, and were getting the things into the boats again, when we saw two oomiaks paddling up to the reef, and about forty men (fully armed) landing a quarter of a mile to the westward of us. They made towards us, discharging their arrows as they came within distance, but

by that time we were pulling off; nevertheless, some of their arrows dropped very close about us. Mr Hooper and I returned them by firing over their heads. The second time they discharged their arrows we were out of range, for they all dropped astern; and by way of farewell we fired again, our balls falling very short, and made sail, quite satisfied to have escaped all injury ourselves, while we had done nothing more than give our antagonists a good fright. The rascals, on seeing our muskets pointed at them, cut so many capers, that it was impossible for us to take aim, and directly they saw the flash, they dropped on the ground, hoping, by so doing, to avoid injury. Had they come ten minutes sooner I do not think we should have parted so scathless, for on such a small field our fire-arms would have told fearfully against them. . . .

“With a west-north-west wind we went along cheerily; passed Yarborough Inlet; ran between Chandos Point and the small island off it; passed Point Anxiety, near which the wind fell calm; and at midnight landed on a low shingly beach, extending west from the northern part of Foggy Island, tired and weary, but rid at last of our troublesome companions, after two days and a night of constant watching, wet through the greatest part of the time, with the thermometer ranging between 35° and 40°; the latter of which temperatures we considered comfortably warm.”

After a day of tracking and pulling, the expedition encamped, on the night of the 15th August, on a low headland immediately east of Point Bullen. Flaxman Island, about midway between Point Barrow and the mouth of the Mackenzie, was reached on the morning of the 16th. The eastern part of Flaxman Island is high and bold, falling off abruptly to the low gravelly beach, on which, from the lofty bank above, Pullen could see his men disposed in groups, some preparing dinner round a large fire, and others tending the boats or enjoying a nap after their morning's work. A dreary expanse of ice extended around, stretching far eastward into Camden Bay. The oppressive silence of the scene was broken only by the occasional disruption and fall of heavy masses of ice, which broke off from the main body with a reverberating sound like distant reports of artillery. On the island were many bleached remains of natives long dead. Pullen selected one perfect skull and placed it in the boat, where the sailors made use of it as a “match-tub.” On the 18th the expedition was arrested and detained for a day on a small gravelly spit off Point Martin by a gale accompanied by dense fog. The enforced delay afforded the men an interval of rest, which was much required. Their hard work was now beginning to tell upon them. Their labours usually commenced at six A.M., and continued till nine at night; and during the whole of that time they often worked in clothes that were thoroughly drenched. After such a day, and when the camp fire was lit on the shore and the tent set up, a watch was always set, and those appointed to this duty obtained little or no sleep. “Indeed,” writes Pullen, “I very

often saw them sleeping on their thwarts, and seized the opportunity, when passing close to ice, of bringing their oars in contact with it and rousing them by the shock." Few of the party were now free from colds, and one of the men was seriously ill. Meantime all the medicine that had been brought away from the "Plover" had been completely destroyed by wet. After a miserable day of rain and fog, the weather cleared on the 20th, and the boats began to make way satisfactorily. At two P.M. Pullen landed on the western part of Icy Reef, and was visited by a family of natives, the women of which wore their hair in the immense top-knots described by Franklin. These natives had neither seen nor heard anything of the missing expedition.

In the course of his voyage eastward along the Arctic shores, Lieutenant Pullen had many opportunities of noting the thievish propensities of the Eskimos, and the perfect good-humour with which, on detection, they give up the article they have stolen. These traits he thus illustrates: "The morning of the 21st set in with a very thick fog and a light north-west air. After I had examined the thermometer, which stood at 35°, I put it down outside the tent, and turned my back on it for a moment. When I looked towards the place where I had left it, I immediately missed it. Several Eskimos were about at the time—one or two very near me—and, thinking one fellow looked more satisfied than the others, I taxed him with the theft. He very quietly took the instrument from under his arm and handed it to me with a smile, thinking it a matter of course, I suppose, that he should take anything he saw about, if it could be done without detection. This, I believe, is their general idea; and it was not the only time in the course of our voyage that I missed things, and had them returned in the same way by the thief, who invariably assumed a perfect unconsciousness of any wrong. The women are the worst on these occasions; whether they are urged on by the men I cannot say, but I think so; at all events, if the husbands, having got the article away, are suspected, and taxed, their better halves are always sent for it, as in the following instance, which occurred one morning when we landed by Stokes Point. While the men were preparing breakfast, I had a pewter cup and basin filled for the purpose of performing my ablutions, but I changed my mind as to the locality where I should wash myself, in order to have a more refreshing purification at the lagoon, which was near. The kettle was filled from a part not far off, but in consequence of the muddy shores I gave up the attempt to bathe, and returned to my original place, when I missed the cup. A family had joined us on landing, and I charged them forthwith with the theft, appealing to the eldest man for the restitution of the missing article. After a little talk, he spoke to one of the women, who walked to their oomiak, which lay about two hundred yards off, and returned, bringing the missing cup, and laying it

quietly down where it had been taken from, as if nothing extraordinary had happened."

"Blessed is the country whose annals are dull." If it is so also with exploring expeditions, that of Lieutenant Pullen has, in parts at least, special claims to blessedness. After leaving Icy Reef on the 22d August until he reaches the Mackenzie, he has little of interest to relate. Each day seems to have been, to a great extent, a repetition of the preceding one. Successive storms, comfortless encampments, more or less satisfactory interviews with Eskimo families or tribes, form the too familiar matter of this portion of the narrative. The following sketch, however, of the geography, etc., of the coasts eastward from Point Barrow has a scientific importance apart from its value as testimony based upon personal observation: "The coast, from Point Barrow eastward, is low and bare, hardly ever exceeding a rise of fifteen feet, and that only in some places, until you pass Point Kay, when it attains an elevation of from sixty to seventy feet as far as the western entrance of the Mackenzie, the islands about whose mouth are low and covered with dwarf willows. Westward of Harrison's Bay the country appears to be uniformly level, consisting of one immense plain, covered with short grass and moss, and close to the coast, intersected by small lagoons of brackish water. The substratum close along the coast appears to me to be composed of nothing but ice, covered with a dark vegetable soil, from two to three feet in depth. This theory we had frequent opportunities of testing, where large masses were separated by thaw, and once in particular on Flaxman Island. Along the coast, in many places, are long, low, narrow beds of gravel and sand, forced up by the pressure of ice, inside of which we seldom found water for our boats. The Return Reef is the eastern part of a chain of the same description, extending onwards till it comes abreast of Point Beechey. The Escape Reef is coarse sand, with long wiry grass on its western part. The Lion and Reliance Reefs are islands, the northernmost, or outer one of which has at least ten feet of elevation on its sea face; and stretching west from it for about one mile is a low gravelly beach.

"On all these banks, as well as the coast eastward of Harrison's Bay, large quantities of driftwood are to be found. Currents or tides are generally influenced by the wind. About Point Barrow, in calm weather, the flood comes up from the southward, and sweeps round the point to the eastward, and the ebb retires from the eastward. About Herschel Island, and as far east as Escape Reef, there appeared to me to be a set from the northward; and it was here we encountered the heaviest sea, and found the most open water. The bay on the south-west shores of Herschel Island was the only place like a harbour I saw along the coast. The Eskimos appear the same all along the coast; the only difference I noticed was the manner in which

the women arrange their hair. All the tribes west of the Icy Reef wear it short and loose, those to the east of it have it long and tied up on the top of the head in large double bows, which, by Sir J. Franklin, are called top-knots. The greatest number we saw together were congregated near Point Beechey, and this was the party with whom we had the brush."

On August 30th the expedition entered the Mackenzie, but progress, by tracking along the banks, was exceedingly tedious, as the wind was dead against the boats, and a two-knot current offered additional opposition. All hands, however, were in good spirits, and even the sick man brightened and rejoiced at the thought of leaving the dreary and desolate coast. "Our general course," writes Pullen, "was about south-west, till at nine A.M. we got into a broader stream trending east-south-east, and from this point we may fairly consider the ascent of the river to have commenced." Winter had now fairly set in. Snow continued to fall in successive heavy showers, and the wind swept over the river in gusts. The cold was intense, and Pullen and his men, who, while the wind was favourable, sat cramped up in the boats, felt it very severely, and were often compelled to steer for the shore and have a brisk run on land to warm themselves. The higher parts of the country were now covered with snow; "but," says Pullen, with scarcely perfect scientific accuracy, "we had this consolation—we were making a southerly advance, and approaching a somewhat milder climate." On the afternoon of the 3d September, Pullen entered Peel River. On the morning of the 5th he saw on the right bank of the river "something that looked like a congregation of huts; but, on a nearer approach, when we got clear of the influence of mirage, I perceived that it was something more substantial, assuming quite the shape of a strong and permanent building. Shortly after coming round the point of a spit, there appeared a boat, pulled by white people, accompanied by a small fleet of canoes, and as we closed with the former, we were welcomed by a Mr Hardisty, the gentlemen in charge of the Hudson's Bay post, who transferred himself to our boat. At ten A.M. we landed at the fort, with hearts full of gratitude to the God of all mercies for His protection in our long and perilous boat voyage."

But all difficulties had not yet been surmounted, for, on making inquiries, Pullen was informed that it would be impossible for Mr Hardisty to maintain the whole of his party at the fort during the winter. He could provide for five or six of the exploring party, but the others would require to go on to Fort Good Hope, and winter either there, or at Fort Norman, or Fort Simpson. Pullen accordingly left Mr Hooper with five men at the fort, and taking with him the remainder of the men, and twenty days' provisions, he set sail in the "Logan" and "Supply." Their course was down Peel River, a distance of ten miles; they then entered a more easterly branch, and at about seven A.M. on September 7th, they came out upon the broad

bosom of the Mackenzie, six or seven miles to the westward of Point Separation.

“At 12.30,” writes Pullen, concluding the narrative of his explorations for 1849, “we landed on Point Separation, and opened Sir John Richardson’s *cache*, in which were deposited a large case of pemmican, and a note dated July 31st, 1848; with these I placed three small cases (equal to the large one in weight), and a note of my proceedings—closed all up again, and proceeded, crossing to the right bank, and commenced tracking up the river. Sir John’s note gave me to understand that we were to go on to Fort Simpson and winter on the Great Slave Lake, and that Fort Good Hope might be reached by tracking in five days. Until our arrival at the Peel station (Fort M’Pherson), I had been labouring under the idea that it would take us only a day and a half, for this time was specified in my orders. After these proceedings, we stepped out with a good will over a shingly beach; but how long the men would be able to keep up the pace they were now at was a subject of anxious speculation to me. I did not expect a long continuance of it, as the work is of a nature to which they were utterly unaccustomed; and, besides, they were equipped with heavy sea-boots, an article quite unsuitable for walking in during any long period. On the morning of the 11th, I determined on abandoning the ‘Supply’ (oomiak), as she was impeding our progress very much. Sorry I was to do so, for I had hoped to carry her to England as a specimen of the naval architecture of the western Eskimos, and for the good service she had rendered us. But there was no help for it, and I had yet to learn that we could take none of our boats much farther with us, as they were not adapted for the river work. The ‘Supply’ was certainly a great drag on the trackers, who were beginning to feel the work terribly, for the beach frequently and for long distances no longer consisted now of light shingle, as we had first found it, but was composed of heavy round stones, which were the source of continued annoyance and of frequent heavy falls to the sailors as they marched on in their cumbrous boots. The skin of the oomiak was stripped off, cut into three pieces, and, together with other stores, stowed in the ‘Logan,’ making her lie very deep in the water, particularly when nine men got into her, but then she was lighter on the line, and we certainly got on faster; and as a strong breeze now sprang up and continued all day, our distance from our destined goal was considerably shortened by evening, when we stopped to encamp. While the wind continued, we dared not keep any distance from the shore, for fear of serious consequence to our boat in her loaded state, for the strong breeze against the downward current raised a sea quite heavy enough to overwhelm a much larger craft than ours, and not a little alarmed our pilot (an Orkneyman), who styled it ‘very wrothy.’ This we might have avoided, certainly, if we had left the skin of the ‘Supply’ behind; but,

considering that it would make good tracking shoes for the men, I did not like sacrificing so useful an article while there was a possibility of taking it on. On the 14th we met the Company's boats on their way to the Peel with winter supplies, and also Mr Peers, who was to supersede Mr Hardisty on his arrival. I informed that gentleman of the number of men I had left at his post, and the quantity of provision with them, hoping they would not cause any distress during the time they might remain. Mr Peers's reply gave me no reason to think it would be necessary to send them to another post. He told me, also, that the river would close up in three weeks; we then parted, and the same evening I arrived at 6.30 at Fort Good Hope. Here we were cordially welcomed by Mr M'Beath, the gentleman in charge; and as all hands turned out to see the strangers, there was quite a formidable show of dusky faces on the bank, the fort being particularly full of Indians at the time, waiting for their winter supply of powder, shot, goods, etc."

CHAPTER IV.

LIEUTENANT PULLEN'S NARRATIVE CONTINUED.

LIEUTENANT PULLEN remained at Fort Good Hope, on the Mackenzie River, until the morning of the 17th September, when, having obtained one of the Company's boats in exchange for the "Logan," which was not well adapted for river navigation, he recommenced the ascent of the great stream of North-Western America, toward the more inland posts of the Hudson's Bay Company. On the 22d he reached the point at which the waters of Bear Lake River fall into the Mackenzie. He spent half an hour at the famous "burning banks," where in many places he observed strata of "wood coal in a state of combustion." Above these warm banks were natural raspberry and gooseberry beds bearing abundant fruit, which, to the explorers, nauseated with stale pemmican, were a great treat. Next day Pullen reached Fort Norman, where he replenished his scanty stores with a supply of pemmican, thirty pounds of dried goats' flesh, and a bag of flour. Continuing his ascent of the river, he reached Fort Simpson, where he received a warm welcome from Dr Rae, who was then in charge of the fort. He had now completed his voyage, and though he had not had the good fortune to fall in with the missing voyagers, he had the satisfaction of knowing that he had succeeded in carrying out the instructions of the Admiralty. In thirty-four days he had searched the Arctic shores from Wainwright Inlet to the mouth of the Mackenzie River, a distance of 692 miles, while the ascent from the mouth of the river to Fort Simpson, a distance of 800 miles, had occupied him thirty-six days. In all, since leaving the "Plover," he had traversed 1492 miles in seventy days.

It was found that the whole of the exploring party could not be maintained throughout the winter at Fort Simpson, and Pullen, on the 10th October, sent all of them off, except two, to the Company's fishing station on Great Bear Lake. On the 29th the navigation of the river closed, the whole country around was mantled with snow, fur garments were given out to the inmates of Fort Simpson, and large fires were kept up in every room of that cheerless station. The winter was very cold and very dull, and it

was not until the 28th April (1850) that the first wild goose of the approaching season flew over Fort Simpson from the south, and gladdened its inmates with the intelligence that an early spring was at hand. In the beginning of May, great flocks of geese and ducks passed the station, flying northward. Many were shot, and there were "great doings" in the kitchen once more. The ice of the Mackenzie broke up on the 11th. "All was now bustle and activity," says Pullen. "Boats were being fitted out, furs pressed, and every one was fully employed in preparing for the transport of goods to the Methy Portage, and thence to York Factory, for shipment to England. On the 20th of May, Mr Rae went off with one boat to Forts Norman and Good Hope to bring up the furs that were to go out with the next brigade of boats, and which we were to accompany on our way to England." But the explorer was not destined to see England and home so soon as he expected.

On the 1st June, Lieutenant Hooper, Pullen's first officer, arrived from the fishing station of New Fort Franklin on Great Bear Lake, where he and the greater number of the men of the expedition had spent the winter. This young officer, whose name is invested with a peculiar interest, on account of his services, his fine talents, and his premature and melancholy fate, demands some passing notice here. W. H. Hooper was born in 1826, entered the navy at an early age, and joined the "Plover" as mate under Moore in 1849, and wintered in that vessel in an inlet of the Gulf of Anadyr, near the extreme north-east point (East Cape) of the Asiatic continent. His experiences among the Tchutski tribes who inhabit this region, are ably recorded in his most readable work, "Ten Months among the Tents of the Tuski." The special interest of this singularly fresh and vigorously-written volume is due to the circumstance that it describes the appearance, manners, customs, etc., of "a people of whom less is known than any on the face of the habitable globe, if we except, perhaps, some of the tribes in the interior of Africa." While sojourning among the Tuski or Tchutski, the principal object of the expedition on which the "Plover" was engaged—the search for Sir John Franklin—was never for a moment forgotten by the officers of that vessel; but, imprisoned as they were in Emma Harbour, south-west of Cape Tchutskoi (lat. about 64° 30'), and still many miles from Behring Strait, they had no opportunity of prosecuting the search. We dare not, therefore, linger with Hooper among the curious tents of the Tuski. In the summer of 1849 the young officer was appointed to the command of the "Plover's" cutter, in the boat expedition under Lieutenant Pullen from Icy Cape to the Mackenzie River. He afterwards passed two successive winters at the stations of the Hudson's Bay Company, and in these bleak forts he contracted an illness, of which he died in 1853, at the early age of twenty-seven.

Lieutenant Hooper spent the winter of 1849-50 at the fishing station of New Fort Franklin, a wretched log hut near the Fort Franklin on Bear Lake, where Sir John wintered in 1826-27. At this miserable station Hooper spent much of his time in observing the almost nightly displays of the aurora. This singular and beautiful appearance, "the most gorgeous as well as most wonderful of northern, and perhaps of any other, phenomena," seems to have engaged the constant attention and the most earnest speculation of the young officer. Probably no predecessor in Arctic exploration studied the subject with greater zeal than Hooper; certainly no other officer ever succeeded in representing the aurora by an equal number of curious and suggestive drawings. For these reasons, therefore, Lieutenant Hooper deserves to be heard on this subject, on which, besides, he writes, in his accustomed vigorous and picturesque style: "A beautiful aurora," he writes, in his journal, on the 9th December 1849, "appeared in arch from north-north-east to north-north-west, and gradually assumed an appearance similar to that produced by the aurora of the 7th, in broken vertical rays, coruscating towards the zenith. The stars were visible in myriads and very bright. At eleven P.M. I returned from viewing, and listening too, to the aurora, which then presented a gorgeous spectacle. It had shifted from its position, and at that hour covered one-half of the heavens, from east through south to west—its beauty was of so exquisite a nature as to be indescribable, but I will attempt to give some idea of its position and main features. Orion then bore south-south-west, and, on each side of that constellation, to about four points, rays were converging very nearly to the zenith, at perfectly regular distances, and in form reminding one of the lines of longitude on a globe, and like these they were divided just below the zenith. Around and about them were wreaths and rolls, straight lines and curves, dense columns and scattered outposts of the luminous fluid, never still for a moment, but waving and rolling, advancing and retiring, folding and unfolding, rapid as thought and changeful as a dream. In its eternal change it was like the fickle kaleidoscope, ever presenting some new appearance, never returning to its former shape, and yet always as wondrous in beauty, or, if possible, more so, than before it altered its appearance. Some of the flying lines were drawn up or let down like the curtain in a theatre, and they expanded and contracted incessantly. Others again looked like heavy breakers, curling and turning under and about. There was one large mass, a perfect blaze of light, which seemed not to be more than twenty feet above me; others with less body appeared to be far away. This night I was also able, by personal observation, to settle a point long doubted by me. I have *heard* the aurora, *not once*, but *many times*; not faintly and indistinctly, but loudly and unmistakably—now from this quarter, now from that, now from a point on high, at another time from a point low down. At first it seemed

to me to resemble the sound of a field of ice cracking, then it was like the distant stroke of an axe, then like the sound of pile-driving, and at last like the whirring of a cannon-shot, when heard from a short distance. At one time three sounds of this kind followed in rapid succession, and I thought I could see the mass whence the noise proceeded, trembling and vibrating far above me. The night was intensely cold; the sky perfectly clear; the stars shining as brilliantly through the masses of luminous fluid, as in that part of the heavens which was unoccupied by the aurora—the wind was from north-north-west. I have read in other northern voyages that the sound produced by the aurora resembles the cracking of a whip, but I heard nothing like this to-night. In a few minutes the character of the phenomenon changed; the tremors and rays all disappeared, and nothing was presented to the view but a long arch from east-south-east to south-west, banking in a rising mass of clouds; but I still heard occasionally the sounds as before, much subdued indeed, and less frequent now.”

Thus the question of whether auroral displays are accompanied by sound seems settled, and Wordsworth is justified—

“ In sleep I heard the northern gleams ;
The stars were mingled with my dreams :
In sleep did I behold the skies,
I saw the crackling flashes drive
And yet they are upon my eyes.”

But it must be remembered that the description of the aurora given above, from Hooper's *manuscript* journal, was written early in the winter season, and before he was sufficiently familiar with the sounds of the Arctic winter to be able to attribute all of them to their true causes. In his unpublished journal the following passage occurs, under the heading 12th December, or three days after the great auroral display above described: “The wind was from north-west. The aurora at night was very brilliant. I again heard the cracking sounds proceeding from it; *and though our fisherman insisted it was the cracking of the ice on Bear Lake, I retired to rest, perfectly convinced I was in the right.* [13th December] I found this day that the fisherman was quite right, for I heard in broad daylight the sounds which I had imagined to proceed from the aurora. I now am quite convinced that they were caused by the ice cracking.” Again, in the published narrative of his sojourn at the Hudson's Bay Company's forts, which appears as a pendant to the writer's “Ten Months among the Tents of the Tuski,” the following passage, written after more extended experience and mature reflection, occurs, in reference to the display of the 9th December: “On this occasion I fancied that I *heard* the aurora, and so much was judgment misled by imagination, that I thought I saw the masses vibrating after con-

tact, when, in fact, the noise I heard was indubitably produced by the cracking of the ice on the lake, as I afterwards became assured of. . . . On some occasions all the colours of the rainbow were displayed by turns, each visible but for an instant, then succeeded by another hue. Vast, irregular, ever-changing fringe-like lines—at one moment of an exquisite violet, the next of a grass-green tint—engaged and delighted the eye. Those above named were the predominating colours, but all others, in every variety of shade and brilliancy, were evolved. A scene of sublime and awful magnificence!”

It has been already stated that Lieutenant Hooper joined Lieutenant Pullen at Fort Simpson on the 1st June. Here the expedition remained till the 20th of the same month, on which the “Mackenzie River Brigade” of boats, from Fort Good Hope and the posts situated lower down the river, and carrying the annual cargo of furs, left Fort Simpson to proceed up the Mackenzie to Methy Portage, and thence to York Factory, for England. The “Plover’s” boat expedition set out to accompany this brigade in its ascent of the Mackenzie, and officers and men expected to have a speedy journey to England by way of Hudson’s Bay. But a surprise was in store for them. “On the 25th of June,” writes Hooper, “when near Great Slave Lake, we were met by two Indians in a canoe, who proved to be bearers of an ‘extraordinary express’ from England, which contained Mr Pullen’s commission as commander, and the sanction of the Admiralty to renewed prosecution of the search for Sir John Franklin’s party, if Captain Pullen should consider it practicable. Very little consideration was necessary on the subject, and after consultation with Dr Rae, the decision was speedily arrived at to return to the sea-coast. “We reached the fishing station called Big Island, at the entrance of Great Slave Lake, where some of our party had wintered, next day, and attempted to reach Fort Resolution to obtain a supply of pemmican, but the ice in the lake checked our progress, and Captain Pullen decided on returning at once to Fort Simpson to prepare for the second trip. On the 29th, accordingly, we bade farewell to Dr Rae and his brigade, and retraced our way to Fort Simpson, which was reached on the 3d of July.” Of the boats of Pullen’s expedition, only one, the “Logan,” was now available; but a new craft, forty feet long and nine feet broad, and which was named the “Try Again,” was furnished by the Company. On the 11th July, the explorers set out from Fort Simpson, and pushed on down the Mackenzie in the “Logan” and “Try Again.” Fort Good Hope was reached on the 16th, the Arctic circle was crossed on the night of the 17th, and on the 18th the expedition reached Point Separation, near the mouth of the river, and landed to take up a store of pemmican that had been left there by Sir John Richardson in 1848. Garry Island, in the Arctic Sea, was reached at mid-day on the 20th, “and,” writes Captain Pullen, “while

dinner was preparing, I walked to the highest point of the island, the soil of which was pretty profusely strewed with flowers, and got a good view round." The prospect, however, was not encouraging. It was Pullen's aim to sail along the Arctic shores in a westward direction to about the mouth of the Coppermine, and from this quarter to explore the shores of Banks Land and Wollaston Land, on which, he surmised, Franklin and his party might probably be found. But the route westward, he now perceived, was closed by an unbroken barrier of ice, and progress was, in the meantime, impossible. Hitherto the weather had been exceedingly hot, and the mosquitoes and gad-flies correspondingly tormenting. On the 20th, the temperature was 84° *in the shade*, and the insects, clouds of which darkened the air, were insatiable. "Apart from the great annoyance of the mosquitoes," writes Hooper, on this day of tropical warmth, "it was curious to notice one of these little torments settle upon one's skin, and how its shrunk carcase distended to quadruple its original size as it gorged itself with blood, the crimson fluid showing plainly beneath, until at last it became almost incapable of flight. Each one of these tiny creatures will extract a large drop of blood, so that, where they are numerous, one may suffer considerably by their homœopathic phlebotomy as well as by the distressing irritation they produce."

Pelly Island was reached on the evening of the 22d. On Kendall Island, on which the party encamped on the night of the 23d, the Indian hunters who had been hired to accompany the expedition and keep it provided with game, brought down a deer, which, when dressed, afforded 160 pounds of good meat. Another deer was knocked over on Richard Island on the 24th, and for a brief interval, at least, the explorers were gratified by having venison steaks in place of the usual comfortless pemmican and cold water. After three days' detention on the marshy beach of Hutchinson's Bay, the party got away on the 29th; but the day was spent in a vain endeavour to reach the open sea over fields of ice, which lay in flat pieces several acres in extent and seven or eight feet thick, or rose in masses twenty or thirty feet high, like the ruins of a town of ice. In crossing these icy fields, the party suffered much from cold. "It is difficult," exclaims Hooper, "for inexperience to conceive how greatly chilled the wind becomes in its passage over ice! Here, in the month of July, a south breeze, which should have been the softest and warmest exhalation of Æolus, stagnated the blood by its frost-becharged breath. . . . It was hoped," continues the same writer, "that, the season being favourable, the expedition descending the Mackenzie would reach the sea about the 23d of July, and gain Cape Bathurst in a few days. Thence it was intended to strike right across for Banks Land, a distance of rather more than 300 miles. This accomplished, future operations would have to depend upon the contingencies then arising. It was not our good fortune to achieve this grand undertaking. The season was, as regarded ourselves,

most unfortunate. A succession of northerly winds drove the ice down upon the shores, along which we had to pass, and our days were frittered away in vexatious detentions or useless toil amongst rugged ice masses or shallow waters."

In the neighbourhood of Cape Dalhousie ice was seen on the 3d August, piled up in hummocks from fifty to sixty feet high. On the evening of the 6th the party had reached Maitland Island. On the 8th the voyagers crossed Harrowby Bay, and in the afternoon, when approaching Cape Bathurst, they came within sight of an Eskimo village of a dozen tents. Immediately a score of kayaks and a number of oomiaks pushed off from shore—the women in the latter shouting and vociferating in the merriest and most friendly manner. "We were quite overwhelmed," writes Hooper, "by their amicable demonstrations. The single boats hung upon the gunwales of our craft, the oomiaks got athwart our bows, and the crews of both threw in meat, fish, skins, dresses, or whatever else they possessed, pell-mell. These were, however, all rejected," and nothing received except in barter for knives, needles, and other British goods. Landing here, the explorers enjoyed a plenteous and a peaceable dinner, which was heartily enjoyed by all, and by no one more than Captain Pullen. "I have now seen more than twenty-three years of a sailor's life," writes the gallant captain, "and can safely say, I never was engaged in such laborious and disheartening work as we went through" during the few days prior to reaching the vicinity of Cape Bathurst. On the evening of the 8th August the party encamped upon the larger of the Baillie Islands. Here they found the shores hampered with heavy ice, which they learned from the Eskimos would completely close up the passage to the eastward. On the 9th they pushed along the shore for some distance, until progress was finally checked by rugged, massive, and compact ice. The captain was therefore obliged to give orders to land and encamp anew. In the afternoon a woman, running into camp, brought news of a huge bear which she had seen on the higher ground above the beach. Of course the voyagers, as well as the Eskimos who had followed them to their encampment, immediately sprang up to go in chase. As this hunt after Bruin illustrates the ingenuity and bravery of the Eskimos, it is considered proper to quote the description of it given by Lieutenant Hooper, who himself assisted at the capture: "The brute was discovered on a huge mass of ice, which, with others, had grounded at some distance from the beach; one party started in the 'Logan' to cut off his retreat by sea; another, which I joined, made for the summit of the bank, which we hoped he would endeavour to ascend. First blood was drawn by our party; a ball from my fowling-piece struck him in the shoulder, and he fell for an instant on the ice and began to suck his paw, which made us think it was there he had been wounded. Speedily rising, he ran on along the hummock, taking to the water, and climbing the sides of the masses of

ice with the utmost indifference and ease. Our hunters—Indians are always excellent marksmen—now paid him some attention; they hit him several times, but did not succeed in turning him. He attempted at last to swim to seaward, and would doubtless have succeeded but for a new opponent. One of the Eskimos, launching his kayak, followed the bear, and at close proximity discharged arrow after arrow into his body. This was the most exciting part of the hunt. Each time that an arrow pierced his body, the poor animal seized the missile, if within reach, in his teeth, and strove to wrench it from the wound, generally, however, breaking it short. Then would it turn fiercely on its persecutor, who, skilfully manœuvring his light boat, hung at two or three yards distance only on his rear; so close were they indeed, that the man deliberately splashed water with his double-bladed paddle into poor Bruin's face, just backing gently to be clear of his paws, a single stroke from which would quite have reversed the fortune of the combat. When, after a hunt which lasted about four hours, the animal received its final death-stroke by a ball through the brain from the 'Logan,' he was stuck all over with arrows, and looked like a barbecued pig. By the laws of savage venery, first blood always decides the captor, and the Eskimo readily recognised the rule in the present instance, indicating that the prize belonged to the Kabloonan. Of course the carcass was divided, but I stipulated for and obtained the skin, which I still possess as a trophy. An hour afterwards I ate a bear steak. The Eskimo who had so importantly contributed to the capture, was rewarded with a large broad dagger and some other trifling presents, and was delighted with his good fortune." It is not at all uncommon for an Eskimo, single-handed and unarmed, except with the large knife which is his favourite weapon for encounters at close quarters, to attack the bear on his own ground. In such a terrific battle, man is almost invariably victorious over brute, though he seldom escapes without receiving fearful wounds.

Pushing off from the largest of the Baillie Islands on the 10th, Captain Pullen endeavoured to beat up for Cape Bathurst. With great difficulty, the boats were worked through narrow passages, between vast masses of ice, to the cape. Here all farther progress was seen to be impossible.

"The ice was here, the ice was there,
The ice was all around."

It extended all round Cape Bathurst, and far to seaward, "in masses heaped tumultuously, sparkling and shimmering in the sunshine, each crystallised point evolving hues of the prism. Not a lane, not a breach appeared—a barrier of stone lay between us and our desired route." Here Pullen remained several days, but no change taking place in the condition of the vast icy barrier that intervened between him and the seas he had

hoped to reach to the eastward, he at last, with the greatest regret and reluctance, gave orders to put about and return.

While the expedition waited at Cape Bathurst, two of the Indian hunters were sent away on the 12th to look for a deer. They failed to come into camp at night, and it was feared they had been attacked and killed by their traditional enemies, the Eskimos. Search parties were sent out on their track, but nothing was seen of them till late on the afternoon of the 14th. They staggered into the camp, shoeless, footsore, faint, and famishing. They had broken the leg of a deer, and in the heat of the pursuit of the wounded game had lost their way. They were told that their white allies were on the point of setting out on the return journey without them, and they were asked what they should have done in such a case. "We should have dug a hole," said they, "and lain down in it and died."

With the details of the return journey of this unsuccessful expedition which, sent out to seek for Sir John Franklin, failed to reach even the borders of the region in which he was supposed to have been beset, it would be uninteresting and profitless to concern ourselves. Like the outward trip, the return journey was one of continuous discomfort and hard labour. "Gales, rain, snow, shallow water, heavy ice, a freezing temperature, and wretched food—these," says Hooper, "tell our tale comprehensively." On the 23d August the voyagers passed three islands, which they had discovered in the easternmost channel of the Mackenzie on the outward voyage, and named them respectively Beaufort, Hooper, and Pullen Islands. On the 31st, they fairly entered the Mackenzie, reached Fort M'Pherson on the 7th September, Fort Good Hope on the 17th, and on the 5th October, Fort Simpson, where Captain Pullen, Lieutenant Hooper, and two marines remained during the winter, while the remainder of the party went on inland to the fishing station on Great Slave Lake.

After passing a dull and uneventful winter at Fort Simpson, Pullen and Hooper set out from that post on the 5th June 1851, and ascended the Mackenzie by easy stages. On the 20th June, they reached Fort Resolution, the neatest and cleanest establishment they had yet seen, and on the 28th August reached York Factory, whence they sailed for England (9th September) in one of the Hudson's Bay Company's ships. They arrived in England just in time to see the last of the Great Exhibition, where they themselves took no mean rank among the numberless objects of interest.

CHAPTER V.

RICHARDSON'S BOAT-VOYAGE THROUGH RUPERT'S LAND AND THE ARCTIC SEA.

THE second search expedition sent out by the British Government, with the object of rescuing Sir John Franklin and his party, was that commanded by Sir John Richardson, the faithful companion of Franklin in his earlier expeditions. Dr Rae, a narrative of whose brilliantly successful exploration of the previously unknown shores of Boothia Gulf has already appeared in these pages, was selected to accompany Richardson, and to sail under his orders. Suitable stores, including pemmican, flour, sugar, tea, bacon, etc., were prepared for the expedition early in 1847; four boats were specially built for it at Portsmouth and Gosport, and five seamen and fifteen sappers and miners—joiners and blacksmiths for the most part—were selected from a number of volunteers to man the boats. Stores, boats, and men sailed from the Thames in two of the Hudson's Bay Company's ships on the 15th June 1847. As it was just possible that news of the missing expedition might arrive in England before the close of that year, Richardson and Rae were ordered not to leave England till the spring of 1848, when, travelling rapidly, it was expected they would overtake the men and stores at some of the Company's forts in Rupert's Land, as the territory belonging to the famous corporation of fur traders was named.

The two officers of the expedition left England, on the 25th March 1848, by the mail packet "Hibernia," and arrived in New York on the 10th April. Travelling with all possible expedition, they reached Saut Sainte Marie, at the outlet of Lake Superior, on the 29th April, and Cumberland House, on the Saskatchewan River, a distance from New York of 2880 miles, on the 13th June. On the following day the travellers set out from Cumberland House, and on the 28th they reached Methy Portage, where they overtook Mr Bell, one of the Company's officers, who had been appointed to conduct the men, stores, and boats of the expedition as far in advance as possible. The descent of the Clear Water River was commenced on the 5th July by Dr Richardson in his own boats, and accompanied by his own men. Athabasca Lake was entered on July 11th, and in the evening the expedition

reached Fort Chepewyan. From this post the boats proceeded north by Slave River, and the explorers entered Great Slave Lake on the morning of the 17th, and arrived at Fort Resolution before mid-day. The expedition reached Fort Simpson, on the Mackenzie River, on the 22d July, and Fort Norman on the 26th. On the 31st, the expedition stopped at Point Separation, where Richardson made a *cache* of a case of pemmican, to be used in case of necessity by the boat expedition of the "Plover," under Pullen. "We dug the pit," says Richardson, "at the distance of ten feet from the best grown tree on the point, and placed in it, along with the pemmican, a bottle containing a memorandum of the objects of the expedition, and such information respecting the Company's post as I judged would be useful to the boat party of the 'Plover,' should they reach this river. The lower branches of the tree were lopped off, a part of its trunk denuded of bark, and a broad arrow painted thereon with red paint." As we have seen in the preceding chapter, the *cache* was discovered, and the pemmican obtained by those for whom it was intended.

The actual work of Richardson's expedition only commenced after his boats had reached the mouth of the Mackenzie, and having arrived at the estuary of that great river, he endeavoured to stimulate his crews "to an active look-out, by promising ten pounds to the first man who should announce the discovery ships." The actual searching voyage eastward along the Arctic coasts was commenced early on the morning of the 3d August. On that day a large number of Eskimos came off from shore in their kayaks and oomiaks. They were predatory and mischievous as usual, and would have been dangerous had they not been overawed by the levelled muskets of the Europeans. On being examined respecting the discovery ships, they one and all denied having ever seen any white people, or heard of any vessels having been on their coasts. Richardson's description of the Eskimos is graphic, brief, and well-informed. Its insertion here may save recapitulation at another time: "The Eskimos are essentially a littoral people, and inhabit nearly five thousand miles of sea-board, from the Straits of Belleisle to the Peninsula of Alaska, not taking into the measurement the various indentations of the coast line, nor including West and East Greenland, in which latter locality they make their nearest approach to the western coasts of the old world. Throughout the linear range here indicated, there is no material change in their language, nor any variation beyond what would be esteemed in England a mere provincialism. Albert (Richardson's interpreter), who was born on the East Main, or western shore of James's Bay, had no great difficulty in understanding and making himself understood by the Eskimos of the estuary of the Mackenzie, though by the nearest coast line the distance between the two localities is at least two thousand five hundred miles. Traces of their encampments have been discovered as far north in the New

World as Europeans have hitherto penetrated, and their capability of inhabiting these hyperborean regions is essentially owing to their consuming blubber for food and fuel, and their invention of the use of ice and snow as building materials. Though they employ drift timber when it is available, they can do without it, and can supply its place in the formation of their weapons, sledges, and boat-frames, wholly by the teeth and bones of whales, morses, and other sea animals. The habit of associating in numbers for the chase of the whale has sown among them the elements of civilisation; and such of them as have been taken into the Company's service at the fur posts fall readily into the ways of their white associates, and are more industrious, handy, and intelligent, than the Indians. The few interpreters of the nation that I have been acquainted with (four in all) were strictly honest and adhered rigidly to the truth; and I have every reason to believe that within their own community the rights of property are held in great respect, even the hunting-grounds of families being kept sacred. Yet their covetousness of the property of strangers, and their dexterity in thieving, are remarkable, and they seem to have most of the vices as well as the virtues of the Norwegian vikings. Their personal bravery is conspicuous, and they are the only native nation on the North American continent who oppose their enemies face to face in open fight. Instead of flying, like the northern Indians, on the sight of a stranger, they did not scruple, in parties of two or three, to come off to our boats and enter into barter, and never on any occasion showed the least disposition to yield anything belonging to them through fear."

By the 8th of August the expedition had crept laboriously along the Arctic shores eastward to Cape Brown, in longitude about 130° W. Landing near the cape to prepare breakfast, the voyagers encountered four Eskimos, of whom the usual inquiries were made, with the usual result. "These people," says Richardson, "like the other parties we had previously communicated with, declared that no large ships nor boats had been seen on their coasts, and that we were the first white men they had ever beheld. I could not discover that any remembrance of my visit to their shores twenty-three years previously existed among any of the parties I saw on the present voyage, though I never failed to question them closely on the subject." Pushing on on the following day, Richardson crossed Liverpool Bay and encamped under the frozen cliffs of Cape Maitland on the night of the 9th August. On the 10th the explorers held on their course between Baillie Islands and the mainland, and at night, finding no suitable landing-place either on the islands or the main, they slept in their boats, which were anchored about a mile from the beach. Early on the morning of the 11th, the voyage was resumed under the guidance of a considerable company of the Eskimos of Cape Bathurst, and Richardson, after crossing a bar on which

there were from four to five fathoms water, passed suddenly from muddy water "into a green sea, in which," says the commander, "we had no bottom with the land line." Proceeding south-east from Cape Bathurst, Richardson observed that the crest of the high bank rose to the height of about two hundred and fifty feet. These high banks are continued along the shore from Cape Bathurst to the bottom of Franklin Bay, where they recede from the coast to form the base of an even-backed line of hills of from four to five hundred feet high, called the Melville Range. Cape Parry was reached on the 13th, and on Cocked-hat Point a case of pemmican, with a letter of instructions for the use and information of the missing expedition, were deposited on the 14th. Dr Rae, that "mighty hunter," killed a roe reindeer in excellent condition on the morning of the 17th, and rejoiced the hearts of his comrades with fresh steaks for breakfast. Again on the 19th Rae brought in two fine reindeer. Several seals were also killed; but as none of the men would touch the dark flesh of the seals so long as venison could be had, Richardson gave instructions that no more seals should be shot. On the 20th Rae killed and brought in a fine buck reindeer, and the frequency with which these splendid animals were knocked over constrains Richardson to exclaim, that "in this quarter a skilful hunter like Mr Rae could supply the whole party with venison without any loss of time." On the 21st, the expedition having then passed to the eastward of Hoppner River, the explorers obtained their first view of the cheerless shores of Wollaston Land, the summits as well as the ravines of which were covered with snow. Could the explorers only reach these white shores gleaming away on the north, something might yet be done, even in this rapidly-waning summer season, to throw light upon the fate of the lost ships! But the channel between the main and Wollaston Land was filled with ice, and this land of promise was unapproachable.

On the 23d the weather darkened threateningly, a haze closed over the boats, heavy showers fell, and a water-spout, herald of a coming storm, was seen on shore. At five p.m. the storm came on, "and," says Richardson, "we were compelled to reduce our canvas to the goose-wing of the mainsail, under which we scudded for an hour, until, entering among large masses of ice, about two miles from Point Cockburn, we found shelter under some pieces that had grounded. The shore was too flat to admit of our bringing the boats near enough to encamp; the ice-cold sea-water chilled the men as they waded to and fro; there was no drift timber on the beach; and we passed a cold and cheerless night in the boats, the wind being too strong to admit of our raising any kind of shelter. I afterwards learned," continues Richardson, "that this storm began at Fort Simpson at six a.m. on the 23d, or, making allowance for the difference of longitude, about thirteen hours and a half later. It commenced on the Mackenzie by the wind

changing from north-east to north-west, and the sky did not clear up till nine in the morning of the 24th. At the same date an earthquake occurred in the West India islands, which did much damage." The description of this storm in Richardson's journal is noteworthy, as proving that this explorer, who was also an accomplished scholar and a man of great scientific acquirement, was the first traveller who prosecuted the study of meteorology in the Arctic regions, upon the broader modern basis of comparing the meteorological conditions of different localities, at a certain given time—and thus tracing the courses of storms—which enables us in our own day to foretell the approach of the tempest and to secure ourselves against its ravages.

Continuing to force his way along the main shore in the Dolphin and Union Strait, which he himself had discovered in 1825-27, Richardson saw with regret, on the morning of the 26th, that a frosty night had covered the sea and ponds with young ice, and had cemented all the floes into one solid field. During this day, spent in cutting through tongues of ice, dragging the boats over floes, etc., only five miles were made. On the following the distance gained was only three and a half miles. It was now determined to lighten the men's labours, by depositing one of the boats with her cargo on the shore. Accordingly, a deposit of several cases of pemmican, an arm-chest, and several other things that encumbered the boats, was made on the 27th, on a flat shelf of rock distant about twelve miles from Cape Krusenstern. From this date progress by water was almost impracticable. On the 29th Cape Krusenstern was reached, and the 30th was spent in the encampment on its shore, watching for a change of weather, which fortunately took place at four P.M., when a channel opened in the ice, through which the boats made way round the cape. Cape Hearne was reached on the 31st, and the party encamped that night about eight miles north-east of Cape Kendall. Richardson's boats were now much shattered by the rough work among the floes, and a survey from the high ground above his encampment proved that all the lanes were frozen up. He therefore determined to leave his boats here, and at once commence the homeward march by the Coppermine River to Fort Confidence—his winter quarters. The explorer's reflections on the necessity for terminating his boat-voyage here, were not of the pleasantest description. "The unavoidable conclusion of our sea voyage," he writes, "while still at some distance from the Coppermine River, was contemplated by me, and I believe by every individual of the party, with great regret. I had hoped that, by conveying the boats and stores up the Coppermine River beyond the range of the Eskimos, we could deposit them in a place of safety, to be available for a voyage to Wollaston Land next summer. But abandoned as they must now be on the coast, we could not expect that they would escape the searches of the hunting parties,

who would follow up our footmarks, and who were certain to break up the boats to obtain their copper fastenings. The unusual tardiness of the spring, and our unexpected delay at Methy Portage for want of horses, caused our arrival on the Arctic coast to be considerably later than I had in secret anticipated, though it differed little from the date I had thought it prudent to mention, when asked to fix a probable time. Even a few days, so unimportant in a year's voyage elsewhere, are of vital consequence in a boat navigation to the eastward of Cape Parry, where six weeks of summer is all that can be reckoned upon. Short, however, as the summer proved to be, neither that nor our tardy commencement of the sea-voyage would have prevented me from coasting the south shore of Wollaston Land, and examining it carefully, could I have reached it; for the distance to be performed would have been but little increased by doing so. The sole hindrance to my crossing Dolphin and Union Strait was the impracticable condition of the close-packed drift-ice."

Meantime preparations were hurried on for the return march to winter quarters. All necessary stores were divided into packages weighing from sixty to seventy pounds, and distributed among the men. Six "pieces" of pemmican were buried under a limestone cliff, and the position marked. The boats were abandoned, the tents were left standing, and a number of cooking utensils, hatchets, etc., were left for the first Eskimos who should visit the spot, as tokens of goodwill from the white man; and on the morning of Sunday, 3d September—prayers having been first read—the party, led by Richardson and Rae, set out on the march to the Coppermine. Passing Cape Kendall, the party were ferried across Rae River by Eskimos—this being, probably, the first occasion on which the natives performed the part of paid ferrymen to Europeans. The valley of the Coppermine was reached on the 5th, and found filled with snow. The banks of the river, three or four miles above Bloody Fall, were arrived at on the same evening; and a camp having been formed, a good fire was made, and a famous supper of snow geese, about a dozen of which had fallen to Rae's unerring rifle, was prepared and enjoyed. On the evening of the 7th, Rae has his first encounter with a musk-ox—certainly the most formidable creature of the Arctic wilds. The meeting was not fatal; and to this day it remains uncertain whether Dr Rae or the ox are the more grateful for that circumstance. On the 9th, the party passed the boat which had been left by Dease and Simpson at the commencement of the portage to Great Bear Lake in 1839. Starting early on the 10th, Richardson struck the Kendall a short distance above its junction with the Coppermine, and crossed it on a raft constructed of dry timber found on the spot. The explorers now shaped their course across country towards Dease's River. "We steered by the compass," writes Richardson, "Mr Rae leading, and the rest following in Indian file. . . . On the hills the snow covered

the ground thickly ; and it is impossible to imagine anything having a more dreary aspect than the lakes which frequently barred our way. We did not see them till we came suddenly to the brink of the rocks which bounded them ; and the contrast of the dark surface of the waters with the unbroken snow of their borders, combined with the loss of all definite outline in the fog, caused them to resemble hideous pits, sinking to an unknown depth. . . . After walking till half-past five, without perceiving a single tree, or the slightest shelter, we came to a convex rock, from which the snow had been swept by the wind. On this we resolved to spread our blankets, as it was just big enough to accommodate the party. There being no fuel of any kind on the spot, we went supperless to bed. Some of the party had no rest, and we heard them groaning bitterly ; but others, among whom were Mr Rae and I, slept well." When we remember that Sir John, or, as he is better known in these pages, Dr Richardson, was born at Dumfries in 1787, and that consequently, when he accomplished this journey, sleeping every night in the open air in a climate severe enough to turn the russet coat of the hare white, he was sixty-one years of age, we may arrive at some approximate estimate of the old gentleman's pluck and vigour. After sleeping like coney in the hollow of a rock, the travellers were up and on the march at half-past four on the 12th ; and at eight o'clock, and before having had breakfast, forded a branch of the Kendall, the ice-cold water of which came up to their waists. As they travelled along in single file on the 13th, they were seen by a party of Indians, who immediately "made a smoke" as a signal. This intimation of the goodwill of the Indians and of their position, which was on a hill-side distant six miles from Richardson and his party, was answered by the travellers as soon as they could gather a few handfuls of moss, and strike a light. The white men then marched straight toward the Indian camp, where they received a hearty welcome, a supply of reindeer meat, and the services of a native guide to Fort Confidence, where the whole party arrived in safety at four P.M. on the 15th September. Richardson found that the houses erected by Dease and Simpson had been burned down ; but that Mr Bell, of the Company's service, who had been deputed to prepare winter quarters for the party at Fort Confidence, was already well forward with his work. The day after arriving at the fort was spent in rest and in writing ; and the following day, the 17th, being Sunday, Richardson assembled his people in the hall, read Divine service, and returned thanks to the Almighty for the protection and the safe return that had been vouchsafed to all.

CHAPTER VI.

RICHARDSON IN WINTER QUARTERS.

THE site selected for the winter quarters of the Richardson and Rae expedition was Fort Confidence, on Dease River, and about three miles above the point at which the river enters Great Bear Lake. Fort Confidence, it may be remembered, was built for, and named by, Dease and Simpson in 1836. Of the buildings which formed the fort in 1836-39, only a part of the men's house was now standing, and Richardson's "fort" was an entirely new erection. The new building was a log house, built of trunks of trees laid over one another, and morticed into the upright posts of the corners, doorways, and windows. Loam or clay was beat into the spaces between the round logs of the walls and roof, both on the outside and inside, and several coatings of a mixture of clay and water rendered the walls weather-proof. "The building," says Richardson, "was forty feet long by fourteen wide, having a dining-hall in the centre, measuring sixteen by fourteen, and the remaining space divided into a store-room and three sleeping apartments. A kitchen was added to the back of the house, and a small porch to the front." The officers' rooms were furnished with glazed windows; in the other rooms deerskin parchment was used instead of glass. On the east of this central building were two houses for the men, and on the west side were store-houses; so that the whole formed three sides of a quadrangle, facing the south. Two of the men, who were carpenters by trade, were set to make tables and chairs; and Bruce, the half-breed guide, acquitted himself ably and industriously as a joiner. The men were divided into gangs, and employed respectively in cutting and bringing in fuel, in fishing, hunting, etc., and a number of Indians were engaged as hunters to keep the fort well stocked with fresh reindeer meat. At no period during the winter was any inconvenience experienced from scarcity of wholesome food. "Our men," says Richardson, "had each a *daily ration of eight pounds of venison* on five days of the week, and on the other two days from ten pounds to fifteen pounds of fish." Not many of the Europeans, we are informed, consumed the whole of their rations, which

included barley, potatoes, and flour, in addition to venison and fish ; but the Indians, a large number of whom with their wives and children were maintained at the fort during the winter, were generally in attendance at meals to receive the unconsumed victuals.

In the accounts of residence in quarters during the Arctic winter, little variety is to be expected ; and as, in earlier chapters, the winter experiences of all the important Arctic explorers have been recorded more or less fully, the same ever-repeated incidents need not engage our attention in noticing the residence of Richardson at Fort Confidence. In fairness to this eminent explorer and naturalist, however, it is necessary to state that, while weather-bound in his log-house on Dease River, in the winter of 1848-49, he carried on a series of observations and investigations in natural history, the effects of temperature, etc., which, for completeness, width of range, and practical results, throw all the inquiries and observations of previous explorers into the shade. For this reason, therefore, although perfectly well aware that the all-important topic in hand at present is the search for Franklin, we will hazard a minute's delay over Richardson's winter occupations.

Much ammunition, and not a little vigorous rhetoric, were expended upon the Indian hunters, who, when they had killed deer on the Barren Grounds, were too careless to bury the meat securely, until it could be sent for from the fort. The consequence was that the Indian *caches* were in almost every instance broken in upon and robbed by wild animals—generally by wolverines. “The wolverine,” says Richardson, “is extremely wary, and shows extraordinary sagacity and perseverance in accomplishing its ends. The Indians believe that it is inspired with a spirit of mischief, and endowed with supernatural powers. Though more destructive to their hoards of provision than the wolf, or even the bear, and able to penetrate fences that resist their powerful efforts, the wolverine is only about thirty inches long, and a foot high at the shoulder.” One of these animals was surprised in a *cache* and killed. Richardson, who gives its exact dimensions, describes its legs as being remarkably muscular—the fore ones, when skinned, have a “strong resemblance to a finely-proportioned, muscular human arm, rather than to the limb of a quadruped.” This animal breaks its way into a *cache* by gnawing asunder one of the logs that form its roof ; and in doing so it works so hard that “it causes its mouth to bleed, as the ends of the logs and the snow often testify. Once admitted into the hoard, it has to gnaw the pieces of meat asunder, as they are generally frozen together, and then it proceeds to drag them out one by one, and to bury them in the snow, each in a separate place. As it travels backwards and forwards over the meat, it smears it with a peculiarly fetid, glandular secretion, after which no other animal will touch it. In this way one of these beasts will spoil a large *cache* in an hour or two, and wholly empty it in

a few nights." The Indian hunters at Fort Confidence either could not or would not construct *caches* sufficiently strong to resist the wolverine. Dr Rae, however, brought more skill, or more industry, to the task. After a successful excursion he constructed a safe meat-cellar, by cutting a hole in the ice, covering it thickly with snow, and then pouring water over all, until the frost had rendered the whole a solid mass.

The Dog-rib Indians who inhabit the country around Fort Confidence are merry and good-natured, but indolent, improvident, and dreadfully mendacious. As liars, they are probably unsurpassed by the most accomplished practitioners in China or Hindustan. Here also, as in other countries, "woman, lovely woman," commands considerable respect for her charms, and for the use she makes of them. In the spring of 1849, a number of the Martin Lake Indians brought supplies of fresh meat to Richardson's camp, at which a number of Indian women of the Dog-rib tribe were then residing. The strangers carried the venison intended for the white men neatly packed on sledges; but, besides, each man carried a knapsack on his back, filled with a number of the choicest pieces of the meat, to be consumed on the return journey to Martin Lake. "The first act of the new-comers was to run the loaded sledges at once into the store-house, which was open to receive them, but as they arrived in succession, the (Dog-rib) women from the camp generally pressed in, and throwing their arms around a young hunter, with much kindness of manner, would say to him, 'It is long since we have seen you, my relation; how have you fared since we have met? You are a generous man!' and so on. While his attention was thus engaged, and before he could free himself from the unwashed sirens, whose unwonted softness of speech never led him to suspect either ridicule or plunder, one of the females, having cut the strings of his knapsack, would carry it off, amidst the laughter of the crowd. The young fellow thus despoiled of his provisions, however much he might be vexed in secret, was obliged to join openly in the mirth; and the expression of face of some of the youths thus preyed upon, as they endeavoured to force a smile in their distress, was irresistibly comic." Among these tribes, the women, who are regarded as the natural property of the strong, are often moved from one tent to another, without apparently regarding compulsory transference to the home and the affections of a *new* husband—who has been lucky enough to thrash their *old* one—as a hardship.

"All kinds and creatures stand and fall
By strength of prowess, or of wit."

And so the good old rule, the simple plan, sufficeth still the Indians of British North America.

And yet it has never been proved beyond question by any Arctic explorer that these Indian tribes of the remote north of America are bound by any

natural law to decay and vanish from the earth in presence of the white man. Perhaps too much has already been written on the necessarily ephemeral character of the ancient races of America. It is when the vices of the civilised are engrafted upon the uncivilised man that the latter dies out in a very few generations. How would it be if only the virtues of the white man were added to the "savage virtues" of the coloured races? Richardson, a keen observer and just thinker, states that, with proper management, the natural resources of the country around Great Bear Lake "would support a population ten times as great. But as long as all the drones of the community claim a right to appropriate to their own wants the produce of the exertions of an industrious hunter and fisherman, no certain provision for the future will be made. The first step in advance," continues Richardson, "will be the formation of fishing villages, and the culture of barley and potatoes; and, under the guidance of intelligent missionaries, this might be effected without much difficulty; while, at the same time, the truths of Christianity might be brought to bear on the heathenism and moral defects of the Tinnè (or Chepewyan) nation."

The structure and formation of ice is a subject which, prior to the date of the Richardson and Rae expedition, had not, to any serious extent, engaged the attention of travellers within the Arctic circle. This subject, however, formed a branch of scientific inquiry which offered many attractions to Richardson; and the prolonged residence of that naturalist in the fur countries of America afforded abundant facilities for pursuing it. The first step in the freezing of rivers in the Polar regions, and after the water has been cooled down by continued cold weather to the freezing point, or to about 32°, is the formation upon its surface of circular plates of ice of from six to eight inches diameter. "These drift for a time with the current, until they have become numerous enough to cover the surface of the water, when they are arrested in a narrow part of the river, or by any slight obstacle, and speedily adhere to each other, after which the interstices between the circles fill rapidly with crystals that bind all firmly together. The sheet of ice thus produced is at first nearly opaque; but, when, in the course of a day or two, it has acquired the thickness of a few inches, it becomes transparent, and remains so until a fall of snow has obscured the surface. In unsheltered lakes, the wind drifts the snow to the beach, and would, perhaps, keep the ice clear for a great part of the winter were it not that in certain hygrometric conditions of the atmosphere small starry tufts of most beautiful crystals are deposited at short intervals on the ice, and freeze firmly to it. In a dry atmosphere, these crystals evaporate again, but should a fall take place of the fine, dust-like snow, which is the most common kind in the high latitudes, they serve to detain it until it consolidates, so as to resist the wind. It is rare, however, for the snow to lie more than a foot deep on

any of the large lakes, unless where it has drifted under the lee of piled-up slabs of ice, or of rocks, islands, or other shelter. During winter, the ice receives an increase of thickness from beneath, and at the same time evaporates above; the latter process going on with a rapidity that would scarcely be credible to one ignorant of the extreme dryness of the air in an Arctic winter. The ice acquires a thickness of from four to eight feet, according to the severity of the season, the depth of the lake, and other modifying circumstances; and I desire here to advert especially to the fact, that although it is constructed of successive *horizontal* additions beneath, when it decays in spring, it consists of *vertical prisms*, penetrating its whole thickness, and standing side by side like the columns of a basaltic cliff. . . . In this condition the ice may be strong enough to support a considerable weight; and I have travelled over it with a large party on several occasions, when the prisms on which the foot rested were depressed at every step, and a pointed stick could be driven through the whole thickness into the water beneath with as much ease as into a bank of snow. The ice then, in fact, presents the physical characters of a semi-fluid mass, as pointed out by Professor Forbes, its parts being movable on each other, not only vertically, but, as in the case of travelling glaciers, capable of gliding past one another horizontally."

The extreme dryness of the air in an Arctic winter is attested by the rapid evaporation of both snow and ice, long before these are thawed into a liquid form by any action of the sun. Of this fact Richardson gives a familiar but striking illustration. "When a shirt, after being washed, is exposed in the open air to a temperature of 40° or 50° below zero—say 70° or 80° below the freezing point—it is instantly rigidly frozen, and may be broken if violently bent. If agitated when in this condition by a strong wind, it makes a rustling noise like theatrical thunder. In an hour or two, however, or nearly as quickly as it would do if exposed to the sun in the moist climate of England, it dries and becomes limber"—or flexible. . . . "In consequence of the extreme dryness of the atmosphere in winter, most articles of English manufacture made of wood, horn, or ivory, brought to Rupert's Land, are shrivelled, bent, and broken. The handles of razors and knives, combs, ivory scales, and various other things, kept in the warm rooms, are damaged in this way. The human body also becomes visibly electric from the dryness of the skin. One cold night I rose from my bed, and, having lighted a lantern, was going out to observe the thermometer, with no other clothing than my flannel night-dress, when, on approaching my hand to the iron latch of the door, *a distinct spark was elicited!* Friction of the skin, at almost all times in winter, produced the electric odour." The lowest temperature registered during the winter was that of the 17th December, when the minimum was -65°, or *ninety-seven degrees below the freezing point.*

CHAPTER VII.

RAE'S EXPEDITION IN 1849—SIR JAMES ROSS'S EXPEDITION, 1848-50—
AUXILIARY VOYAGE OF THE "NORTH STAR."

It will be remembered that Richardson, on his return from the Arctic shores in the autumn of 1848, was obliged to leave his boats within Eskimo territory, at the mouth of the Coppermine. Had he been able to drag his boats up the river, to a spot in which he might have securely hidden them, he would have resumed the search for Franklin in the following year, with the whole strength of his party. As it was, only one boat was now available for service, and it was therefore the duty of the leader of the expedition, to decide whether he or Rae should take charge of that boat, and of the few men she could accommodate, on a second expedition to the Arctic shores. Sir John Richardson decided upon giving the charge to Dr Rae. The elder explorer accordingly instructed the latter to descend the Coppermine, as soon as the sea should open in July, to explore Dolphin and Union Strait, and the shores of Wollaston and Victoria Lands, in search of Sir John Franklin and his party.

The outline of this supplementary expedition, of which Dr Rae himself gives a detailed account, in his despatch to the Secretary of the Admiralty, dated from Fort Confidence, September 1st, 1849, must not detain us long. Starting from Fort Confidence on the 9th June, with a crew of six men, Rae ascended Dease River; but from the quantity of ice with which the river courses were hampered, his progress was very slow. On the 21st he arrived at the station on the banks of the Kendall River, to which he had caused provisions for the sea-voyage to be conveyed in the spring of the year. Next day he reached the Coppermine, but, finding it covered with ice, he was obliged to remain on its bank five days, which were employed in shooting deer to save the pemmican, in repairing the boat, etc. He did not reach the sea till the 14th July. Camping on the north shore of Richardson Bay (lat. 67° 51'), he was visited by seven Eskimos, among whom he recognised the man who, last season, had ferried Richardson's party across the river, at the head of Back's Inlet. These visitors stated that they had communicated during the winter with the natives of Wollaston Land, and

that the latter had never seen white men, nor their boats or ships. They had not, therefore, seen any party belonging to the missing expedition. On the 16th, the coast being still impracticable from ice, Rae ran into Back's Inlet and explored Rae River, discovered and named in the previous season by Richardson. At thirty miles from its mouth, this stream was eighty to two hundred yards wide, running with a strong current, but exceedingly shallow. On the 24th, the party arrived at the spot where the boat had been left the previous year. The Eskimos had broken up the boats to obtain the iron-work, but had left tents, oil-cloths, pemmican, and ammunition, uninjured. On the 30th, Rae arrived at Cape Krusenstern. "We were now," he writes, "at the most convenient, though not the nearest point for making the traverse to Wollaston Land, and there was no necessity for our proceeding farther along the shore, even had we been able to do so, which at present was impossible, the high rocks presenting an unsurmountable barrier on the one hand, and the ice, by its roughness, equally impassable on the other. . . . Our situation was most tantalising to all the party; occasionally, at turn of tide, a pool of water a mile or more in extent would appear near us, and everything would be prepared for embarkation at a minute's notice in expectation of the opening increasing and permitting us to cross to Douglas Island, but our hopes were always disappointed."

This tiresome state of affairs lasted till the 19th August, when a rather wider extent of open water was seen in the offing. After waiting for hours for a good opportunity of forcing his way through a close-packed stream of ice that was grinding along the rocks as it drove onward, Rae pushed off, and after a few narrow escapes, reached comparatively open water where oars could be used. The party had pulled seven miles out from shore, and were within three miles of Douglas Island, when they encountered an ice-stream so closely packed and so rough that they "could neither pass over nor through it." A retreat to the main shore was the unavoidable result of this defeat. On the 22d, Rae ascended a hill near his encampment, from which a fine view was obtained, and swept the shores of Wollaston Land with his telescope. "As far as I could see," he writes, "nothing but white ice forced up into heaps was visible." The fine weather had now broken up, and Rae, chagrined and disappointed, gave orders to return to the Coppermine. On the 24th, he entered the river, and next day, in attempting to tow the boat up Bloody Fall, he lost one of his crew, Albert, the interpreter, who was drowned in the rapid.

Without further accident, Rae arrived at Fort Confidence on the 1st September. All the stores having been previously packed, he set out next day, reached Fort Simpson on the 26th, and proceeding by the usual route, arrived at the headquarters of the Hudson's Bay Company. Meantime Sir

John Richardson had left Fort Confidence on the 7th May, proceeded south-eastward through Canada by the lake route, entered the States, and, taking ship at Boston, arrived in England, 6th November 1849.

Expedition to Barrow Strait under Sir J. C. Ross—1848-49.—It has already been stated that during the third year of Franklin's absence the British Government resolved upon sending out three search expeditions. Two of these, the Behring Strait expedition, embracing the voyages of Kellett and Moore in the "Herald" and "Plover," including Pullen's boat expedition, and the river and coast journeys of Richardson and Rae, have already been treated. We now come to add a short account of the expedition of Sir James Clark Ross as a pendant to the expedition of Richardson and Rae. For thus treating Ross's voyage to Barrow Strait, there seems to be two sufficient reasons. First, the two searching parties were expected to act in concert, and each was instructed to connect their work with that of the other; and, second, the actual results of Sir J. C. Ross's labours were unfortunately so inconsiderable that it seems scarcely expedient to treat them in a separate chapter.

The first Barrow Strait searching expedition, organised to discover and follow up the track of Franklin in the "Erebus" and "Terror," consisted of the "Enterprise," a vessel of 530 tons, and carrying sixty-three officers and men; and the "Investigator," of 538 tons, and carrying sixty officers and men. Sir James Clark Ross, who sailed in the "Enterprise," commanded the expedition, and was supported by Captain Edward Bird in the "Investigator." The expedition did not leave England till the 12th June (1848), and, as might be expected after such a late departure—late, at least, for sailing vessels—they had not their sorrows to seek. Ross experienced many difficulties in Baffin's Bay, and was unable to cross the "Middle Ice" before the 20th August, on which day he reached open water in lat. $75\frac{1}{2}^{\circ}$ N., long. 68° W. On the 26th he reached Possession Bay (near the south side of the entrance to Lancaster Sound) and was lucky enough to find there a memorandum left by Parry in 1819, though he saw nothing to prove whether Franklin had visited the bay. Entering Lancaster Sound, and pushing west, he reached Cape York on the 1st September, and caused a prominent landmark to be there erected. He then crossed over to the north coast of Barrow Strait, and examined Maxwell Bay and other indentations. Still holding on a westward course, he was stopped by a formidable barrier of ice, which extended from the mouth of Wellington Channel to Leopold Island, at the west side of the entrance into Regent Inlet. On the 11th September the ships were taken into Port Leopold, in which they were effectually sealed up for the winter on the following day by the main pack closing in upon the land. Ross had carried out a steam launch with him, in which he ex-

pected to be able to navigate the narrow channels, and perhaps push as far westward as Melville Island, on which, in the opinion of many, the lost navigators might be frozen up. The closing in of the ice effectually prevented Ross from making use of his launch. An ingenious but not very certain means of conveying to Franklin's party intelligence of the measures which were being taken for their rescue occurred to some of the officers of the searching ships. During the winter a number of white foxes were taken in traps. Around the necks of these, copper collars, on which intimations of the position of the searching vessels, and of the sites of the different depots of provisions that had been made for the benefit of the missing expedition, were engraved. The foxes were then set free to spread the intelligence far and wide.

In the spring, sledge expeditions, conducted by the officers, were sent out in various directions. Lieutenant Robinson searched the west shores of Regent Inlet as far south as Fury Beach; Lieutenant Barnard crossed Barrow Strait to Cape Hurd, but was prevented by the hummocky condition of the ice from reaching Cape Riley or Beechey Island, where he would have found traces of Franklin; while Lieutenant Brown crossed Regent Inlet to Port Bowen. "By these excursions," writes Sir John Richardson, "taken in conjunction with Mr Rae's expedition in the spring of 1847, the whole of Prince Regent Inlet and the Gulf of Boothia was examined, with the exception of 160 miles between Fury Beech and Lord Mayor's Bay; and as there were no indications of the ships having touched on any part of the coast so narrowly traced, it is certain that they had not attempted to find a passage in that direction." Of these search excursions the most important was that of Sir James Ross, who, accompanied by Lieutenant M'Clintock—a name destined to become one of the most famous in the annals of Arctic discovery—thoroughly explored the west coast of North Somerset, down to lat. $72^{\circ} 38'$ N., long. $95\frac{3}{4}$ W. After having thus surveyed nearly the whole of the west coast of North Somerset, a line of coast previously quite unknown, he returned to the ships on the 23d June, much exhausted by fatigue. At Port Leopold, Sir James erected a store-house, in which he left a large store of provisions and fuel, together with the "Investigator's" launch and steam-engine. He then proceeded to cut his way out of the ice-encumbered harbour—a work which was not successfully accomplished until the 28th August, when the season was again on the turn, and enclosure among new ice no unlikely contingency. Having struggled out of the bay in which he had been for a year imprisoned, Ross crossed over in a north-west direction toward Wellington Channel, at the entrance of which he found the land-ice still fast, and preventing his approach. While contending with the loose packs, and struggling to advance to the westward, a strong gale of wind on the 1st September suddenly closed the ice around

the ships, which remained firmly beset in the drifting pack until the 25th of the month. Ross had by this time drifted out of Lancaster Sound, and was now off Pond's Bay. The navigation of the great northern strait had closed for the year; and as further search was therefore at an end, the commander brought the expedition to a close by giving the order to "bear up" for England. This expedition, in which no trace of Franklin was found, is only memorable for Sir James Ross's sledge travelling round the north and west shores of North Somerset, in which he was absent from his ship forty days, and in which the distance traversed was 500 miles.

Auxiliary Voyage of the "North Star."—On the 26th May 1849, the store-ship "North Star," under the command of Mr Saunders, sailed from the Thames with provisions and supplies, both for Franklin's expedition and for that of Sir James Ross. Mr Saunders worked his vessel up the east side of Baffin's Bay amid constant and imminent danger from the ice, which was unusually heavy in the bay in the summer of 1849. Saunders's orders were to proceed to Lancaster Sound with despatches and supplies for Ross, and afterwards to examine the great sounds at the head of Baffin's Bay. His progress was very slow, and it was the 29th July before he reached Melville Bay. In endeavouring to cross over from this bay to Lancaster Sound, Saunders was caught in the ice, and the "North Star" was drifted hopelessly about in the pack for sixty-two days. At length on the 29th September she was provisionally driven into Wolstenholme Sound, where she wintered in lat. $76^{\circ} 33' N.$, long. $68^{\circ} 56\frac{1}{4}' W.$, "being," says Richardson, "the most northerly position in which any vessel has been known to have been laid up." In this high latitude, the greatest cold was felt in February, during which, on one occasion, the thermometer showed $64\frac{1}{2}^{\circ}$ Fahr. below zero.

The story of the wintering of this unfortunate vessel in Wolstenholme Sound has never been written. We know, however, that four of the crew died of scurvy, and that the whole suffered more or less from the same cause. The detention of Mr Saunders in this remote sound, however, enabled him to contradict a mischievous Eskimo report as to the fate of Franklin's ship, which, had it been accepted as true, would have brought the searching operations at once to a close. It appears that Sir John Ross had, during his cruise in the "Felix," picked up an Eskimo at Holsteinborg, named Adam Beck—a clever, ingenious, lying wretch, who gave currency to a report that "two ships had been destroyed by fire in Wolstenholme Sound, and their crews massacred by the natives." This report happened to explode like a bomb-shell during the second week in August, when almost all the searching ships had accidentally come together in the neighbourhood of the scene in which the tragedy was said to have occurred. Many of the officers of the different expeditions were inclined to

believe the report. No casualty had happened to any of the whalers, and the two ships that were thus savagely destroyed could only, of course, have been the "Erebus" and "Terror." If so, the search was at an end, and everybody had better go back to England. The officers of the different ships constituted themselves temporarily into a board of inquiry to investigate the subject. A number of the Eskimos of Cape York, who must have known of the tragedy had it taken place, were examined individually and together in the ship and on shore, and, to be brief, the result was, that Adam Beck was branded by his countrymen as a liar *par excellence*—being far in advance of his tribe in that respect. Cape York was visited, and the bloodthirsty race who had burnt the "Erebus" and "Terror," and massacred the crews, was found to consist of five miserable half-naked and sufficiently inoffensive wretches of the lowest Eskimo type. Beck's story, evidently false from the beginning, was now of course disproved. A week afterwards, the "North Star," having got freed from the ice of Wolstenholme Sound, fell in with Penny's "Lady Franklin" and "Sophia" in Barrow Strait; "and," writes Dr Sutherland of the latter ship, "the report of the Eskimos at Cape York (who had disproved Beck's story) was fully verified by the information which Mr Saunders gave us."

After a winter of much discomfort and suffering, the "North Star" was hauled out of her winter retreat on the 1st August 1850. Her commander then took her across towards Lancaster Sound, where he saw and spoke several of the vessels then engaged in the Franklin search. He touched successively at Possession Bay, Whaler Point, Port Bowen, Jackson's Inlet, and Port Neil; and, according to Berthold Seemann, he deposited his cargo of provisions in Navy Board Inlet, without acquainting any of the searching vessels with that circumstance. On the 9th September Saunders steered for home, where he arrived on the 28th of the same month.

With the unfortunate voyage of the "North Star," the first series of expeditions sent out to seek for Franklin comes to an end. Neither of these expeditions can be said to have been in any distinctive degree successful. Indeed, these earlier expeditions were the only really unsuccessful and barren enterprises organised either by our own Government or by America for the purpose of prosecuting the Franklin search. For from 1849 onward to the present day, the tale of Arctic exploration is enlivened and enriched with the important successes of each succeeding expedition, from those of Austin and Penny, who first struck upon Franklin's track, and of M'Clintock, who first told us the whole sad story of his fate, to those of our own day, in which we are discovering new lands beyond Nova Zembla, and new seas beyond Smith's Sound.

PART IX.

ON FRANKLIN'S TRACK.

CHAPTER I.

CAPTAIN PENNY, WHALING MASTER AND EXPLORER—GOODSIR'S "VOYAGE IN THE 'ADVICE' (WHALER), IN SEARCH OF FRIENDS WITH SIR JOHN FRANKLIN."

CAPTAIN PENNY, the discoverer of the first winter quarters (1845-46) of Sir John Franklin's squadron, and, in virtue of this discovery, the first navigator who had the good fortune to strike the track of the lost expedition, seems to have been born to, as he has certainly lived upon, the sea. He was born in 1809. At what period of infancy he took to a seafaring life is not to the present writer known; but it is certain that, at the—for him—comparatively mature age of twelve, he was already an Arctic navigator, and since that period he has spent his professional life exclusively in Arctic seas, fluid and frozen. Prior to the year in which he was selected by the Lords Commissioners of the Admiralty to command an expedition in search of Sir John Franklin, he had been in command of a whaling ship for sixteen years. At the period, therefore, when he was invited to sail under the red pendant, he, of all British seamen living, had the most thorough knowledge and the amplest practical experience of what is loosely termed "ice-navigation;" and it was in deference to these qualifications, as well as to the well-known resolute character of the man, his fertility of resource, and his zeal in the humane and patriotic cause which he was asked to aid, that he was appointed to the command of H.M. rescue ships, "Lady Franklin" and "Sophia," in the early spring of 1850.

But, in order to attain to something like an adequate notion of the character and capabilities of this famous navigator and discoverer, it seems almost necessary to accompany him on one of his whaling voyages. Of these voyages, probably none was more stirring or more successful than that

of 1849—the last he undertook previously to his appointment to the command of the search expedition already mentioned. Fortunately for us, to give an outline of this cruise is at once *desirable* for the purpose of suitably introducing Captain Penny to the reader, and *necessary* in order to faithfully carry out the purpose and the plan of the present work. The cruise referred to, made in the whaler “Advice” of Dundee, is memorable and noteworthy for more than one reason. It was not exclusively a whaling cruise. It was practically also a Franklin search expedition, and for this reason, if for no other, it falls in to be noticed here in the chronological order which has been observed throughout these pages. In what sense the cruise of the “Advice” in 1849 was a search expedition as well as a commercial venture, may in a few words be explained.

In a previous chapter, in which the departure of Franklin on his last expedition in the “Erebus” and “Terror” is recounted, we were fortunate enough to be able to reproduce from Commander Fitzjames’s “Journal,” portrait-sketches of all the officers of the former vessel. Of these sketches, perhaps none is so vivid, so instinct with character, as that of “Surgeon Goodsir.” He is “long and straight, and walks upright on his toes, with his hands tucked up in each jacket pocket. He is perfectly good-humoured, . . . laughs delightfully, cannot be in a passion, is enthusiastic about all ’ologies, . . . catches phenomena in a bucket, . . . is a pleasant companion, and an acquisition to the mess.” Is this sound-hearted man and “pleasant companion” who so soon won the friendship of all on board, likely to have left no friends at home? That he counted them in troops we may be sure; for, besides his fine social qualities, he possessed a liberal share of that intellectual superiority which won for one member of his family, at least, a European reputation. He himself, though only twenty-eight when he joined the “Erebus,” had been for some time previously Curator of the Edinburgh Museum. His elder brother, John Goodsir, Professor of Anatomy in Edinburgh University, has left a name which is known and revered in every medical school throughout the world. Another brother, Robert Anstruther Goodsir, late President of the Royal Medical Society of Edinburgh, was also a man of fine intellectual gift, and of sympathy warm and wide. With this last gentleman it is now our privilege to commence a pleasant acquaintance in these pages.

Years having passed after the departure of the “Erebus” and “Terror” without one re-assuring message being brought home from the blank Polar wastes, R. A. Goodsir—like a thousand other kinsfolk of the absent men—began to feel much anxiety for the fate of his brother “Harry,” as in his letters he familiarly calls the assistant-surgeon of the “Erebus,” and eventually he resolved to go out to the north and search for him and for the missing expedition. In 1849 he incidentally heard of Captain Penny (then master

of the "Advice"), and of the enterprising character and energetic disposition of that gentleman. He had, like his brothers, received a medical training, and he now resolved to make that training his passport to the north. He proceeded to Dundee, had an interview with Penny and with the managing owner of the "Advice," offered his services as surgeon for the summer cruise, was engaged, sailed on the 17th March 1849, returned in the autumn of the same year, and wrote and published "An Arctic Voyage to Baffin's Bay and Lancaster Sound in Search of Friends with Sir John Franklin."

The book named is exceedingly valuable, not on account of the results of the "search," but as giving an excellent account of whaling operations with modern appliances, making us familiar with the character and the high professional skill of Captain Penny, and placing before us impressions of life in the far north of Baffin's Bay, which are simply delightful from the facts that they were made upon a mind perfectly fresh and unhackneyed, yet gifted at once with great powers of observation and of expression. A gale that sprang up on the 27th March would certainly have cut short the career of the young adventurer, but for the mere accident that at a given moment he happened to leave the deck and go below. In this storm, the first serious incident of the voyage, two of the crew were washed overboard. Goodsir's description of the storm will commend itself to every one who has been at sea in hard weather as being at once perfectly fresh and perfectly true: "On the 28th it began to moderate somewhat, but a tremendous sea was running. About eleven o'clock I ventured on deck, and, for the first time in my life, saw what the ocean *looks like* in a storm. I could see nothing all around but heaving mountains of water; each succeeding wave seemed as if it would swallow up the labouring vessel, but it always appeared to melt away gently under us, except when one more rapid, or 'cross,' would send water and spray washing over her decks and high up into the rigging. The motion of the ship was not uncomfortable, being very different from the short cross pitching we had experienced in the North Sea. I remained on deck about a quarter of an hour, gazing about me in silent wonder and admiration, little thinking that the hitherto harmless waves were upon the very eve of proving their might over man's puny bolts and beams. Feeling it chilly, I went below. I had just entered the cabin and taken my seat, when the ship became motionless, as it were, and seemed to tremble in every beam. A report like thunder, mingled with the rending and crashing of timber; sudden and complete darkness, with a rush of water through the skylight, and the ship thrown on her beam ends, showed me what one has to expect occasionally at sea. I scrambled on deck after the captain, as I best could, scarcely knowing what had happened. Here nothing was to be seen but wreck and destruction. The quarter-deck was literally swept of everything, rails and bulwarks, almost all the stanchions, the binnacle, com-

passes, dog's couch, and nothing could be seen of the wheel but the nave. But the worst was still to come, two poor fellows were missing. One had perished unnoticed; he must have been killed amongst the wreck, washed overboard, and sunk like a stone. The other had been seen by the mate, for an instant only, floating on the binnacle, and just sinking. No human assistance could have been rendered to them with such a sea running. Two other poor fellows were rather seriously injured, and took up my attention for some time. The captain, cool and collected, soon restored confidence to his men, and in a short time had the wreck cleared away, a long tiller shipped, and the vessel again hove to. Spare spars were lashed to the stanchions that remained, so that we had again something like bulwarks, but for many a day afterwards the ship had a sadly damaged and *wrecky* appearance. I have much reason to be thankful to Providence for my escape, for had I remained but ten seconds longer on deck, I should either have been crushed under the wreck or washed overboard. Many of the men, I daresay, were grateful enough, but, sailor-like, in a few days all was forgotten, and 'sweethearts and wives' drunk as heartily on the Saturday nights as ever. At any rate, we soon heard their clarionet and songs sounding from the half-deck as cheerily as before."

The progress of the "Advice" toward the usual fishing-grounds was satisfactory. It can only be glanced at here. On the 14th April the whalers saw the first iceberg, and in a few days afterwards they rounded the Cape. They passed through the first ice-streams on the 20th, and on this day each of the seven harpooners of the "Advice," having had his boat adjudged to him by lot, with his boat's crew, set to work to splice his lines together and to coil them away in the after-part of the boat. These preliminary operations were all performed with the most anxious care; for seeing that the value of a whale may be from £500 to £800, it is of the greatest importance that the lines and all the other appliances should be in perfect condition. On the 22d they were really among the ice for the first time; and, says our landsman, "a very bitter day it was. . . . The frost was intense; the ship was almost incased in ice, the bows one mass of it, and every rope *electrotyped*, as it were, with a silvery covering. I never, during the rest of the voyage, felt the cold so intense as on this day." With the close of April, however, came bright sunny weather, with cloudless skies. As the "Advice" sailed along the coast to the north of Queen Anne's Cape, Goodsir was charmed with the coast scenery, at once *new*, and in the highest degree imposing; and he reproduces its chief features in two sentences—which are absolutely photographic in their truth, and which we take the liberty to quote, though we have already had so much to say on the subject of Arctic scenery, simply because they evince extraordinary vividness of impression on a fresh mind, and great powers of reproduction in verbal description. "The whole length

of the coast we sailed along was a succession of towering mountain-ranges, covered with snow, bordered by the black and precipitous shores, along which were seen the entrances to the numerous fiords, deeply indenting this coast, but which, at the distance we were at, appeared to be merely valley. The different effects of light and shade were exceedingly beautiful, more particularly in the evenings, when the summits of the more distant inland ranges shone in the sunlight like masses of gold, and the icebergs in the foreground were tinged with the most beautiful and dazzling colours. . . . One berg which I saw here was perforated by an arch of the most perfect outline. The berg itself was of immense size, and I am not exaggerating when I say that a pretty large vessel could pass through it with all sails set. But it is impossible to describe the beauties of these ice-islands. Many of them have caverns worn in them, within which the ice appears of the most brilliant blue and green, whilst without all is of stainless white, the entrances curtained, as it were, with glittering icicles."

On the 8th June, the "Advice" had advanced to about lat. 74°, and was standing off the "Devil's Thumb," an immense column of rock rising from among the mountains not far from shore; and on the 1st July, Captain Penny was in sight of Cape York, which abuts on the northern entrance to Melville Bay. On the 3d he passed the famous "Crimson Cliffs" of Sir John Ross, and found them not at all crimson, but rather dirty brown in colour. On the 4th the whalers were fairly in the north-west, whence, sailing westward, they passed Carey Islands, and sighted the "west land" of Baffin's Bay on the 8th. The land seen was part of the coast of North Devon, from which, steering south, Penny passed the mouth of Lancaster Sound. "We were too distant at this time," writes Goodsir, "to make out whether the sound was frozen across, but it may be believed it was not; with no uninterested eyes I looked in that direction, which, four years before, had been taken by those of whose welfare so many were now looking eagerly for tidings. I would fain have struck at once for the westward; however, there was nothing for it but to wait patiently. So I made up my mind to pass the next month in Pond's Bay, as I best could—the hope never leaving me that I might yet succeed, one way or another, in getting up Lancaster Sound." On the evening of the 9th, the "Advice" was off Cape Graham Moore, the northern point of Pond's Bay—then the most productive fishing-ground of the whalers. Here for a time Goodsir must be content to remain, leaving aside the main object he had in view in coming to Lancaster Sound. He must accept the inevitable. It was Captain Penny's first duty, to himself, his owners, and his crew, to secure "a full ship," after which, whatever could be done to forward the "doctor's" wishes, he would doubtless try to do; for his heart was in the sacred cause, as well as Goodsir's. Meantime the nightless day—for the sun had ceased to decline below

the horizon since the 10th May—would not weary him, for he was to see what Purchase calls “an hunting spectacle, of the greatest chase which nature yieldeth, I mean the killing of the whale.”

Captain Penny had a strong conviction of the value and importance of sailing early for, and arriving early at, the whaling grounds. He considered that if he could get to Pond's Bay in or about the first week in July, he should fall in with a run of “fish;” and here he was, hanging in the breathless air at the entrance of the bay on the 9th. Already he was eager to be at work, and he talked of sending the boats into the bay to try and capture one or two of the leviathans of these waters. His usual luck seems to have attended him, for on the day of his arrival in the bay he caught “two fish at a fall.” On sailing slowly into the bay, Penny saw that he had not been first in the race to the fishing ground, and that he had been preceded by a vessel which turned out to be the “St Andrew” of Aberdeen. The “St Andrew” had got through the barrier of ice at the north end of Disco, *inside*, or to the eastward of Hare Island, at the mouth of Waigat Strait, and proceeding northward, had *found open water* almost the whole way through Melville Bay in the beginning of June. She was only once obliged to cut a dock as a protection against moving ice, and she arrived in Pond's Bay on the 10th June, a month before the “Advice.” She had not however killed, or even seen, any whales. “I was annoyed at this,” writes Goodsir, “or rather at my own bad fortune in our ship not having got through at the same time, merely in consequence of our not succeeding in getting through the barrier of ice at Hare Island when we first attempted it. It was thick weather at the time, and the ‘St Andrew’ took the inside of the island, whilst we tried the outside. She succeeded, but we had to put back. The result is seen; she was at the west side of Baffin's Bay a full month before any of the other ships, and had little or no difficulty in effecting it. This proves that Mr Penny is right in the opinion he has so often expressed to me, that the earlier in June the passage through Melville Bay is attempted, the easier will it be effected. He has pointed out to me that the prevailing winds during the month of May and the beginning of June, are from the north or north-east, and that the effects of these are to drive the ice to the southward, consequently slackening it in Melville Bay and the northern part of the ‘middle ice,’ and thus rendering the passage through it easier during the earlier part of the month of June than it is about the end of it: and that it is still more difficult during July, from the prevailing winds then being from the south and south-west, their effect being to pack the ice into Melville Bay. Going over every year from 1820, he has shown to me *that the earlier the passage has been attempted, the easier it has been*; and that if the whale ships have been delayed to the southwards, from any of the many causes which are apt to impede them, they have always had proportionate

difficulty in effecting their passage, according to the period in the month of July in which it was attempted. For instance, Sir John Franklin's ships, in 1845, were only crossing the Arctic circle at the time we were this year (1849) in the 'north water.' And in 1845 Sir John Franklin's ships were met in Melville Bay beset, and still forty miles from the 'north water,' when the whalers were returning full from Pond's Bay.

"I was the more annoyed at our bad luck, seeing that if we had got through at the same time as the 'St Andrew,' some advantage might have been taken of the additional time thus gained, to search for some information of the expeditions. I am certain, at least, we should not have been lying idle. Mr Penny had proposed a most feasible plan to me, and which I should have been delighted to have had it in my power to execute. He knew there was an Esquimaux at Pond's Bay of the name of Toonick, with whom he was well acquainted, an intelligent fellow, and who could speak English well. Our plan was, that I should make a bargain with this man to accompany me as a guide from Pond's Bay to Navy Board Inlet. With a couple of sledges, the necessary number of dogs, and Esquimaux attendants, we thought this could have been easily done, and I yet regret that I had it not in my power to try it. Although we visited Navy Board Inlet a month afterwards, and found no trace of the expedition there, yet my time would have been as well employed as on board ship; and, if I had done nothing else, I could have ascertained whether or not there is a sea communication between the two inlets, which seems exceedingly probable. However, we found, upon inquiry, from the first natives who came off to us, that Toonick, and almost all the rest of the Esquimaux, had proceeded up the country salmon-fishing. Those who were left were all old men, many of them afflicted with snow-blindness; and the only stout young fellow we saw appeared to be idiotical. We could make nothing whatever out of him. Our scheme was thus knocked on the head, much to my disappointment, as I had looked forward to it with great hopes." How many voyages of discovery in the high latitudes have failed from omitting the precaution to be at the edge of the ice early in the season!

Whaling now went merrily on for the next two weeks, Captain Penny enjoying more than the average share of good luck. During this time, Goodsir's habits were sadly upset. It almost invariably happened that when the electrifying cry of "A fall!" was heard, it was at midnight, or shortly after it; "and then," says Goodsir, ruefully, "adieu to sleep for the next eight hours at least." For the first ten days the "doctor" seems to have suffered a little from despondency, bred of his enforced confinement on a whaling station when his heart and soul were away among the ice-rimmed coasts, the channels, and inlets of Barrow Strait, among which it might still be possible to find his brother, or at least to rescue some of Franklin's party.

Gradually, however, his healthy nature seems to have asserted itself. The instincts of the true sportsman were within him. Always interested in the fortunes of his ship and of Captain Penny, for whom he had the highest esteem, he soon began to participate in the excitement that thrilled through the ship when "A fall!" was shouted from aloft, and the men tumbled headlong into the boats, and rowed madly away to be in at the death. It was when in his despondent mood that he wrote: "For my part, every successive capture we made was a sort of disappointment to me, for the more we got, the less chance was there of our getting up Lancaster Sound—my only aim and object." Alas! poor Yorick! A few days later, however, we find that he has, temporarily at least, aims and objects of a very different character. The spirit of the hunter is soon awakened within him, and rages in his bosom as in that of another Nimrod. Let us see the doctor *en chasse*: "It was late in the evening of a brilliantly clear and warm day—one of those days which but too seldom enliven this land of eternal ice and snow, and which, when they do happen, contrast so delightfully with the many days of dreary mist which the visitor of Arctic countries has to endure. Two or three of the hands were lounging listlessly about the decks, all the watch being 'on the bran' (watch) in the boats, stationed along the ice, to which the ship was made fast, and the rest of the crew sound asleep in their berths. The master had just gone up to the crow's-nest to take a look around him before turning in. He had not been there many minutes before his quick and well-trained eye saw whales blowing beyond a point of ice some ten miles distant. The welcome news soon spread that the long-looked-for 'run' was at length in sight, and ere long every soul was astir and ready for the sport. The boats were immediately lowered, those in the 'bran' were called alongside, and their kegs filled with bread, beef, and water, and a small supply of grog given to each. The master was anxiously reiterating his orders to each of the harpooners; whilst some of the keenest of them were running up to the crow's-nest, and as they came down again were asserting that they saw the whales spouting like 'steam-coaches, only far thicker.' Most of the boats were now sent off to meet the 'run;' but in a short time, the whales showing no inclination to come further into the bay, the rest were despatched also, with orders to pull right out to them. I had no idea of remaining by the now almost deserted ship at a distance from the scene, so I proposed to go in the last boat, and, as we were short enough of hands, I had no difficulty in getting my offer accepted. We had a long pull before us, but the anticipation of the sport, the delightful calm of the evening, and the beauty of the scene around us, shortened the distance wonderfully. . . . We passed a Kirkcaldy vessel, the crew of which were busily engaged, and pulling onwards. We shortly came up to one of our own boats, which we found had succeeded in killing a large fish of ten or eleven

feet bone: the fish was floating at the edge of the floe, and the boat's crew would fain have had ours to join them in the laborious and irksome task of hauling in their lines. But we had no idea of this when there was sport to participate in a little farther on: so, after a few minutes spent in asking questions—how many lines she had taken out, etc., all of which seem so interesting to the true whaler, we had regained breath, and pulled onwards. About three miles farther on we found a second boat with her 'jack' flying, denoting that she was fast. Passing close to this boat, we found that the fish was taking out line with great force and rapidity, and that the harpooner was rather doubtful as to his being 'well fast' or not; that is to say, he was uncertain whether his harpoon was securely inserted into the whale. He had fired at a long range just as the fish was going down. We pulled in the direction in which she was 'heading,' where the rest of the boats already were. Before we got up to them, she had made her appearance at the surface. A second boat had got fast to her, and just in time, as she was seen to be 'loose' from the first. She did not take out much line from this boat, but remained away a considerably longer time than usual, greatly to our astonishment, until we found that she was 'blowing' in some holes in the floe, a good distance from the edge of it. One of the harpooners immediately proceeded over the ice with a hand-harpoon, trailing the end of the line with him, assisted by part of his crew, and from the edge of the hole drove his weapon into the body of the poor whale; whilst some of the others following plied the bleeding wretch with their long lances, so that she was soon obliged to betake herself again to the open water outside the floe. Here more of her enemies were waiting, for our boat was immediately upon her, and a gun-harpoon was at once driven almost out of sight into her huge side, which was already bristling with weapons. Our boat was on her very back as she dived, with an unwieldy roll, which sent it surging gunwale under, taking the line whistling out for a score fathoms, until the harpooner, knowing she was pretty well exhausted, stopped her way, by taking three or four turns round the 'bollard.' But every few seconds she would make a start, drawing the boat almost head under, until the line was permitted to run out again, which, as it did so, made a grinding, burring noise, eating deep into the hard lignum vitæ of the bollard, enveloping the harpooner in smoke, and causing the most distinct smell of burning, which was only prevented from actually taking place by the line-manager throwing water constantly on it.

"Again she appeared at the surface, but far exhausted, still she made a strong fight for it, lashing about with her tail and fins in fury whenever she seemed to have regained breath. It was no very pleasant sight to see her tail quivering high up in the air within but a short distance of us, and coming down on the water with a loud sharp crack like the report of a dozen rifles,

and which, had it alighted on any of our boats, had power sufficient to have converted their timbers into something very like lucifer matches. A few more lances soon settled her, and ere long she was rolling on her back. The usual cheers of triumph were given, and we had time to breathe and shake ourselves, for it may be believed we had not escaped the showers of spray which the defunct had sent about so liberally. The water far around us was dyed with blood and covered with a thick pellicle of oil, upon which the 'Mollys' (mollemokes) were as busy as they could be, whilst the edges of the ice, as far as we could see, were deeply crimsoned; and a hummock on the edge of the floe, beside which the final struggle had taken place, was from the summit downwards streaked with the black blood which the last few blasts of the dying monster had sent over it. Much to our satisfaction, we had little line to pull in, so that we were soon ready for another victim. It must not be thought, however, that I have been all this time an idle spectator. If one wishes to partake in this sport, he must also partake in the labour. The whale-boats are necessarily so constructed that they can only contain their proper crew. But as I was able to handle an oar, from former practice, I had no difficulty in finding a place in them and so gaining a closer view of the scene. The labour was severe, as we had already pulled upwards of fifteen miles, and that at full stretch, as hard as we could lay to our oars; but this was scarcely thought of at the time. It was only now, when the excitement was over, that I thought of fatigue or felt it. I had luckily pitched my pea-jacket into the boat when we left the ship, as I had a sort of idea we might be some time away; so I now rolled it up, placed it on the gunwale of the boat, and stretching myself out on the 'thwart,' slept as soundly as ever I did in my life. My slumbers, however, did not last long, for it was scarcely according to rule that any one should sleep in the boats on fishing-ground. But I woke thoroughly refreshed, and we were again in full chase after the 'fish.'

"We had two or three unsuccessful bursts after them, but failed in getting within striking distance. We saw one of the boats, however, a short way from us, fire at a large fish, which, on receiving the harpoon, leapt almost clean out of the water, head first, displaying the greater part of its huge bulk against the sky, until we thought it was going to jump right on to the floe. Suddenly reversing itself, its tail was seen high over the boat, and so near, that for an instant or two we breathlessly expected to hear the cry of agony from the poor fellows as they were crushed beneath it. But she dived sheer downwards, quite clear of the boat, towards which we now pulled quickly to render assistance, more excited, perhaps, by the narrow escape we had just witnessed than they were themselves. Distant as we were from the ship, and notwithstanding the hair-breadth escape they had just made, the joyous shout of 'A fall!' was now raised, and the jack dis-

played. Just, however, as we reached it, the line which had for the few seconds since the fish had dived been running out with lightning speed, slackened, and the strain stopped. The harpooner looked blue, and began slowly hauling in, his crew assisting, with long faces; for, be it remarked, each man in a 'fast boat' gets half-a-crown and the harpooner half-a-guinea. We sat gravely by, condoling with them on having lost their fish. In a few minutes the harpoon appeared on the surface, and was hauled on board, with sundry maledictions from the *heathens* of the unlucky boat. The whale had wrenched herself loose by her sudden and active leap, for the massive iron shaft of the harpoon was bent and twisted upon itself as one would twist a piece of soft copper wire with a pair of pliers. We pulled back again towards our former station. By this time we scarcely knew whether it was night or day. We had a sort of an idea that we had been a night and a day away from the ship, but of that we were not certain. We had made repeated attacks upon the biscuits and canisters of preserved meats, but although the appetites of steady-living people at home are pretty fair time-keepers, we found ours of little use in that way here.

"I suspected it was again night, but I could scarcely think it possible, the time seemed to have passed so rapidly. But there was a *stillness* about the air that must have struck every one as peculiar to the dead hour of the night; and although I have noticed it in far different situations, it never struck me so forcibly as it did here. The light passing breezes and cats' paws which had dimpled the water for some hours back had died away. It was now so calm that a feather dropped from the hand fell plumb into the sea. But it was the dead stillness of the air which was so peculiar. No hum of insect, none of the other pleasant sounds which betoken it is day, and that nature is awake, can be expected here even at mid-day in the height of summer, twenty miles from land, and that land far within the Arctic circle, where, if one may say so, a third of the year is one long continuous day. Yet there is a most perceptible difference—there is a stir in the air around—a sort of *silent music* heard during day which is dumb during night. Is it not strange that the deep stillness of the dead hour of night should be as peculiar to the solitude of the icy seas as to the centre of the vast city? For many hours we lay quietly still, no fish coming near enough for us to attempt getting fast. But during the whole of this time they were pouring round the point of ice, and apparently running in towards the bay, almost in hundreds, the deep boom of their blowings resounding through the still air like the distant bellowing of a herd of bulls. My ear should have been pretty well accustomed now to the blast of the whales, but it was not until this time that I ever had noticed the peculiar hollow *boom* of their voice, if voice it may be called.

"We thought at the time that the fish were running right into the bay,

and imagined we could hear the distant sound of the guns and the shouting of 'falls' about the ships, which could just be seen. We were in no very good humour at the idea of not being in the thick of it, but we had no reason to complain as it turned out, for we learned, on our return, that the fish had never gone into the bay, and that scarcely any one had seen them on this occasion but ourselves. But we now had a good chance. A fish was seen beside the ice at no great distance from us, but beyond a 'fair start.' I have noticed a peculiarity about the whale, that if there is a piece of ice within sight it will run towards it, and come to the surface beside it. And when beside a floe, it always rises beside its edge, and never appears at any distance from it. And, moreover, if there should be a crack or bight in the floe, it is ten chances to one it will rise to blow in it, in preference to the outer edge of the floe. This is well known to the whalers. Such a crack being now opposite to us, and at such a distance from where the whale was last seen, it was likely she would rise there next, and we pulled towards it. Here we lay for some minutes in breathless expectation, our oars out of the water, and the harpooner silently motioning with his hand to the boat-steerer which way to 'scull.' Up in the very head of the crack the water was now seen to be circling and gurgling up, '*There's her eddy,*' quietly whispers our harpooner: '*A couple of strokes now, boys—gently—that'll do.*' Looking over my shoulder, I could see first the crown, then the great black back of the unsuspecting whale, slowly emerge from the water, contrasting strangely with the bright white and blue of the ice on each side—then followed the indescribable, hurstling roar of her blast. But short breathing time had she—for, with sure aim and single tug of his trigger-string, the keen iron was sent deep in behind her fin. '*Harden up, boys!*' he cries, and the boat is pulled right on to the whale, when he plunges the hand-harpoon deep into her back, with two hearty *digs*. The poor brute quivered throughout, and for a second or two lay almost motionless; then diving, and that with such rapidly increasing speed that the line was whirled out of the boat like lightning. The usual signals were now made to the other boats that we were 'fast.'

"For the first few minutes the lines were allowed to run out without interruption, then one, two, three turns were successively thrown round the 'bollard.' This had the effect of stopping her speed somewhat, but the line still ran out with a great strain. The boat's bow was forcibly pressed against the ice, and crushed through the underwashed ledge to the solid floe beyond; the harpooner sitting upon his 'thwart,' allowing the lines to run through his hands, which were defended by thick mits: stopping the progress of the fish as much as he could, as the rest of the boats were still some distance from us. Every few minutes the fish seeming to start off as with renewed strength, the boat's bow would be pulled downwards, threatening

to pull us bodily under the floe. But then allowing the line to run out, the strain was partly removed, and the boat's head again rose, but only to be again dragged downwards. Upwards of twenty minutes had elapsed since we had 'got fast,' and the strain now began to slacken, but it was full time—we were drawing nigh the 'bitter end.' The welcome sound of a gun was heard, and in a few seconds, looking down the edge of the floe we could see one of our boats with the well-known blue 'jack' flying. A few fathoms more of line were rapidly drawn out, and then the strain as suddenly ceased. We commenced hauling them in, and whilst doing so, could see a third boat 'get fast.' The rest of the boats were now at hand, and as she appeared at the surface, closely surrounded her, and busily plied her with their lances. It was in about an hour and a half from the time we first struck her that we heard the distant cheers announcing her death. From the time the second boat had got fast we had been busily engaged hauling in our lines, and thus slowly approaching the cluster of boats round the dying whale. But long ere we had finished this they had succeeded in killing her, and she was lying safe and sound, made fast to the edge of the floe. The boats now collected and prepared to tow the dead fish to the ship. This was even more tedious than hauling in the lines, but as I had volunteered to take my place in a boat, I said not a word, but tugged away at my oar in silence. Luckily, however, one or two fish were seen near us, in pursuit of which our boat and another cast off from those which were towing. The moment we were again in chase, fatigue and languor vanished, and we stretched to our oars as heartily as we had done when we first left the ship.

"We had a long, but a fruitless pull, and in the meantime a light breeze had sprung up, and we could see that the ship had 'cast off' from the land ice in the bay, and was working down towards the boats and dead fish. We pulled towards her at once, and I was not a little glad to be able to stretch myself on deck again, after nearly forty-eight hours' confinement to the thwart of a boat. A hearty welcome from the captain, who was not a little astonished to find me so fresh after my labours, and the tempting sight of smoking beef-steaks and *early potatoes* on the cabin table soon made me all right, nor did I feel half so fatigued as I might have expected, and was later than even my usual time of retiring to my narrow berth in the little closet off the cabin, which was by courtesy termed the *doctor's state-room*.

"Two or three days after this, I had another opportunity of closely witnessing the death of a whale. She had been struck in a crack but a short distance from the ship. All the crew, except the 'watch,' who were on the 'bran,' were sound asleep in their berths below, fatigued after some days' hard labour. It is a most laughable scene to see a 'fall' called under such circumstances. The one or two hands who were walking quietly and gently on deck a second before, in order not to disturb the fatigued men below, are

now seen dancing and jumping like madmen on the half-deck hatch, screaming 'a fall!' as if for their lives. The more active men of the crew are on deck in an instant, with ready bundle of clothes in hands, and shoes or boots slipped loosely on their feet. But it is generally a race who will be first into their boats, clothed or unclothed, and nothing is more common than to see half-a-dozen fellows rushing to the boats with nothing on but their woollen underclothing, the rest in a bundle under their arm, trusting to the first stoppage to complete their toilette, such as it is. Rather a sudden change this from their close and crowded 'bunks' (as they call them) in the half-deck to an atmosphere often far below zero. But neither the old whaling sailor, nor the green Orkney boy, ever seemed to feel it.

"The stern-boat was the only one now left on board. The master ordering it to be lowered, and getting into it himself, I jumped in with him. We pulled up to the 'fast boat,' to see how things were getting on, and found they were only fast with the gun-harpoon, and not very well with that. Whilst talking to the harpooner of this boat, we heard a commotion amongst the others, and almost before we had time to turn, bang! went one of their guns, and the fish was made almost secure. She seemed to dive under the floe, and reappeared almost at the same place, for she next came up within a very short distance of where she was first struck, when a third boat got fast to her, and before she dived again she was mortally lanced. When she next appeared at the surface, it was close to our boat; we were at her in a minute, when the ready lance of the master was twice buried deep behind her fin. She made a rush forwards, which pulled the lance out of his hand, but he soon had a second—we 'hardened up' to the fish, when he plunged it into her side. She had been quiet enough hitherto, but it was now full time for him to cry, 'Back, men, for your lives!' I heard a sudden whizzing, whistling sound in the air—I thought a black cloud had passed between us and the sun—a drenching shower of spray passed over us, and there was a loud *thud* upon the water on the other side of the boat, as her huge tail descended into the sea, which it continued to lash into seething foam for more than five minutes. It may be believed that whilst this was going on we all kept at a safe distance. It was, however, only the last struggle—'the dying flurry,' and the huge mass was soon lying powerless and motionless before us. This was a female whale, and one of the largest we had yet seen." Its length was sixty-five feet, and its breadth behind the gills thirty feet.

Such was Captain Penny's good fortune, that in three weeks he had taken almost as many fish as he wanted, and had nearly "a full ship." He was now free to bear up from the fishing-ground of Pond's Bay, and steer for Lancaster Sound. Goodsir was devoutly glad to find himself "running smartly" towards the sound on the 1st August. On Friday the 3d, Captain

Penny, who for the time had ceased to be a whaler and had become an explorer, was borne on his way with a favourable breeze. A sudden shift of wind, however, blowing off Navy Board Inlet, forced him to stand to the northward, and he sailed in this direction until he could make out the headlands of the northern shore. On the morning of the 4th the air thickened with fog, and there was a heavy sea and a rising gale. At six A.M. the ship had to be hove to, under close-reefed main-topsail. At ten A.M. heavy "washing ice," or pieces over which the waves washed and broke, was met with, and the remainder of the day was spent in manœuvring against ice and wind. On the 5th, the "Advice" got so far to windward that Captain Penny, after passing Cape York, sighted Leopold Island from the mast-head. At this point progress was arrested. "All hope of proceeding farther," writes Goodsir, "had now to be given up, and we at once commenced to ply our way out of the sound, deeply chagrined at having to renounce our search. For my own part, I was miserably distressed: I had failed in achieving the only object of my voyage. But Mr Penny has scarcely another course open to him: he was not authorised to prosecute the search, or to go out of his way in obtaining information regarding the expeditions. . . . The next three days were melancholy enough; we were now retracing our steps; there was no hope of future success to sustain us now."

In the voyage up Barrow Strait, as well as on the return voyage, Captain Penny deposited casks containing letters, newspapers, etc., and surmounted by long poles, with red vanes as signals, on several of the prominent headlands. For this, and for his endeavours to carry succour to Sir James Ross's expedition, he received, in due time, the substantial acknowledgment of Government.

Repassing Pond's Bay, and stretching away on a south-east course, the "Advice" reached Home Bay. Thence, after capturing a white whale, Penny slowly worked his way south. After a run of a few days in this direction, the captain, who was not yet quite "full," was delighted to see the horizon chequered by the spouting jets of numerous whales. "All sail was crowded on at once, though there was a strong breeze blowing; but there being three or four other vessels in company, it was of course necessary," writes Goodsir, "to be ahead of them. This we accomplished in gallant style; the good old 'Advice,' when well handled, clumsy as she looked, could still sail well, and, indeed, throughout the whole voyage, when we were in company with the others, I think we showed as good a pair of heels as any of them. Well, we got into the midst of the black floundering masses; one, two, three boats were in an instant lowered, and in five minutes one of the largest of the oily giants was writhing and struggling under the tortures of a deeply-planted harpoon. 'She' made rather a long and hard fight, but was ultimately subdued." The "fish" was soon got

alongside, "flensed," or stripped of its blubber, which, as soon as the men could be spared, was "made off" into oil, and stored in the hold.

Meanwhile a rare and humorous incident occurred, which showed that Penny, in keeping his weather eye open, occasionally saw something to his advantage. He was up in the crow's-nest, and, sweeping the horizon with his telescope, he saw a huge black mass lying on the surface of the sea, about five miles ahead of the "Advice." It was a dead fish worth £500 at least. Now, as there were two ships between the "Advice" and this mountain of blubber, it was necessary to act warily, in order to pass these ships and reach the treasure, which of course would be the prize of the first comer. Trusting to no man on board, Penny himself started off with a well-manned boat. He went cautiously and slowly at first, careful lest he should rouse the attention of the other masters, who would be sure to wonder what game he was after. As soon as he had passed the boats of the other ships, however, he gave orders to go on at full speed. Goodsir mounted to the "crow's-nest," to watch the event of Penny's stratagem. "Luckily," says he, "during this time, the masters of the other ships had not been in their 'crow's-nests'—being busily engaged with their captured fish, so that they did not notice our cautious manœuvring. But now, one of them ascending, noticed (as he afterwards informed us) my long form standing erect on the seat of the 'nest,' with telescope fixed to my eye, and seemingly greatly interested in what was going on ahead of his own boats. They are quick-witted as well as quick-sighted, most of these same whaling-masters; so, seeing at once that something was in the wind, his own glass was immediately applied in the same direction, when he at once saw one of our pretty white boats pulling rapidly towards an object that he almost at the same time discerned—an object, too, worth some little trouble to attain possession of. But he at once saw it was too late. . . . Our good outlook gained us possession of the valuable prize; for now I could see those in the boat waving the blue 'jack' aloft in triumph. I shouted out 'a fall!' to those on deck, which was loudly and gladly responded to, and the ship's jack was again hoisted to the mizzen-top, not a little to the astonishment, and, I daresay, causing not a little envy, amongst those of the other ships, who had not noticed what was going on in the 'Advice.'" The immense carcass of the whale, swelled to an enormous size by the generation of gases, was soon towed to the ship's side, "flensed," and "made off" in the usual way.

The voyage was now to all intents and purposes at an end. It was Penny's first duty to sail at once for home with his valuable cargo. That duty he successfully accomplished in the early autumn. He and Goodsir then parted, to meet again on the trim deck of the "Lady Franklin," for another and a more effective "search" for the missing mariners.

CHAPTER II.

CAPTAIN PENNY'S SEARCH IN THE "LADY FRANKLIN" AND "SOPHIA."

THE ships of the two Barrow Strait expeditions—the "Enterprise" and "Investigator," under Sir James Clark Ross, and the "North Star," under Commander Saunders—had been caught in the drifting pack in 1849-50, and had, owing to that circumstance, been disabled for further efforts in the interests of the missing expedition. No such misfortune, however, had befallen any of the whalers during the same year. To the relatives and friends of Sir John Franklin this seemed a surprising and suggestive fact. Could it be that the freedom and security with which the whalers sailed the Polar seas was due to the thorough knowledge of ice navigation acquired by many years' experience of the winds, currents, and general hydrographical conditions which usually prevail within the Arctic circle? This indeed seemed to be the case, and the Admiralty, having resolved to send out another expedition in the spring of 1850, for the purpose mainly of searching the shores of Wellington Channel, decided to give the command of it to a whaling captain of ability and ample experience. Captain William Penny, of the "Advice" of Dundee, was the navigator appointed as being best qualified to take the command of the new expedition.

Acting on the instructions of the Admiralty, Penny purchased two new clipper-built vessels; one of 200 tons, built at Aberdeen, and which he named the "Lady Franklin," the other, of 100 tons, built at Dundee, and named the "Sophia," after Miss Sophia Cracroft, niece of Sir John Franklin. Mr R. A. Goodsir sailed as surgeon in the "Lady Franklin," and Mr P. C. Sutherland in the same capacity in the "Sophia," which was under the command of Mr J. Stewart. The two ships were towed out from Aberdeen harbour, where both had been equipped, on the 13th of April 1850. The voyage across the Atlantic was rapid and favourable, and on the night of May 2d, Leively, the Danish settlement on the south shore of the island of Disco, was reached. On June 3d, after prolonged detention among the land-ice of the Greenland coast, the ships had advanced northward to within a few miles of Sanderson's Hope. Here an Eskimo came alongside in his

kayack, and informed the explorers that no ships had been seen on the coast since the whalers and the Danish vessels had left it last year. On arriving at Uppernavik on June 5th, Captain Penny went on shore and succeeded in engaging Mr Petersen, who was acting in the capacity of assistant governor of the settlement, to accompany the expedition as interpreter. During the month of June, the progress of the vessels northward along the west coast of Greenland toward Melville Bay was provokingly slow and unenlivened by adventure or noteworthy incident. On July 2d, the "Lady Franklin" and "Sophia" passed the Arctic searching expedition, under the command of Captain Austin, in the neighbourhood of Cape Shakleton. It was not till August 14th that Captain Penny passed Melville Bay, and had steered his vessels close in with the land between Cape York and Cape Dudley Digges. On the 18th, the fog that had prevailed for many days cleared away, the sky brightened, and an east-south-east wind, favourable for crossing over to Lancaster Sound, sprang up. "Our studding-sails were set," writes Surgeon Sutherland, "and as our neat little ships scudded before the increasing breeze, there was nothing to cast the slightest gloom upon our bright prospects of being soon in the spot where our services would be called into requisition." Soon the dark coast from Cape York northwards began to fade in the distance astern, while the Carey Islands rose up from the sea in the distance ahead. "At four o'clock in the evening," continues Sutherland, "as the Carey Islands were sinking rapidly in the eastern horizon, the west side of Baffin Bay, on the north side of Jones Sound, was seen, and for this part our course was shaped with the view of exploring it and of passing through it into the Wellington Channel." At nine o'clock the vessels were within about sixteen miles of the land opposite the entrance into Jones Sound. The inlet, however, was found to be full of heavy ice, which, so far as could be seen from the crow's-nest, presented no opening leading westward into the sound. The close state of the ice in the inlet, taken in connection with the advanced period of the season, was regarded by Captain Penny as a sufficient reason for altering his plan and steering straight for Lancaster Sound. On the morning of the 19th, two small ships were sighted bearing the American flag. These proved to be the schooners "Advance" and "Rescue" (Commander De Haven), which had been sent out by sympathisers in America to search for Sir John Franklin. On the morning of the 20th, while the vessels, sailing southward along the coast of North Devon, were nearing the entrance to Lancaster Sound, the wind blew from the east with terrific violence. In the afternoon, Captain Penny was obliged to heave to off Admiralty Inlet, a short distance within the entrance and on the south side of the sound. On the following day he sailed northward toward the North Devon shore, and had the fortune to fall in with the "North Star" (Commander Saunders). Mr Saunders was beset among the

ice on the 30th July 1849 in Melville Bay, and had drifted about in every direction, until, on the 30th September, he got into winter quarters in Wolstenholme Sound (lat. $76^{\circ} 33' N.$, long. $68^{\circ} 56' W.$). Here he remained until the 3d August 1850 (eighteen days before his meeting with Penny), when, struggling out of Wolstenholme Sound, he sailed westward with the object of carrying out his instructions to search for Franklin's and Sir James Clark Ross's expeditions. Saunders examined Possession Bay, and thence proceeded up Lancaster Sound to Whaler Point. He examined Point Leopold and found that the stores which had been left there by Sir James Ross were safe. The crew of the "North Star" had suffered much during their long detention in Wolstenholme Sound—one of the most northerly localities in which any vessel ever wintered. "Some of them appeared to be emaciated," writes Dr Sutherland. "The Arctic winter had taken effect upon them, and had told its tale upon their constitutions. They were one hundred and sixteen days without the sun. The minimum temperature was $-63\frac{1}{2}^{\circ}$ (or $95\frac{1}{2}^{\circ}$ below freezing point) on the 24th February—one of the lowest degrees of natural cold ever observed. They seemed to have no objections to their orders to return to England."

On the 22d August, Captain Penny, sailing westward along the north shore of Barrow Strait, took observations in lat. $74^{\circ} 27'$, long. $86^{\circ} 27'$. On the 23d, after standing off for some hours to the south-west to examine the state of the ice in the vicinity of Leopold Island, and having reached to within fifteen miles of the island, Penny encountered a stream of ice, and was obliged to alter his course—not, however, until he had obtained a clear view of Cornwallis Island and Cape Hotham. On the 24th, he plied westward along the north shore of Barrow Strait, passing Cape Hurd, Radstock Bay, and coming within sight of Cape Ricketts, Caswall's Tower, and Gascoyne Inlet on the south-west shores of North Devon. Three ships were observed off Cape Hurd. On the 25th, Cape Riley and Beechey Island were reached. "The Wellington Channel," says Dr Sutherland, "was opening out to our view, and we could see the three ships already alluded to endeavouring to get to the westward. . . . The small ship we had seen on the morning of the 19th belonged to the American expedition. She had parted company with her consort during the gale of the 20th. . . . The 'Lady Franklin' was visited by a boat from her, to make inquiry whether we had seen her consort coming up the sound, *and to report that traces of the missing ships had been found at Cape Riley* by the 'Assistance' and the 'Intrepid;' but they were of a very doubtful nature, and it was impossible to arrive at any conclusion with regard to them, except that they proved that the ships of the missing expedition, or parties from them, had been at Cape Riley, and also at Beechey Island. . . . At two o'clock Mr Penny went on board H.M.S. 'Assistance,' which by that time was closely beset. On his return to the

'Lady Franklin,' we all learned that the 'Assistance' had found traces of the missing ships at Cape Riley and Beechey Island, *but of such a nature as not to leave the slightest impression on the mind at what time or under what circumstances the expedition had been there.*" In the evening Captain Penny cast loose, and steered toward the eastern side of Wellington Channel, along the edge of the fixed ice, which was hummocky from recent pressure. At one o'clock A.M., on the 26th, the ships were made fast to the floe. Afterwards, Mr Penny and Mr Stewart, who commanded the "Sophia," accompanied by Mr Goodsir and Mr Petersen the interpreter, went ashore to explore the coast northward from Cape Spencer, on the east side of the entrance to Wellington Channel. At six in the evening the party returned, bringing with them indubitable traces of large parties belonging to the missing expedition. The site of an encampment was discovered at the distance of about six miles north of Cape Spencer. Here there was a hut built of, and neatly paved with, stones. It was four feet high, and twelve feet in diameter. On one side of it was a recess which had evidently been used as a fireplace, from the ashes and the *débris* of ancient feasts it contained. "A great many articles," says Sutherland, "were brought off by the party. These included soup canisters, some of which had been used as cooking utensils, while others had the labels entire. 'Goldner's Patent'—a variety of preserved meat which had been furnished in large quantity to Franklin's expedition—was a very common form of label; and there was one bearing the name 'Mr M'Donald,' written in a business style. Some of them—the canisters—were a good deal corroded, especially where the paint had been removed in the opening, which in most cases appeared to have been very roughly performed. . . . There were pieces of oak, such as staves of small casks; the end portions of a small cask, with the words 'mixed pickles' scratched on them; also larger pieces of oak, such as might have been procured by splitting up the knees or the doubling of a ship, and they were charred at the ends as if they had been in the fire; the bones of birds also a little burned; but there were no beef bones; part of the leaves of a book (MS.), with some markings on them, and a part of a newspaper bearing date September 1844; portions of rope, very much chafed, but easily distinguished as belonging to the Royal Navy by the *middle yarn*; also torn mittens, cotton rags, and blank paper, all of which the wind had driven beneath the stones. The wall of the tent or hut had been rendered impervious to the wind, by the interstices being packed up with moss and bits of paper. Mr Petersen said it was about four years since the hut had been built, from the appearance which everything connected with it had assumed by the action of the weather. In this respect Mr Petersen's opinion would be of great value, as it could be relied upon, from his extensive experience within the Arctic circle. There were a few handfuls of coals in the fireplace, together

with birds' wings, tails, heads, feathers, and bones, some of which appeared evidently to have been in the fire. The track of a sledge was discovered, and the marks of the runners, which were very distinct, were found to be two feet apart."

The large body of relics thus discovered by Captain Penny were held to be incontestible proofs of two facts: that parties belonging to the "Erebus" and "Terror" had lived here for a considerable time, and that the period at which they did sojourn here was about 1846, or four years before the discovery of the encampment. These facts having been so far established, many inferences were deduced from, and many opinions based upon them. With these we have now nothing to do. It is sufficient here to chronicle the fact that what the officers of the "Assistance" failed to establish from the inspection of traces of Franklin at Cape Riley and Beechey Island, Penny clearly enough established from inspection of the deserted encampment six miles north of Cape Spencer. The former arrived at no conclusion as to "what time, or under what circumstances, the expedition had been" at the localities examined by them; the latter had already discovered that the expedition had been there in 1846, and he was now on the eve of discovering under what circumstances the sojourn was made. Having resolved to thoroughly examine the coast to the north and south of Cape Spencer, he gave orders not to make sail from the neighbourhood during the night. Sailing southward next morning, Penny reached a floe fixed in a bay between Cape Spencer and Beechey Island, to which he secured his ships. Here the "Felix," under the veteran Sir John Ross, who had come out to join in the search, and the two vessels of the American expedition, had already been moored. To the commanders of these ships Penny at once communicated the results of his gratifying discovery; and immediately afterwards he sent away a party to Beechey Island, under command of Mr Stewart of the "Sophia," in search of further traces. The search was highly successful. Mute relics were found in abundance; but no written document, no record to tell the searchers when their missing countrymen were there, or whither they went when they left the island. Sutherland tells us that among the articles found were tin canisters in hundreds; pieces of cloth and rope; wood, in large fragments and in chips; pieces of iron around the spot where the anvil had stood, together with the block that supported the latter; paper, it seems, both "written" and "printed," but affording no intelligence. Along the northern shore of Beechey Island the embankment of a house, a carpenter's and an armourer's "shop," and—saddest memorial of all—the graves of three men belonging to the ships, who had died here early in 1846, and above whose last resting-places oaken headboards with inscriptions had been raised by their comrades. The inscriptions on the headboards are as follow: "Sacred to the memory of John Torrington, who departed this life

January 1st, A.D. 1846, on board H.M. Ship 'Terror,' aged 20 years ;" "Sacred to the memory of John Hartnell, A.B., of H.M.S. 'Erebus,' died January 4th, 1846, aged 25 years. Haggai, c. i., v. 7, 'Thus saith the Lord of Hosts, Consider your ways ;'" "Sacred to the memory of Wm. Braine, R.M., of H.M.S. 'Erebus,' died April 3d, 1846, aged 32 years. 'Choose ye this day whom ye will serve,' Joshua, c. xxiv., part of 15 v." Death claims his own in every quarter of the world :

"And here and there a churchyard grave is found,
In the cold North's unhallowed ground."

Of these graves, pathetic in their simplicity, the late Sherard Osborn, who had himself carefully examined them in 1850, thus writes : "The graves next attracted our attention ; they, like all that English seamen construct, were scrupulously neat. Go where you will over the globe's surface—afar in the east, or afar in the west, down amongst the coral-girded isles of the South Sea, or here where the grim north frowns on the sailor's grave—you will always find it alike ; it is the monument raised by rough hands but affectionate hearts over the last home of their messmate ; it breathes of the quiet churchyard in some of England's many nooks, where each had formed his idea of what was due to departed worth ; and the ornaments that nature decks herself with, even in the desolation of the frozen zone, were carefully culled to mark the seaman's last home." From the dates on these head-boards it is abundantly evident that the "Erebus" and "Terror" had wintered off the north shore of Beechey Island. Captain Penny, therefore, to quote again the words of Sherard Osborn, "ascertained the first winter quarters of Sir John Franklin's squadron."

Besides the site of a large store-house and workshop found along the north shore of the island, smaller sites, supposed to have been those of observatories and other temporary erections, were also noted. Coal-bags containing small quantities of patent fuel were found scattered about. "The meat tins," says Sutherland, "were piled in heaps in the same regular manner in which shot is piled up. Each had been packed with loose shingle, and when the tiers of a single layer were completed, the interstices were filled up with shingle. In this way several mounds were raised to a height of nearly two feet, and they varied in breadth from three to four yards." The number of tins in the mounds was computed at six or seven hundred, but many more were dug up and emptied while the search was being prosecuted. Amid all the searchings, however, no documents were found, and the fate of Franklin seemed mysterious as ever. But though it appeared astonishing to Penny and his brother officers that Franklin should have left his first winter quarters without leaving papers stating by what

route the ships had arrived there, and by what other route they should proceed on leaving the island, there were those who held the missing navigators as in some sort excused for neglecting this ordinary precaution, on the ground that the three graves were sufficient evidence of their having wintered at Beechey Island; while as to the route they were about to pursue, as they could not tell in what direction they should be driven by drift-ice, tide, and wind, they were unable to say anything definite on the subject.

In the evening Penny sent away a boat party under the command of Mr Stewart to examine Gascoyne Inlet and the shores of Cape Ricketts. The boat party landed at Cape Riley, where traces were found, but no documents. Another party was sent on the 30th to examine a cairn that had been seen on the south-west bluff of Beechey Island. The soil was dug up with pick and shovel, but nothing found. About this time it was suggested to open the three graves, and to search these; "but," says Sutherland, "as there was a feeling against this very proper and important step, the suggestion was not reiterated." From this point onward to the spring of 1851, nothing practical was achieved, either in geographical discovery, or in the search for Sir John Franklin. The "Lady Franklin" and the "Sophia" on the 16th September reached their winter quarters in Assistance Harbour, at the southern extremity of Cornwallis Land, from which they were destined not to be freed for nearly a year.

CHAPTER III.

PENNY'S SEARCH AND DISCOVERIES IN WELLINGTON CHANNEL.

THE main object of Penny's expedition was to prosecute the search for Franklin in Wellington Channel, and it was with the view of carrying out his instructions to that effect, that he organised a number of sledge expeditions to examine the shores of the great channel in the early summer of 1851. During the first week of May, six sledges, manned by over forty officers and men, and including the captain, were actively engaged in this search. Leaving Assistance Harbour, the winter quarters of the "Lady Franklin" and "Sophia," the different sledge parties proceeded north in company to latitude about 75° , where it was arranged two sledges should cross over to and examine the east shores of Wellington Channel, two more should continue the search northward along its western shores, while the third sledge party under Penny himself should strike off across the frozen inlet in a north-west and north direction. Of the journeys of Penny's officers, important as they were as resulting in accurate surveys of the islands and inlets of this channel, and thus mapping out the ground for the whaling and sealing vessels, which have never yet failed to follow and to reap splendid harvests in the wake of Arctic discovery ships, it is needless here to make more than passing mention. Chief of these sledge excursions was that commanded by Penny himself—an excursion in the course of which the old captain was fortunate enough to achieve a number of surprising and valuable discoveries.

On the 5th of May the sledges and men had gone on in advance, to travel northward along the east coast of Cornwallis Island, to be afterwards joined by Penny at the advance depôt situated about forty-five miles north from the ships' quarters in Assistance Harbour. On the 9th May, Captain Penny, accompanied by Mr Petersen, the interpreter, and two seamen, left the ship at four A.M. with two dog-sledges, and after travelling eight hours, arrived at the advance depôt. No time was lost. The sledges were filled up out of the depôt—to which stores had been conveyed during the previous month—and at eight P.M. the whole force started northward. Penny accompanied them along the land, and parted with the three sledges that were to

cross the channel to the east side. At eleven P.M. Penny started again, and having advanced six miles farther—in all fifty-one miles from the ships—he encamped on a low flat point, which he named Point Petersen, and took his first night's rest. "At half-past six P.M. (on the 10th)," writes Penny, who had been detained all day, through having met Surgeon Goodsir who had finished a most laborious journey—"we started from Point Petersen, and had a splendid drive, passing a deep bay, which I named after Dr Kane, *a highly intelligent medical officer in the American expedition.*" [In paying this deserved compliment, Penny little imagined that after a year or two Dr Kane would be the conductor of one of the most remarkably exciting, as well as scientifically important, Polar expeditions that ever set sail from any shore.] On the 10th the distance travelled by Penny was about thirty miles. On the route the captain and Petersen suffered much from pain in the eyes, and a bay which they passed toward the close of the day's journey they named Snowblind Bay. The encampment was made on the north-east point of Cornwallis Island. The point "forms the northern boundary of Wellington Channel on this (the western) side." Penny named it Cape de Haven, "out of compliment to the commander of the American expedition (the 'Advance' and 'Rescue'), that so nobly came out in search of our lost countrymen." From this cape the land trends away to the westward and northward for ten miles, when there is another point. On the 11th Penny and Petersen were snowblind and unable to proceed, and on the 12th the sunshine was so bright, and the glare of the snow so powerful, that the travellers could not start till after seven in the evening. Passing round Cape de Haven, Penny pushed on to the point ten miles north-west of it. "At this point," writes Penny, "I ascended a hill about four hundred feet high, from which I could see land stretching from the opposite side of the Wellington Channel northward to a point bearing about north-east, and appearing to be continued north-westward, as if it should join the land on which I stood, which stretched away about north-west. There was, however, a space to the eastward in which the land was lost sight of. Here, as well as between the points north-east and north-west, there might be openings out of this newly-discovered sea. I came to the resolution of proceeding (over the frozen channel) northward, leaving instructions for Messrs Marshall and Goodsir to continue along the line of coast leading to the north-westward." The point from which Penny had this splendid view of a sea that had hitherto had no name among civilised men, he named Point Decision, from the circumstance that it was here he had decided upon his subsequent route. Fired by his important discovery, Penny gave orders to proceed, though the time was now about midnight, and a howling, blood-curdling blast laden with snow blew from the north-west right in the teeth of the advancing sledges. Petersen had warned Penny that the dogs could not

face the bitter tempest ; but, says the captain, "nothing would satisfy me but to start, and after proceeding about two miles we were obliged to return and encamp." Detained for a time by bad weather, Penny again started at five P.M. on the 14th, and, after travelling from twenty-five to thirty miles, "running after the sledges a great part of the way," encamped. A large island, bearing north-west from the encampment, the discoverer named Hamilton Island. Starting at one P.M. on the 15th, the travellers drove twenty miles in a straight line, and reached Hamilton Island. "The moment we landed," says Penny, "I set out to a bold headland, or I should say rather, the south-east point of the island ; but I found no traces of the missing ships. From this my inference was, that Sir John Franklin had kept along the *north land* which I saw from Point Decision." He named the south-east point of the island Cape Washington, and the channel between it and Cornwallis Island, South Channel.

The discoverer was now in the midst of a region unknown in the geography of his time. It was, therefore, with the closest attention and the keenest curiosity that he noted each striking or peculiar feature. He observed that the ice in South Channel, between Hamilton Island and Cornwallis Island, was much decayed, that it was traversed by large lanes of water, and, under condition of temperature two or three degrees more favourable, would actually be a navigable passage. Away twenty miles to the westward he descried two islands, the nearest of which he named Stewart Island. He observed also that here the compass had become exceedingly sluggish, and he was therefore obliged to depend wholly on the sun in laying down his courses and bearings. He made the circuit of Hamilton Island, carefully looking for the landmarks, cairns, flagstaffs, etc., which every explorer is instructed by the Admiralty to erect along every newly-discovered route ; but he saw none. At midnight, Penny and Petersen, having passed and named Cape Scoresby and Haddo Bay, pushed on for a headland several miles north-westward, "making sure," writes the captain, "that we should find traces of the missing ships in the shape of a cairn. The point is a very low one, and there was immensely pressed-up ice upon it. But lo, and behold ! to our surprise a strait, and nothing but *clear water*, opened out before us. The tide seemed to be going at a rapid rate—I should say not less than four knots. The channel or strait is about eight miles in breadth, and ten miles in length from east to west." Away thirty miles to the westward was an island which he named Baring Island, and to the north and north-east land could be seen at a distance of about twenty miles. This coast he named Prince Albert Land. No cairn was found on the headland from which the open sea and the strange coasts were seen, and standing upon it, "the expression that escaped me," says Penny, "was—'No one will ever reach Sir J. Franklin ; here we are, and no traces are to be found.'" The

expression was perhaps a little hasty. Penny had discovered open water where no open water was formerly believed to exist. He had also on the same day seen flocks of birds in a latitude which he had formerly believed to be destitute of animal life. There might yet be other surprises in store for him. After the excitements of the day, the discoverer pushed himself into his sleeping-bag, and had eight hours' comfortable repose. The encampment was in latitude about 76°.

How the discovery of open water far to the north of the barrier of ice that closed up the southern reaches of Wellington Inlet affected Captain Penny's plans, may be learned from the following extract from his journal: "Sir James C. Ross said he would give one thousand pounds for ten days' provisions; I certainly should have given five thousand pounds for a boat to follow up the search for Sir J. Franklin. How pleasant to the eye it is to see the blue open water! Mr Petersen and I set out again for Point Surprise, and while I was laying down the points and islands by the compass card and the sun, I sent him back to let Thomson, our only attendant, see the expanse of water from this point, whence only the strait could be opened out. As we were thus employed going back and fore, and making a tracing of the coasts, two walruses sailed passed upon a piece of ice, at the rate of at least three knots. Two eider ducks and some burgomasters flew past at the same time. Here we had creatures that we could only have expected ten degrees farther south, at such an early date! *I shall never plume myself upon experience again.* Light ice and twenty-five miles (all the way to Baring Island) of open water, and from the appearance of the sky at least twenty-five miles more beyond the north point of the strait. To have proceeded *northward* (*i.e.*, by land), could only be accomplished by making a very large circuit, and for this we had but barely two days' provisions for the dogs. Our own provisions might last for twelve days; but should we be under the necessity of serving it out to eighteen or twenty ravenous dogs, it would certainly not last three days. We might shoot seals, and walruses, and birds in the water; but when was the boat to pick them up in such rapid tides! No alternative remained but to return to the ships, and see if, by any means, a boat could be got into the open water, which was so unexpectedly discovered. At 9.30 P.M. (17th May) we started for the ships."

The return to the ships was a race rather than a deliberate journey. The season was wearing on, and besides, hunger was following in the wake of the party. The pace was so hard that on the first day one of the dogs gave in, and was shot by Penny, who was actuated by the double motive of ending the animal's sufferings and using its carcass as food for the rest of the starving team. But hungry as the dogs were, they would not touch the flesh of their late companion. In this pell-mell retreat, bipeds suffered as well as quadrupeds. Both Penny and Petersen were much exhausted on the even-

ing of the 18th, "but," says the gallant captain, "had we been advancing instead of retreating, I do not believe we should have felt the fatigue nearly to the same extent." But they were hurrying on to winter quarters, where food and rest awaited them. "The very dogs," writes Penny, "knew they were going home. Poor brutes! they had nothing to eat for the last twenty-four hours. Had any member of the Royal Humane Society seen us, I fear very much our conduct would not have met with his approbation, for it did not meet with our own; but necessity has no laws, and no human foresight could have informed us that we should not have got a bear where so many were seen. In a hunt which I had after one, in which I was assisted by the dogs, I ran until sheer exhaustion brought me to the ground. I was never so disappointed with the loss of a whale worth a thousand pounds as with the loss of that bear!" On the 19th Mr Petersen's sealskin dress was divided among the voracious dogs, and eagerly devoured. On the evening of the 19th—Penny was travelling by night, to avoid the snow glare—the sledges were started, though everything was enveloped in a whirling snow-drift; "nevertheless, on we went," says the captain, "although the dogs had eaten nothing for two days, with the exception of Mr Petersen's dress." The ships were reached at eight p.m. of the 20th, and soon afterwards the ship's carpenter was busy constructing a sledge, on which the largest six-oared whale-boat of the "Lady Franklin" was to be dragged along the shore of Wellington Channel to the open water; while the sailmaker of the "Sophia" was employed in getting ready a housing-cloth for the boat, for Penny was determined that his crew should have no other shelter. The sledges and boat were ready on the 4th June, and on the evening of that day they were sent forward. At midnight on the 10th, Penny started to follow, and in three hours came up with his sledge-party. Working their way laboriously along the land-ice of the east coast of Cornwallis Land, they were surprised to hear voices inshore. Crossing from the ice to the land, Penny discovered that the hail he had heard came from Mr Goodsir and his party, who had travelled along the south shore of Queen's Channel to about 97° west. They had found no traces of the missing ships. Each of them got a glass of spirits from the captain, and then, after a pause of not more than ten minutes, each party went its way with a cheer. On the 16th, a herd of deer was seen; and Penny, halting his party, and ordering them to encamp, went away after the game. "After three hours' travelling and running after deer," he writes, "I ascended a high headland, and, behold! the water was within twenty miles of the boat—clear open water!" The wind for the last twenty-four hours had been blowing *down channel*, or from the north-north-west; and the ice had consequently been driven southward, leaving open water away to the far north. Penny returned to the encampment, and put himself into his sleeping-bag without saying a word about what he

had seen. Next morning the encampment was roused by a frantic shout of "The water! the water!" raised by the first man that had turned out. At this shout every man sprang up. The sea was now seen at the distance of less than ten miles, bearing west-north-west from the encampment. The explorers reached it, and the boat, loaded with forty days' provisions, was launched at five P.M. The fatigue party that had helped to bring on the boat and sledges was sent back with the dogs to the ships; and Penny, again upon his element, and exulting in the chance that at last had been given him, close-reefed his sail, and began to beat up against the adverse wind that blew strong from the west-south-west. Late at night, a gale sprang up from the west, and Penny was obliged to bear up for a bay on the south shore of South Channel. On the 18th, it blew a perfect gale, and the people were kept under cover of the housing-cloth. The wind drove the ice into South Channel, and packed it to the distance of twenty miles west. For several days the party were confined by gales to the bay in which they had taken refuge; but on the 24th they succeeded in crossing over to Hamilton Island, the whole of which they carefully surveyed on the following day, but without finding any traces of Franklin's ships. Again there came a succession of storms from the west, preventing Penny from proceeding a mile in the one direction in which he was most anxious to proceed. Daily disappointment was now varied only by the thrilling excitement of awful dangers. On the 30th June, Penny had hauled up his boat at an unpromising spot about four miles from Cape Fitzjames, on the coast of Hamilton Island. On one side of the landing-place was a perpendicular, snowy cliff, on the other was the shore ice, pressing up and squeezing in two fathoms water with a loud grinding noise, and tumbling over in huge blocks at no great distance from the spot on to which the boat had been hauled. On July 2d, Penny writes: "The first few hours of morning we had a partial breeze from the eastward, which brought the ice out of the channel. It came tearing along the land at a fearful rate, turning up immense hummocks in its progress. I felt very restless, and could not sleep. The boat began to move a little. I took it into my head that there was a bear outside. My hand was upon my pistol, and all ready for action; I put out my head beneath the lower edge of the covering of the boat, and it was well I did so at the time, for immense hummocks were tumbling over and over with the pressure within a few yards of us. No one waited to put on his clothes, for each flew to the provisions, and conveyed them up to the face of the precipice, and then to the boat, to attend to its safety. The ice on which it rested was broken into several pieces, and thrown very much from its level by the pressure among the hummocks around it. In the middle of the channel it was truly fearful, and could be compared to nothing but an earthquake. Some pieces were rising to a height of twenty feet, and tumbling down with tremendous crash-

ing and rending. We again turned in beneath our covering, but little sleep was obtained, for *every one was peeping beneath the housing-cloth.*"

What need further to chronicle a search that was fruitless—a cruise that consisted only of successive attempts to penetrate westward, rendered abortive by head-winds and drifting ice? Captain Penny had, in the autumn of 1850, discovered what were indubitably the first winter quarters of the "Erebus" and "Terror;" and in his boat expedition up Wellington Channel, he had examined and surveyed the upper reaches of that passage, had discovered and named Hamilton and Baring Islands and Queen Victoria Channel, extending away westward from Wellington Channel, and having Albert Land on its north-east, and Queen's Land on its south-west sides. But here the success of the boat expedition ended. Every coast visited was carefully examined and surveyed with approximate accuracy; but no cairn or other trace of the missing expedition was seen. Every day Penny and his men heroically struggled on in the "imminent deadly breach" between battling floes, or between the churning drift-ice and the cliffs of the shores; but to no avail. It was now the 20th July, and the party had only a week's provisions left. Would it be prudent to continue the voyage—to proceed further, and exhaust the supplies that already were too scanty to keep his men up to working power on the return journey to the ships? There could only be one answer; so, on the morning of the 20th, after worship, the party set out on their return to winter quarters. On the 22d, the boat, which was felt to be a terrible encumbrance, was abandoned, and the men started to travel along the coast of Cornwallis Island to Assistance Harbour—a distance of upwards of 100 miles. With infinite labour and suffering this journey was accomplished by midnight of the 25th July.

On the 11th August, Captain Penny and Captain Austin held a consultation as to what ought now to be done. Penny believed that the "Erebus" and "Terror" had taken the route up Wellington Channel, and he declared himself ready to propose a "continuance of the search by means of one of Captain Austin's steamers and the 'Sophia' through Wellington Channel, as soon as the ice in that channel should open." On the other hand, Captain Austin stated that had he done exactly what Captain Penny's expedition had done, and were he placed in Captain Penny's position, he should not hesitate to conclude at once that the search for the missing ships need not be prosecuted to the north-west of their winter quarters at Beechey Island—a direction which he believed they had never taken. The result of the consultation is recorded in Sutherland's journal as follows: "After the heads of the expeditions had considered matters fully, we were given to understand that little remained to be done but to proceed to England. Captain Austin was satisfied that the missing expedition need not be searched for to the due west or north-west; and Mr Penny, uncertain whether they had proceeded

up the channel, could hold out no hopes of our being able to accomplish anything to compensate the almost inevitable risks of a second winter."

It has often been stated that the refusal of Captain Austin to place one of his steamers at the disposal of Captain Penny, was the occasion of a more or less serious altercation between these officers. There is little ground for this opinion. Penny's instructions to return home in 1852 were peremptory, and therefore to stay out another winter, with the view of sailing northward through Wellington Channel, into the supposed Polar Sea beyond, in one of Austin's steamers, was what he was not at liberty to do, even had Austin agreed to the proposal. That officer, however, did not, and could not favour any such proposal, as he was convinced that Franklin had not taken the route up Wellington Channel. But without Austin's co-operation, Penny, whose own resources were dried up, could effect nothing by remaining out another year. It is not surprising, therefore, that Captain Penny, in reply to frequent solicitations from Captain Austin, with respect to the further prosecution of the voyage, wrote a note stating that he had accomplished all that could be necessary within the limits of Wellington Channel, and adding a question—"What more could be done?" Yet he had every reason to be satisfied with the results of his voyage, which, whether considered with reference to discoveries in connection with the missing expedition, or to geographical discoveries, must be regarded as the most successful of the search expeditions hitherto undertaken.

On the 12th August, the "Lady Franklin" and "Sophia" moved slowly out of Assistance Harbour on the homeward voyage, and at three P.M. on the 21st September they dropped anchor off Gravesend. The world had reclaimed them. "We knew," says Sutherland, in conclusion, "that on the following day we should reach our destination, and be paid off then, or as soon as possible thereafter. In the meantime, however, the rows of lamps, the rolling sounds of carriage wheels, and the well-known sound of the chain upon the windlass as the anchor went down, all spoke loudly in our ears that our voyage in search of the 'Erebus' and 'Terror' and their gallant crews was at an end."

CHAPTER IV.

SEARCH EXPEDITION UNDER CAPTAINS AUSTIN AND OMMANNEY IN THE
"RESOLUTE" AND "ASSISTANCE."

THOUGH the Government in 1850 wisely resolved to enlist the knowledge and experience of the chief of the whaling captains of the period in the search for Franklin, Penny's expedition in the "Lady Franklin" and "Sophia" was regarded as merely supplementary to the great naval expedition sent out under Captains Austin and Ommanney in the same season. Horatio Thomas Austin entered the navy in 1813, served in the American war under Hardy, and gained fruitful experience of Arctic navigation when serving as first lieutenant in the "Fury" (Commander Hoppner) in Parry's third Arctic voyage in 1824-25. Recommended for Arctic service by his old captain, Sir Edward Parry, Austin was appointed to the command of the great expedition of 1850, consisting of four vessels—the "Resolute" and "Assistance," with their tenders, the "Pioneer" and "Intrepid," both screw steamers. The "Resolute" and "Assistance" were sailing ships rigged as barques, the former 410 tons and the latter 430 tons burthen, and each carrying sixty officers and men. The steamers "Pioneer" and "Intrepid" were sister vessels of 400 tons, with screw propellers of 60 horse-power, and rigged as three-masted schooners. Captain Austin, the commander of the expedition, hoisted his flag in the "Resolute," and was supported by Captain Erasmus Ommanney in the "Assistance;" the "Pioneer" was commanded by Lieutenant Sherard Osborn, and the "Intrepid" by Lieutenant J. B. Cator. This expedition, the most complete and effective that had ever left the British shores for the Arctic seas, was fully provisioned for three years. The ships sailed from England on the 3d May 1850, passed Cape Wrath on the 15th, and after a prosperous voyage across the Atlantic, reached the Whalefish Islands, to the south of Disco, on the 16th June. Resuming the voyage on the 25th, the ships proceeded northward past Disco and Uppernavik. Writing on the following day, the 26th, Sherard Osborn, commander of the "Pioneer," thus reports progress: "In the first watch, the 'Lady Franklin' and 'Sophia' were seen by us fast between loose flat pieces,

to seaward of which we continued to flirt. The 'Intrepid' and 'Pioneer' were now to be seen trying their bows upon every bit of ice we could get near without getting into a scrape with our commodore, and from the ease with which they cut through the rotten stuff around our position, I already foresaw a fresh era in Arctic voyaging, and that the *fine* bows would soon beat the *bluffs* out of the field."

On the 1st July, Captain Austin signalled the screw steamers to "take ships in tow." There was a lane of open water leading northward, "and," says Osborn, "with a leaping heart we entered the lead, having the 'Resolute' fast by the nose with a six-inch hawser. What looked impassable at ten miles distance," continues the commander of the steamer, "was an open lead when close to. Difficulties vanish when they are faced, and the very calm which rendered the whalers unable to take advantage of a loose pack was just the thing for steamers. Away we went past berg, past floe, winding in and out quietly yet steadily, and the whalers were soon astern. Penny, the indefatigable, was seen struggling along the shore with his boats ahead, towing, and every stitch of sail set to catch the slightest cat's-paw; we soon passed him too. The water ahead increased as we advanced, and we found, as is well known to be the case, that the *pack-edge* is always the tightest part of it." The neighbourhood of Devil's Thumb was reached on the 4th July, and on Sunday the 7th, Lieutenant Osborn entertained Captain Stewart of the whaler "Joseph Green," to dinner in the "Pioneer." Captain Stewart, father of the commander of the "Sophia" in Penny's expedition, was a most interesting personage in the eyes of the officers of the "Pioneer." His racy sketches of life on board a whaler were in no small degree fascinating to his naval hearers, and it was not without a certain degree of awe that they gazed upon a man who assured them that "he had not seen corn grow, nor eaten fresh gooseberries, for thirty years! although he had been at home every winter." He was now advanced in years, yet he spoke with the enthusiasm of youth about the excitement and the perils of his calling. "We are the only people," he said, "who follow the whale and kill him in spite of the ice and cold." Osborn was proud to recognise a brother seaman in such a hardy and gallant old sportsman of the deep. "This worthy old Scottish fisherman," Osborn informs us, "perished next year off Spitzbergen. His ship was caught between two fields of ice, and as she was sinking, he rushed down to save a sick sailor, and sank with the ship that had so long been his home."

The power and value of steam in ice-navigation was clearly demonstrated for the first time in the expedition under consideration. When the *whalers* found it impossible to advance, Osborn and Cator, in the "Pioneer" and "Intrepid," were always able to make some progress. They charged floes six inches thick, and pushed, without apprehension, into old and decayed ice of

much greater thickness. After charging an ice-barrier ineffectually, they reversed the engines, drew back a short distance, and then, putting on full steam, rushed forward again to deliver a second blow—often with the desired effect. The whalers were all delighted with the performance of the steam vessels in the ice; and it was acknowledged that the employment of the screw propeller marked the commencement of a new era in Arctic navigation. Captain Penny candidly confessed that he never thought the screw steamers would have answered so well, and regretted that he had not had a steam vessel. “Our seamen,” says Osborn, on the 11th July, “fully appreciated the good service the screw had done them; they had now been eleven days in the ice, during every day of which period they had witnessed it working effectually under every circumstance. They had seen the crews of the whalers labouring at the track-line, at the oar, and in making and shortening sail, both by day and by night, whilst our crews had nothing to do beyond taking the ships in tow and casting them off again.” But the ships referred to, the “Resolute” and “Assistance,” were wretched sailers. They had been filled up with dead wood—by way of strengthening them against the ice—until they lay like logs on the water, and, even under fairly favourable conditions, could not be dragged by the steamers at a rate much quicker than three knots an hour. Being thus heavily handicapped, Osborn and Cator found that they worked under great disadvantages, and that the whalers, which were handled with the utmost skill and daring by Penny and his fellow captains, made as rapid progress as the captains of the naval squadron. But for being hampered with the “Resolute” and “Assistance,” the steam vessels might have made a comparatively early passage northward, between the sea and land ice of Melville Bay. As it was, they were continually delayed and exposed to the danger of being nipped in the enclosing ice. Between the 20th and 31st July, only seven miles had been made in the right direction. Little or no progress was made during the first week in August. At length, on the 9th, Penny’s squadron having gone on in advance, in a lake of water toward Cape York, the wedge-bow of the “Pioneer,” with full steam on, was brought to bear upon the ice. “In one hour,” writes Osborn, “we were past a barrier which had checked our advance for three long weary days. All was joy and excitement; the steamers themselves seemed to feel and know their work, and exceeded even our sanguine expectations; and to every one’s delight, we were this evening allowed to carry on a system of ice-breaking, which will doubtless, in future Arctic voyages, be carried out with great success. For instance, a piece of a floe, two or three hundred yards broad, and three feet thick, prevented our progress; the weakest and narrowest part of it being ascertained, the (sailing) ships were secured as close as possible, without obstructing the steam vessels, the major part of the crews being despatched to the line

where the cut was to be made, with tools and gunpowder for blasting, and plenty of short hand-lines and claws. The 'Pioneer' and 'Intrepid' then in turn rushed at the floe, breaking their way through it, until the impetus gained in the open water was lost by the resistance of the ice. The word 'Stop her! Back turn, easy!' was then given, and the screw went astern, carrying with her tons of ice, which the blue-jackets, who attended on the forecastle and others on broken pieces of the floe, held on by. As the one vessel went astern the other flew ahead to her work. The operation was, moreover, aided by the explosions of powder; and altogether the scene was a highly interesting and instructive one. It was a fresh laurel in the screw's wreath. The gallant 'Intrepid' gave a *coup-de-grâce* to the mass, which sent it 'coach-wheeling' round, as it is termed; . . . and we were next morning in the true lead, and our troubles in Melville Bay were at an end."

It was on the 10th August that Captain Austin's ships succeeded in shaking themselves clear of the ice of Melville Bay. The air was now calm, the water smooth, and the "Intrepid" and "Pioneer" steamed away northward, with the "Resolute" and "Assistance" in tow. Soon the screws overhauled the "Felix," in which Sir John Ross had come out to assist in the search for Franklin, and the "Prince Albert" schooner, which had been sent out for the same purpose, under the command of Captain Forsyth. The steamers took the schooners also in tow, and the whole squadron proceeded northward for some time together. On the 13th Cape York was in sight. In this neighbourhood two precious days were lost in investigating the report of the miscreant Adam Beck, who had completely imposed upon Sir John Ross, with the fantastical story of the burning of two English ships, supposed to be the "Erebus" and "Terror," and the massacre of their crews. As already mentioned, the mischievous story proved, on examination, to be wholly unfounded. On the 15th the "Pioneer," with the "Resolute" and "Prince Albert" in tow, steered away westward, reached the west water, a wide reach of sea unencumbered with ice, and then made for the mouth of Lancaster Sound. Here the "Prince Albert" was cast off to proceed on its way to Regent Inlet, while the "Resolute" and its tender proceeded to Pond's and Possession Bays, the shores of which they searched unavailingly for cairns or other relics that might have been left by the missing expedition. On the 22d the vessels entered Lancaster Sound. The great inlet was regarded with intense interest by the young officers of both vessels. Steering for the north shore, the ships reached Croker Bay, between Cape Warrender and Cape Home, on the 25th; thence they steered for Leopold Island. Driven north by a furious gale, they were sailing westward off Cape Hurd on the 27th, and on the evening of the 28th they had pushed into a passage between Cape Ricketts and Beechey Island, when a boat in sight was reported from the mast-head. The boat carried Captain Stewart

and Dr Sutherland of the "Sophia," and these gentlemen were the first to communicate to Captain Austin and Lieutenant Osborn the stirring intelligence of the traces found on Cape Riley and Beechey Island.

We have been hitherto following the fortunes of the commodore's ship and tender. It is now necessary to revert for a moment to the "Assistance" and "Intrepid." These vessels, after having visited Wolstenholme Sound, entered Lancaster Sound on the 18th August, and passing Cape Warrender, landed at, and named, Dundas Harbour. On the 23d, the "Assistance" and "Intrepid" reached Cape Riley. A boat's crew was sent on shore to erect a cairn on the cape, "and," writes Clements R. Markham, midshipman under Ommanney in the "Assistance," "at this point the first traces of Sir John Franklin were found. Pieces of rope, preserved meat tins, and other remains were strewn upon the beach, while higher up the cliff was a cairn of stones and a few charges of shot strewn about. All this created the greatest excitement, and conjecture was rife as to whence these remains had come; but at length the discovery of the name 'Goldner' marked upon the meat tins—the contractor who had supplied Sir John Franklin with provisions—proved to a certainty that a party from the 'Erebus' and 'Terror' had been at Cape Riley." A cairn was afterwards seen on Beechey Island, and a boat from the "Intrepid" was sent away to examine it. It was soon torn down, every stone of it turned over, and the ground in the neighbourhood dug up, but without result. No record or document of any kind was found. A lead of water now opening up in the direction of Wellington Channel, Captain Ommanney resolved to take advantage of it and proceed westward. His discoveries on Cape Riley were barren as far as he or his officers were concerned. He regarded them as merely the traces of a shipwrecked or retreating party from the "Erebus" and "Terror." Meantime, the clue thus lightly picked up and as lightly let go again was eagerly seized by Captain Penny, who exclaimed that he "would take up the search from Cape Riley like a bloodhound." With what success he prosecuted this search has already been stated in our narrative of the gallant captain's voyage in the "Lady Franklin" and "Sophia." He was, however, materially assisted in his investigations by the officers of Captain Austin's expedition, with the achievements of which we are at present chiefly concerned.

After receiving from Captain Stewart the news of the discoveries on Beechey Island, Lieutenant Osborn steered for Union Bay, where the "Resolute" and "Pioneer" arrived on the 28th August. On the following day Osborn, with a searching party, went ashore to examine Franklin's first winter quarters. He discovered the remains of a garden, oval in shape, and with a border carefully formed of moss, lichen, poppies, and anemones, and afterwards came on the foundation of a storehouse. Still later, he noted an old water-course, now frozen up, and knew from the tubs by its banks that this

was the washing-place of Franklin's men. He picked up a pair of cashmere gloves lying on a patch of level ground, with a small stone upon the palm of each to prevent its being blown away. They had been put out to dry, and had remained as they had been placed for four years. He afterwards inspected the three graves already mentioned, and, walking to the east extremity of the island, he came to where "a very neatly-paved piece of ground denoted a tent place." In a gully near it "a shooting-gallery had been established, the ranges marked off by stones placed at proper distances, and a large tin marked 'Soup and Bouilli,' perforated with balls, had served for a target." He walked out with Captain Penny to examine some sledge marks that had been reported, and found that some ran towards Cape Riley, others swept northward through a ravine towards the interior, "whilst the remainder pointed to Caswell's Tower, a remarkable mass of limestone, which, isolated at the bottom of Radstock Bay, forms a conspicuous object to a vessel approaching this neighbourhood from the eastward or westward." The vicinity of this rocky monument was subsequently examined; but though several cairns had been erected here, no document was discovered. It was agreed that this spot had been one of the stations for shooting wild-fowl and hares. After mentioning these reliquary localities, Osborn says: "I have now enumerated all the important traces left by Sir John Franklin's squadron in its first wintering place. To them at all hours of the day and night parties from the eight vessels in our company were constantly wending their way. Every one felt that there was something so inexplicable in the non-discovery of any record, some written evidence of the intentions of Franklin and Crozier on leaving this spot, that each of us kept on returning to again search over the ground, in the hope that it had been merely overlooked in the feverish haste of the first discovery of the cairns by Captain Ommanney and Captain Penny. One great good, however, resulted from the discovery of these traces—the safe passage of Franklin across the dangers of Baffin Bay was no longer a question. This was a certainty, and it only remained for us to ascertain which route he had taken, and then to follow him."

At this stage of the search, many of the officers of the different expeditions regarded Wellington Channel as being the passage into which Sir John carried his ships after leaving Erebus and Terror Bay, between Beechey Island and the mainland, in which they had undoubtedly been moored during the winter of 1845-46. We have seen that Captain Ommanney had already steered for this channel in the "Assistance" and "Intrepid," and had left the search at Beechey Island to be prosecuted by Penny and Austin. It was in the beginning of September that Ommanney left Cape Riley, and commenced to push westward for the mouth of the channel, at the middle of which he soon arrived, only, however, to be hemmed in by ice. There was every likelihood of the "Assistance" being here crushed to pieces.

Midshipman Markham tells us that every one on board was told off to one or other of the ship's boats, that the provisions were had up on deck, and every preparation made for getting on the ice and deserting the "Assistance" when the last crash should take place. The amenities of the situation were not improved by the presence of a number of bears that now came prowling about the ship on the look-out for seals. Of the sagacity and courage of these animals, Mr Markham was not too much overwhelmed by the peril of his situation to note instances. "On one occasion," he says, "I saw a bear swimming across a lane of water, and pushing a large piece of ice before him. Landing on the floe, he advanced stealthily toward a couple of seals, which were basking in the sun at some little distance, still holding the ice in front to hide his black muzzle; but this most sagacious of bears was for once outwitted, for the seals dived into a pool of water before he could get within reach. On another occasion a female Bruin having been shot from the deck of the 'Intrepid,' her affectionate cub (an animal about the size of a large Newfoundland dog) remained resolutely by the side of its mother, and on the approach of the commander of the 'Intrepid' with part of his crew, a sort of tournament ensued, in which the youthful bear, although belaboured most savagely, showed a gallant resistance, and at length rushing between the legs of the corporal of marines, laid him prostrate on the ice, floored another man who had seized hold of his tail, and effected his escape."

After several days of great peril and anxiety the wind changed, the ice slacked off, and the "Assistance" advanced along the southern shore of Wellington Channel. "The land we now entered upon," says Markham, "was entirely new. Parry indeed had sighted it; but no human being was ever before known to have landed on any part of the coast between Cape Riley and Byam Martin Island. There was therefore all the novelty of a new discovery, as we coasted along the southern shores of Cornwallis Island, and came upon a fine bay which was named Assistance Harbour. "Proceeding to the westward, our progress was stopped by a solid barrier of ice, reaching from Griffith Island to Cape Walker; and here we were joined by the 'Resolute,' 'Pioneer,' the American expedition, and Mr Penny's brigs. The season for work, however, was nearly at an end; the cold was becoming intense, and it was soon found necessary to seek for safe winter quarters. Mr Penny succeeded in reaching Assistance Harbour, where he wintered with Sir John Ross; and our squadron was secured to a field of ice between Cornwallis and Griffith Islands. Thus concluded the working season of 1850. We were now destined to pass the winter further west than any vessel since 1819, and there to prepare for those great efforts for the discovery of Sir John Franklin which were developed during the following spring."

CHAPTER V.

SLEDGE JOURNEYS OF CAPTAIN AUSTIN'S OFFICERS.

IN one respect Captain Austin's expedition was peculiar—it was the first *Government* expedition in which exploring operations were carried on during the autumn, after the vessels had been regularly settled in winter quarters. To work while it is day is absolutely necessary in the most literal sense in these regions, and Government expeditions hitherto accepted without question the previously received belief that no explorer could work after the long Arctic night had set in. Certainly the Hudson's Bay Company's explorers, and conspicuously Dr Rae, continued to labour with about equal success in day and in dusk, and were not quite idle even in dark; but it was left for Captain Austin's officers to demonstrate that the manifold resources and the elaborate equipment of a Government expedition could be turned to profitable account during some of the months in which their predecessors had been content to consider it an impossibility, or at the least an unheard-of innovation, to carry on the work of sledge travelling.

No sooner had the ships become fixed in the ice off Griffith Island, than preparations for sending out sledge parties were commenced. The management of these preparations was entrusted to Lieutenant M'Clintock of the "Assistance," an officer who, by scientifically elaborating the system of sledge-travelling, by due attention to the structure and weight of the sledge, the housing and victualling of the men, etc., has brought this method of exploration to great perfection. Early in the season M'Clintock had urged the necessity of sending travelling parties to forward depôts of provisions upon the routes to be followed by the sledges at a later date, and on the 2d October he started from the winter quarters and established a depôt of provisions at the distance of thirty-five miles westward from the ships, and on the route toward Melville Island. This journey, which lasted seven days, was the first experiment ever made in Arctic travelling during autumn. The mean temperature was 3° below zero, "and," says Markham, "no Arctic voyager had hitherto ventured to dare the rigours of this season." Other parties had been sent out at about the same time. Lieutenant Aldrich went westward to

Somerville Island, and there landed a store of provisions ; while Lieutenant Meham, who had been commissioned to examine the south coast of Cornwallis Island for traces of Franklin, had the good fortune to discover Assistance Harbour, where were Captain Penny's two brigs and Sir John Ross's "Felix" snugly laid up for the winter. The three lieutenants, on their return in the second week of October, found the ships of the squadron covered with "housings," like tents, and all the usual preparations for wintering in the ice well forward.

On the 4th November the sun appeared for the last time for ninety-five days. During the previous month, however, the splendours of the successive sunsets had been such as to rouse the enthusiasm of the prosiest observer. "During the latter part of autumn," says Mr Markham, then midshipman in Austin's ship, "the tints in the sky are so magnificent that it would be difficult to draw any comparison with those which we are accustomed to see in other parts of the world. It seems as if the sun displays his most glorious brilliancy in these regions, where his rays brighten the gloomy prospect only for a time, compensating by the increased grandeur of his presence for the long night which is to follow. On one side brilliant shades of violet, green, and purple shone forth ; while on the other, lake, crimson, orange, and yellow gave a character of more gorgeous splendour to the eastern sky." This glowing description was written in September, and is no doubt truthful and sober. The following, written by Sherard Osborn—a fellow officer—a few days, or at most, two or three weeks later, is no doubt equally truthful : "No pen can tell of the unredeemed loneliness of an October evening in this part of the Polar world : the monotonous rounded outline of the adjacent hills, as well as the flat unmeaning valleys, were of one uniform colour, either deadly white with snow, or striped with brown where too steep for the winter mantle as yet to find a holding-ground. You felt pity for the shivering blade of grass, which, at your feet, was already drooping under the cold and icy hand that would press it down to mother earth for nine long months. Talk of 'antres vast and deserts idle ;' talk of the sadness awakened in the wanderer's bosom by lonely scenes, whether by the cursed waters of Judea or the afflicted lands of Assyria—give me, I say, death in any one of them, with the good sun and a bright heaven to whisper hope, rather than the solitary horrors of such scenes as these."

Active work commenced early in April 1851. On the 4th Mr M'Dougall of the "Resolute" was despatched to inspect and report upon the depôts formed in the autumn of the previous year. This service was undertaken a month earlier in the season than any similar excursion in any former expedition. On arriving at the depôt that had been formed on Somerville Island, M'Dougall found that the tin cases in which the provisions had been packed were torn to ribands and their contents devoured by bears. Even

the tin packets of frozen pemmican had been crushed by them. The depôt having been replenished and secured as completely as possible, M'Dougall returned to the ships and reported. Meanwhile the two great sledge-parties, that were to prosecute the search for Franklin far to the south and west, under the commands of Captain Ommanney and Lieutenant M'Clintock respectively, were mustered on the 15th April, and after having been briefly addressed by Captain Austin, the divisions separated at once with mutual cheering, the one party setting out south-westward toward Cape Walker, the other proceeding west in the direction of Melville Island.

Captain Ommanney's division consisted of two "long-party sledges," or sledges for distant travelling—the "Reliance" (Captain Ommanney and six men), and the "True Blue" (Lieutenant Osborn and seven men). To accompany these part of the way there were five "supporting sledges," the "Succour," "Enterprise," "Adventure," "Inflexible," and "Success," the chief purposes of which were to keep up the resources of the long-party sledges, and to form provision depôts for the return march. Lieutenant Osborn explains the manner in which it had been arranged to take full advantage of the supporting sledges. "The junior supporting sledge, 'Success,'" he writes, "was capable of feeding all the division for five days (by which time we hoped to be at Cape Walker), and then have sufficient food to return back to the squadron, where it would again replenish, and, returning to the same point at which we had separated from it, form such a depôt that each of the sledges in return would find five days' provisions to carry them home. By this means six out of the seven sledges in the southern search will be seen to reach a point fifty miles from their original starting-point in perfect condition, so far as their provisions are concerned. We will, for the sake of clearness, cause these six sledges to form into three divisions, of two each, viz., a 'long-party' sledge and a support. In each case the support can feed the long-party for another ten days, and then a depôt of provision equal to ten days more, yet have sufficient left itself to reach back to Cape Walker, and thence home. The 'long-party' would thus be still complete, after receiving two supports, equal to fifteen days or 150 miles, and two depôts stand in their rear, the one for ten days, the other for five days. The 'long-party' now starts, consuming its own provision (forming its own depôts for the returning march), advances for twenty days, and accomplishes 200 miles; which, with that done whilst supported, makes in all a journey outward of thirty-five days, or 350 miles from the ships. Of course with an increased number of supports, this distance and time may be carried on as long as the strength of the men will endure, or the travelling season admit of."

Starting on the afternoon of the 15th April, Captain Ommanney's sledges were soon enveloped in darkness, for the grey twilight of the night was so darkened by a snow-storm from the south-west that the men, dragging at

the ropes, were obliged almost to grope their way through the broken ice off Griffith Island. At two o'clock in the morning a vast quantity of piled-up ice was reached, and progress having become all but impossible, the word was given to halt and pitch tents. The seven sledges of the division were soon secured on the smoothest spots, and the tents arose on the ice, fluttering in the breeze. Tea was cooked, pipes were lit, and then each man getting into his blanket-bag, went to sleep wishing for fine weather. But "next day," says Osborn, "the weather was still as thick as pea-soup, with a double-reef topsail breeze blowing in our teeth; but detention was impossible, so we again packed-up, after a meal of chocolate and biscuit, and facing towards Cape Walker, we carried the hummocks by storm. Ignorance was bliss. Straight ahead, over and through everything was the only way; and, fresh, hearty, and strong, we surmounted tier after tier, which more light and a clearer view might only have frightened us from attempting. Here a loud cheer told where a sledge had scaled the pile in its path, or shot in safety down the slope of some huge hummock. There the cry, one! two! three! haul! of a jammed sledge, and quizzical jokes upon name, flag, or motto, betokened that 'Success' or 'True Blue' had floundered into a snow-wreath, above which the top of the sledge-load was only to be seen, whilst seven red-faced mortals, grinning, and up to their waists in snow, were perseveringly endeavouring to extricate it; officers encouraging and showing the way; the men labouring and laughing." On the 17th smoother ice was reached sweeping away to the base of Cape Walker. But the vapour-loaded south-west wind was still blowing, the outlook was one greyish haze with fast falling snow, and sky and ice-floe were indistinguishable from being of uniform colour, and both were covered by a thick veil of mist. From the monotonous, featureless character of the scene it was impossible to take bearings and so preserve a straight course, and it was equally impossible to keep a compass constantly in hand. The order of march was therefore very anxiously considered, and after having been decided upon, was carefully observed. The officers, forming in a line ahead, "raised the road," or made the track to be followed by the sledges, "the crews of which soon learned that the easiest mode of travelling, and most equal division of labour, consisted in marching directly after one another; but as the leading sledge had the extra work of breaking the road through the snow, and straining the men's eyes in keeping sight of the officers, the sledges were changed every half-hour or hour, according to circumstances."

The party travelled by night to avoid the glare of the sun and the snow-blindness, of which it was the cause. But, in avoiding one evil, another was incurred, for in travelling at night the men were subjected to the severest weather—the greatest degree of cold—of the twenty-four hours. On Easter

Sunday the wind veered to the north, and the travellers set sails on the sledges, and sent up enormous kites, with which each was provided by some somewhat fanciful philanthropist in England. The little expedition now advanced rapidly, the pace—thanks to the help afforded by the sails rigged on the sledges—being such as to throw the seamen into a profuse perspiration, and make them look like men “toiling under a tropical sun rather than in an Arctic night with the temperature below freezing point.” On Easter Monday the cold increased with a cutting gale from the north-west, and as the night closed round the travellers, the temperature sank with alarming rapidity. With this change of temperature occurred one of those magnificent displays of halos and parhelia common to those regions. The whole heavens were lighted with the spectral gleam of mock suns, the centres of vast mystic circles; and the seamen, as they tugged hard at the dragging-ropes to get across the floe,

“Where oft the stormy winter gale
Cuts like a scythe.”

thrilled throughout every fibre of their superstitious nature as they gazed at the unearthly spectacle. But they did not gaze long. The savagely biting blast recalled them from the spiritual, remote, “uncanny” pictures on the curtain of the night sky. “The brilliant warm colouring and startling number of false suns seemed as if to be mocking the sufferings of our gallant fellows, who, with faces averted and bended bodies, strained every nerve to reach the land, in hopes of obtaining more shelter than the naked floe afforded from the nipping effects of the cutting gale.” On the night of the 21st the edge of the floe at the base of Cape Walker was reached, and though the sea-ice was here piled up in a rugged rampart, to the height of fifty feet, Captain Ommanney’s party, with one last gallant effort, carried the sledges over the ice barrier, reached the land once more, and encamped.

Next day exploring parties went off to discover the trend of the land, and seek for cairns or other possible traces of the lost expedition. The cape itself is an immense cliff of sandstone and conglomerate, rising to the height of 1000 feet. No traces were found on it or near it. But a broad channel ran southward from it toward the coast of the American continent; and as this channel was likely to have tempted Franklin to seek a passage to Behring Strait, Captain Ommanney decided to send Lieutenant Browne to explore it from the cape toward the south. The “Success” sledge was then despatched with the invalids—for two or three of the men had been severely frost-bitten—to the winter quarters at Griffith Island, while the remainder of the party, after forming a *depôt*, started away from the spot in five sledges to the westward. It may here be stated that Lieutenant Browne, in following out the channel leading southward from Cape Walker, discovered a con-

siderable tract of coast previously unknown—the east coast of Prince of Wales Land—and after having been absent on the ice for forty-five days, succeeded in returning in safety to the ships, though he was unsuccessful in discovering anything to indicate that he had been upon the track of Franklin. Meanwhile the larger party of the southern division, under Ommanney and Osborn, pushed on on a south-west course along the north shore of Russell Island, of which Cape Walker is the north-east point, until, on the 30th April, they reached a deep inlet, which Meham discovered was a strait separating Russell Island from Prince of Wales Land. Ommanney then travelled over the western outlet of this strait, and pursued his way over the ice of the west coast of Prince of Wales Land. “Every mile that we advanced,” says Osborn, “showed us that the coast was one that could only be approachable by ships at extraordinary seasons. The ice appeared the accumulation of many years, and bore, for some forty miles, a quiet, undisturbed look. Then we passed into a region with still more aged features. There the inequalities on the surface, occasioned by the repeated snows of winters and thaws of summers, gave it the appearance of hill and dale. . . . To avoid this description of ice, amongst which a lengthened journey became perfectly hopeless, we struck in for the land, preferring the heavy snow which then encumbered the beach to such a heart-breaking struggle as that on the floe. Irreparable injury had however been done to our crews during our last day’s labour amongst the hummocks. A fine clear evening had given us the full effects of a powerful sunlight upon the pure virgin snow. . . . All was white, brilliant, and dazzling; the eye in vain turned from earth to heaven for rest or shade—there was none. An unclouded sunlight poured through the calm and frosty air with merciless power, and the sun being exactly in our faces, increased the intensity of its effects.” The natural and inevitable result accrued. Out of the whole party of thirty, sixteen men and one officer were, on the 1st May—two days after they had reached the shore—struck with snow-blindness, and rendered all but helpless. This disease has its origin in the continued irritation of the eye, caused by the glare of the sun, and the reflection of that glare—blazing as from a mirror—from the surface of the snow. It commences with a dull aching sensation in the eyeball, as if from the effect of overstraining. On the second day blindness rapidly sets in. “From experience,” says Osborn, “I can speak of the mental anxiety which must have supervened at the thought of one’s entire helplessness, and the encumbrance one had become to others, who, God knows, had troubles and labour enough of their own.” Gradually the film spreads, objects become dimmer and dimmer, until at last all is darkness, with an intense horror of the slightest ray of sunlight. The effects, however, of this species of ophthalmia, are not lasting, and with rest, seclusion from light, and the

application of a simple remedy, the symptoms vanish almost as rapidly as they arise.

Onward went Ommanney and Osborn, with their crews sorely tried, but always cheerful and ready for any hard work, along the west coast of Prince of Wales Land, until they had reached a point distant about three hundred miles from their ships. Nothing whatever had been discovered to prove that any European had ever set eyes on these solitary and savage shores. Indeed, Markham informs us that "from the shoalness of the water at considerable distances from the shore, and the great thickness and apparent age of the ice, it is probable that these seas are seldom, if ever, navigable for ships." This was to a certain extent *prima facie* evidence against Franklin's having landed here, and although since the time that Markham wrote, opinion respecting the *permanence* of ice in any tract of the Arctic Sea has been much changed, still it was unlikely that the missing ships could have visited these shores, however favourable the season, since no traces of encampments or cairns were discoverable. But Ommanney was chiefly disappointed that no signs of Franklin were to be met with at Cape Walker, a spot so distinctly named in his official instructions,—a spot which he could hardly have avoided visiting if he attempted the passage by a southward route at all. But now, neither at Cape Walker, nor along the east and west shores of Prince of Wales Land, southward from the cape, was any trace of the missing expedition seen; all that rewarded the hardy explorers was the view of a barren coast, covered with snow and bounded by the frozen sea—monotonous, dreary, and inhospitable.

Captain Ommanney commenced the return journey to the ships on the 6th June. Of most return journeys there is little of interest to be told, but on the 12th, the day before he reached the ships, the gallant captain met with "an adventure." The party had encamped, and the men had just got into their blanket-bags, when, we are informed, "a peculiar noise as if of something rubbing up the snow outside was heard." In these regions of continuous oppressive silence, all *sounds* are interesting from their rare occurrence, if not alarming. But whatever the danger, it was the part of a British seaman and the captain of a discovery ship to be ready to meet it. Ommanney therefore seized his gun, loaded it, cocked it, and then ordered the tent door to be opened. Astonishment, not unmixed with consternation, was depicted on several of the faces that peered out from the blanket-bags, when the opened door disclosed a huge bear at the tent entrance. The captain fired, but owing perhaps to the fact that his limbs were benumbed with cold, or that the light of the Arctic night was ghostly and glimmering, or to the excitement naturally caused by the unusual, not to say tremendous, circumstances of the case, he missed. But his intention was obvious, and the bear, enraged at the uncivil salute, entered the canvas house, knocked over

the tent-poles, and brought down the whole erection on the heads of the inmates, whose terror at thus finding themselves playing at blind man's buff with a hungry and an angry bear, seems for a moment to have completely paralysed them. At last, one man scrambling out of his sleeping-bag, escaped from under the overthrown tent, rushed to the sledge, and returned with another gun. Meantime the bear, observing the man escaping from his blanket-case, and thinking perhaps that there might be more where this one came from, seized the sleeping-bag with his teeth and shook and tore it violently. The owner of the bag, however, now approached, and with a well-aimed shot, killed the monster, after which, amid much laughter, the tent was pitched anew, and the light-hearted tars were soon asleep.

Captain Ommanney had been absent from the ship sixty days, a fact which of itself proves that vast improvements had been made in sledge-travelling. The results of his journey are well stated in the concluding paragraph of his report: "It is a consolation to know that we have thoroughly examined all the coast within our reach, and personally explored two hundred geographical miles of newly-discovered land. Although unsuccessful in meeting with traces, my mind is firmly convinced of the impracticability of any ships navigating along this coast, for these reasons—shoals extend along the greater part of it, and I could see no indication of currents or tide-marks; and, from the nature of the ice, it is impossible to say what time the oldest of it may have taken to accumulate, probably for many seasons; consequently, I entertain no hopes of ships ever reaching the continent of America south-west of Cape Walker."

But the most remarkable of the sledge journeys of Austin's expedition was that performed by Lieutenant M'Clintock. Starting from the ships on April 15th, he proceeded rapidly to the westward, examining the shores of Cornwallis and Bathurst Islands as he advanced. At the outset, his party suffered intensely from cold. Several of the men, who were frost-bitten, were sent back by the support sledges to the ships; and in one case, mortification set in so rapidly that the man died twenty-four hours after he had been taken on board. M'Clintock reached Byam Martin Island, off Melville Island, on the 1st May. Here he parted with his companion officer, Surgeon Bradford, who went off northward to prosecute the search along the shores of Byam and Austin Channels. Bradford searched the east coast of Melville Island as far north as $76^{\circ} 15' N.$, and returned to the ships after eighty days' absence. The lieutenant pushed direct west, and on the 10th May, landed on the south-east point of Melville Island. He was the first European that had visited that remote land since Parry left it in 1820. "He was now, with his six men," says Markham, "thrown entirely on his own resources, exposed to all the vicissitudes of a rigorous climate, and dependent on his own efforts and the accidental condition of the ice for

advance or retreat." But he was equal to every required exertion. Rigging a sail upon his sledge, he skirted along the coasts of the island, examining every indentation, and ever on the watch for a landmark; but though from day to day incidents and discoveries kept him ever cheerful and hopeful, he saw no evidence on these desolate shores to show that Franklin had penetrated thus far west. On the 16th, the party passed through a gigantic range of hummocks, twenty feet in height, and resembling a ruined wall. The pressure required to pile up the level floe to this height must have been enormous. Arrived near Cape Bounty on the 19th, they got sight of a herd of musk-oxen, and killed two of them, but obtained only 8 lbs. of fat and 150 lbs. of beef from the two carcasses. From Cape Bounty he advanced past the Winter Harbour of Parry, and traversed the land on both sides of Cape Providence, which was found to consist of ranges of hills with a narrow belt of low land, containing many well-sheltered and comparatively productive spots. West of Cape Providence, the perpendicular cliffs rose sheer from the sea to the height of 450 feet. Rounding Cape Dundas, M'Clintock reached Cape James Ross (lat. $74^{\circ} 41'$ N., $114^{\circ} 26'$ W.), the most westerly point on this coast that had been visited down to the year 1851. In this neighbourhood he ascended a cliff 700 feet high, from which he saw away to the south-west the mysterious Banks Land, with its lofty and steep hills and large ravines. From this point a tract of the coast-line of the island stretched away westward, and between it and Banks Land the distance over the frozen sea was sixty-six miles. "The party," writes Markham, "had now arrived at a distance of three hundred miles from the ships in a direct line, when it became necessary to commence the return home; and accordingly they proceeded up Liddon's Gulf, and on the 1st of June reached Bushnan Cove. Here it was that Sir John Franklin, or some of his crew, if they had wintered anywhere on the north of Melville Island, would have left some traces in an attempt to reach the continent of America; but not a vestige was to be found. In this picturesque spot Parry had left his travelling cart on the 11th of June 1820, and Lieutenant M'Clintock found the wheels, which he used for fuel,—several tin water-bottles, and even the bones of the ptarmigan Parry had dined off. Thus, after an interval of thirty years, did these explorers revisit the place where the first Arctic travellers had encamped. Crossing the land from the head of Liddon's Gulf, the party arrived at Winter Harbour on the 5th, and encamped near the mass of sandstone at its entrance, on which the names of the 'Hecla' and 'Griper' were carved. The foundations of Parry's observatory were found, with pieces of wood, broken glass, nails, and a domino—rare things in these desolate regions! Here also they found a hare, which dwelt within twenty yards of their tent, and remained on the most friendly terms with them during the whole of their stay, regarding them with the utmost

confidence, and even allowing the men to touch her. There can scarcely be a more convincing proof than this, that our missing countrymen had not been there. On the 8th of June the weather had become so warm that drink was enjoyed off Cape Bounty without the aid of fire; and from that time the snow began to melt, which occasioned additional discomforts; for the tent and baggage on the sledge frequently got wet, and the men had to wade incessantly through water up to their knees, so that the extreme cold and frost-bites of spring were replaced by the wet and misery of an Arctic summer. After a long and weary walk of 250 miles, Lieutenant M'Clintock arrived on board on the 4th July, and thus terminated the most extraordinary journey in the annals of Arctic history. His party had been absent eighty-one days, during which time they had travelled over 770 miles of ground, averaging a distance of ten miles daily.

“Another party from Captain Austin's ship discovered the deep bay dividing Cornwallis and Bathurst Lands, and which is terminated on the west by Markham Point, and on the east by a narrow inlet; while Mr Allen, master of the 'Resolute,' examined the shores of Lowther and Garrett Islands. Such were the exertions made during the spring of 1851, to discover and relieve our long-lost countrymen. Five parties of Captain Austin's expedition were away from the ships much longer than any that had preceded them, and braving the hardships of a month, the mean temperature of which was -7° , and the maximum 39° ; they have, although unsuccessful in the main object, at least done their utmost, and well merited the praise which has been bestowed upon their gallant and untiring efforts.”

On the 8th August, the discovery squadron was floated out of its winter quarters, southward towards Barrow Strait. On arriving off Cape Warrender, Captain Austin took command of the two steamers, and proceeded to search Jones's Sound, while the "Resolute" and "Assistance" were ordered to rendezvous off Wolstenholme Sound. On the night of the 15th, the steamers entered Jones's Sound, which was found to increase in width above the entrance. Its scenery was declared to be magnificent, especially that of the south shore, "where," says Osborn, "some ten miles in the interior a huge dome of pure white snow envelopes land some 3000 or 4000 feet high." On the 17th, however, farther progress up the sound was stopped by floes extending from the north to the south shore. Beating out of the sound, the "Intrepid" and "Pioneer" made for the rendezvous, in the neighbourhood of which they joined the "Resolute" and "Assistance" early in September. Captain Austin was now forced to decide whether to remain out another year, or at once to return to England; and in view of the difficulty of reaching a secure harbour, and the probability, in the event of not finding such a harbour, of being drifted away into the Atlantic early in the spring, the captain resolved to bear up for home. He accordingly made sail southward

through Baffin Bay for England, where he arrived at the close of September.

Thus the completest and most splendidly-equipped expedition that had ever left the British shores returned after an absence of seventeen months. Its officers had searched the whole coast of the Parry Islands, from Beechey Island, where Penny discovered Franklin's first winter quarters, to the extreme western point of Melville Island—a distance of 350 miles; and besides this, great tracts of land, of more than 500 miles in extent, had been thoroughly examined by Surgeon Bradford and Lieutenant Aldrich. Again, 400 miles of coast-line to the south of Cape Walker had been discovered and roughly surveyed. Finally, both sides of Wellington Channel had been examined by Penny, and Jones's Sound, as far as the barrier of ice, by Captain Austin; yet, though the search was so thorough and of such wide extent, nothing was discovered that threw light on the fate of the "Erebus" and "Terror." Nothing, yet, for a little while.

CHAPTER VI.

VOLUNTEER EXPEDITIONS IN 1850-51—LIEUTENANT DE HAVEN'S AMERICAN EXPEDITION—CAPTAIN FORSYTH'S VOYAGE IN THE "PRINCE ALBERT"—SIR JOHN ROSS IN THE "FELIX."

BESIDES the Government expeditions sent out in 1850, under Penny and Austin, to search for Franklin in Barrow Strait, and in the inlets running north and south from that great channel, three private or volunteer expeditions were fitted out to aid in the search, under the commands respectively of Lieutenant de Haven of the American Navy, and of Captain Forsyth and Sir John Ross. In the voyages under these commanders, however, no trace of the missing ships was discovered. It is therefore only necessary here to notice briefly the origin of these expeditions and the main incidents of each voyage.

The American Expedition.—Sympathy for the relatives of the men who had set sail so hopefully in the "Erebus" and "Terror" in 1845, was almost as keenly felt in America as in England; and when, in 1849, Lady Franklin appealed to the great American nation to aid England in her humane endeavours to rescue the lost navigators, our kinsmen across the Atlantic returned a ready and generous response, and the national feeling was expressed by Mr Henry Grinnell, a merchant of New York, who, at his own expense, bought, provisioned, and equipped two vessels to be despatched to the Arctic seas. The two vessels—the "Advance," schooner, 140 tons, and the "Rescue," schooner, 90 tons—were wisely placed at the disposal of the American Government, in order that they might be commanded by naval officers, and be subject to the discipline of the regular service. The command of the expedition was given to Lieutenant De Haven, who hoisted his pendant in the "Advance," and Mr Griffin was appointed to the "Rescue," as second in command. De Haven, with instructions to prosecute the search in Wellington Channel and in the region around Cape Walker, set sail from New York on the 23d May 1850. He did not reach the pack of Melville Bay till the 7th July, and it was late in August before he had

reached the entrance to Regent Inlet. Leaving the neighbourhood of Leopold Island, De Haven stood over for the north shore, and on the 25th he was off Cape Riley, on which he visited the encampment which had originally been discovered by Captain Ommanney. On the 26th he passed Beechey Island, and pushed north into Wellington Channel. Here, he says, he found the ice "fixed and unbroken from shore to shore," and looking like as if it "had remained so for at least three years." Progress in a northward direction was consequently out of the question; he therefore turned back, took shelter under the lee of Point Innes, and waited for a change. "On Point Innes," writes De Haven, "distinct traces of an encampment were found, together with many relics similar to those found at Cape Riley. Captain Penny (whose squadron we met here) picked up a piece of paper containing the name of one of the officers of Franklin's expedition, written in pencil, thus proving beyond a doubt that some of his party had encamped here; but when, or under what circumstances, it was impossible to say. The preserved meat cans, moreover, bore the name of the person who had supplied his ships with that article." From Point Innes, De Haven returned to Beechey Island, and joined Penny and Ross in searching the newly discovered winter quarters of Franklin for documents. He visited the graves, the observatory, armourer's shop, etc.; but, as has already been stated, without any satisfactory result.

Returning to Wellington Channel, De Haven continued to beat about its entrance without being able to make way to the north, for ten days. On the 9th September, he entered a lead extending along the south side of Cornwallis Island, and reached Griffith Island, where the lead closed. Here the ice was so unfavourable, that after consultation with Mr Griffin, De Haven resolved to return to the United States. He was detained, however, for days at the mouth of Wellington Channel, and a south wind springing up and drifting him northward, he found himself on the 18th off Cape Bowden, the most northern point seen on the east shore by Parry. He continued to drift to the north-north-west until the 22d, and now, "between Cornwallis Island and some distant high land visible in the north, appeared a wide channel leading to the westward. A dark misty-looking cloud which hung over it (technically termed frost-smoke) was indicative of much open water in that direction. . . . Nor," continues De Haven, "was the open water the only indication that presented itself in confirmation of this theoretical conjecture as to a milder climate in that direction. As we entered Wellington Channel, the signs of animal life became more abundant; and Captain Penny, who afterwards penetrated on sledges towards the region of the 'frost-smoke' much farther than it was possible for us to do in our vessels, reported that he actually arrived on the borders of this open sea." For the remainder of September, and until the 4th of October, the vessels drifted but little; but all

through October and November they were driven to and fro by the changing wind, though they never passed out of the channel. The perils and labour endured during these months were such as few men are ever called to experience. Sometimes the hummocks, consisting of massive granite-like blocks, would be thrown up above the ship's side to the height of twenty or thirty feet, and "this action in the ice," says De Haven, "was accompanied with a variety of sounds impossible to be described, but which, when heard, never failed to carry a feeling of awe into the stoutest hearts."

De Haven had failed after repeated and anxious endeavours to reach a harbour, and he was doomed to spend the winter at the mercy of the drifting ice. "In one respect," writes Seemann, "this is the most extraordinary of all searching expeditions, namely, in its being exposed to drifting ice from the middle of September 1850 to the middle of June 1851, an occurrence altogether unprecedented." Seemann appears to have forgotten the disastrous voyage of Sir George Back in the "Terror" in 1836-37. But we must follow De Haven's narrative. Toward the close of November, the "Advance" was drifted south-east to a point about five miles south-west of Beechey Island; and on the last day of the month a strong wind from the west sprang up and carried the vessel clear of Wellington Channel and into Lancaster Sound. During the remainder of December, the drift of the "Advance" (still imprisoned in the pack) to the eastward, averaged nearly six miles per day, so that on the last of the month De Haven found himself at the entrance of Lancaster Sound. By the 14th January he was fairly launched into Baffin Bay, and his line of drift began to be more southerly, assuming a direction nearly parallel with the western shore of the bay, at a distance of some forty to seventy miles from it. On the 29th the sun rose his whole diameter above the horizon, and remained visible for an hour; but with the lengthening daylight the cold became only the more intense, and in February, and again in March, mercury froze, though it had remained fluid during the dark days of winter. But curiously enough, a very low temperature was invariably accompanied with clear and calm weather, so that in the "Advance" the coldest days were perhaps the most pleasant.

The ice, in the midst of which the "Advance" and her consort, the "Rescue," were drifting, had frequently been subject to temporary disruption; but in February it became cemented again, and no other rupture took place until the final one which permitted the vessels to escape. "Still," says De Haven, "we kept driving to the southward, along with the whole mass. Open lanes of water were at all times seen from aloft; sometimes they would be found within a mile or two of us. Narwhales, seals, and dovekies were seen in them. . . . Bears would frequently be seen prowling about; only two were killed during the winter, others were wounded, but made their escape. A few of us thought their flesh very palatable and

wholesome, but the majority utterly rejected it. The flesh of the seal, when it could be obtained, was received with more favour. As the season advanced, the cases of scurvy became more numerous, yet they were all kept under by the unwearied attention and skilful treatment of the medical officers. My thanks are due to them, especially to passed Assistant-Surgeon Kane, the senior medical officer of the expedition." As the spring advanced, the floe which encased the ships began slowly to decay. In April the "Rescue" was cut free from the surrounding ice, and the officers and crews removed into her; but the ice continued so thick around the stern of the "Advance" that the thirteen-foot saws were too short to pass through it. It was not till June 8th that the "Advance" was set free, in latitude about 65° N.

De Haven now made sail for Lively on Disco Island, for the purpose of verifying chronometers and recruiting his crew. On the 22d, having replenished his stores and recruited his men, the gallant lieutenant again turned his prow northward, "with the intention of prosecuting the object of the expedition for one season more at least." He pushed north past Proven and Uppernavik; but on the 27th June the "Advance" was again closely beset in the ice, and remained so till the 4th August. De Haven now began to dread being frozen in for another winter, in a similar if not worse situation than before. He therefore took advantage of an opportunity afforded him, late in August, of retracing his steps, in accordance with his instructions not to spend more than one winter in the Arctic regions. His progress homeward, after one of the most remarkable cruises in the annals of Arctic exploration, was favourable. On the 6th September, he left Holsteinberg for New York, where he arrived on the 30th of the same month, the "Rescue" coming in safely a week later.

Captain Forsyth's Voyage in the "Prince Albert."—The thorough examination of Barrow Strait, Wellington Channel, Melville Island, and the regions to the south and south-west of Cape Walker having been provided for by the Government expeditions under Penny and Austin, Lady Franklin thought it advisable to send out an auxiliary searching vessel, to the only quarter the examination of which seemed unprovided for in the Government scheme—that of Prince Regent Inlet and the east coasts of North Somerset and Boothia. With this view the "Prince Albert," schooner, eighty-nine tons, was purchased and equipped at the cost of about £4000, of which more than one-half was contributed by Lady Franklin from her own resources, while about £1500 was raised by subscription. Captain Charles Codrington Forsyth was appointed to the command, and Mr W. Parker Snow was engaged to take charge of what he calls "the civil department of the vessel; the superintending and issuing of stores, etc.; the care

of all the scientific instruments and medicine chest." The same versatile gentleman acted as "doctor" to the expedition, the medical man who had been engaged for the service having at the last moment "declined the honour." All preparations having been completed, the "Prince Albert" put to sea from Aberdeen on the 5th June 1850.

In less than four months—on the night of the 1st October—the vessel was again in Aberdeen harbour, and Mr Parker Snow had now the congenial task before him of writing the story of the adventures and achievements of "the expedition." This he has done in a volume entitled the "Voyage of the 'Prince Albert' in search of Sir John Franklin." The cruize lasted four months, during which time no discovery was made; the volume runs to four hundred pages, in which no fact of importance is recorded. It is enough to state that the "Prince Albert" reached Lancaster Sound, sailed for some time in company with the other discovery ships, then entering Regent Inlet, proceeded as far south as Fury Beach, where she was stopped by ice. From this point the homeward voyage began. Mr Snow tells once more the story of the discovery of Franklin's first winter quarters, an episode in Arctic exploration which has already been sufficiently dwelt upon. This writer speaks of the craft in which he sailed as the "*bonnie wee pet*," and emphasises the expression by putting it in italics. No more! No more!

Sir John Ross in the "Felix."—While Government were fitting out the expeditions under Penny and Austin, Sir John Ross, who had then reached the great age of seventy-three, volunteered his services to proceed again to the north and search for his old comrade, Franklin. Government declined the offer, but the veteran navigator, persisting in his endeavours, obtained the countenance of the Hudson's Bay Company, from which and from the public, he obtained by subscription sufficient funds to purchase and equip the small schooner "Felix," in which he set sail from the west of Scotland on the 23d May 1850. On the 27th August he arrived at Beechey Island, where he inspected the traces of Franklin's winter quarters. He added nothing, however, to the discovery of Penny, with whom he spent the winter in Assistance Harbour. During the winter, his first officer, Commander Philips, made a futile and fruitless effort to cross Cornwallis Island. On the 12th August 1851, the "Felix" with the other vessels was released from the ice, and Ross commenced his homeward voyage, and arrived off the west coast of Scotland, 25th September 1851. "This expedition," says Seemann, "was attended with no results, either as to the missing vessels or to geographical discovery."

PART X.

DISCOVERY OF A NORTH-WEST PASSAGE.

CHAPTER I.

SEARCH BY BEHRING STRAIT RESUMED—EXPEDITION UNDER CAPTAINS COLLINSON
AND M'CLURE—VOYAGE OF THE "INVESTIGATOR."

ON the return of the unsuccessful expedition, consisting of the "Enterprise" and "Investigator," under the command of Sir James C. Ross, in 1849, Government, having already provided for the prosecution of the Franklin search in Lancaster Sound, Wellington Channel, etc., by fitting out the squadrons to be conducted to these waters by Penny and Austin, resolved to re-equip the newly-returned vessels and despatch them to continue the search *by Behring Strait*. The "Enterprise" and "Investigator" were accordingly re-docked, thoroughly repaired, and provisioned for the long voyage round Cape Horn, across the Pacific, and into the Polar Sea by its western entrance. The command of the "Enterprise"—and of the expedition—was entrusted to Captain Richard Collinson, C.B., while Commander Robert J. Le Mesurier M'Clure was appointed to the "Investigator." Collinson entered the navy in 1823, and had served with distinction on the West Coast of Africa and during the first China War; while M'Clure, who sailed as mate in the "Terror" with Sir George Back in 1836-37, had just returned with Sir J. C. Ross, under whom, in the "Enterprise," he had held the rank of first lieutenant. Of the officers, the latter, Commander M'Clure, was destined, in the expedition now under consideration, to achieve the object for which British navigators had been striving ever since the close of the fifteenth century—the discovery of a North-West Passage; and it will therefore be necessary, in our narrative of the incidents and results of this expedition, to follow closely the fortunes of his vessel, the "Investigator."

The vessels sailed from the Thames on the 10th January 1850; but did not finally leave the British shores till the 20th. On the 20th February the

"Investigator" first felt the influence of the north-east trade-wind of the Atlantic, and on the 28th March she passed out of the southern tropic in the South Atlantic Ocean. On the 14th April M'Clure reached to within ninety-one miles of the Strait of Magellan, in long. $67^{\circ} 57'$. At this point the officers and crew became entitled to "*double pay*," writes Surgeon Armstrong—who sailed with M'Clure, and who writes a "Personal Narrative of the Discovery of the North-West Passage,"—"in accordance with the orders of the Admiralty that it (the increased rate of payment) should commence on attaining the meridian of Cape Horn, which we had then reached." On the 17th the "Investigator" joined the "Enterprise" in Fortescue Bay in Magellan Strait, and it was found that, though the vessels had parted company early in February, and from that period had never sighted each other, they both had crossed the line on the same day. On the 19th the discovery vessels set sail in company, but in the evening a fresh gale springing up from the north-west, the vessels parted company, *never more to rejoin*. For ten days the "Investigator" was driven about in the gale, and it was only on the 30th April that M'Clure was able to resume his course for the next rendezvous—Honolulu, in the Sandwich Islands.

Honolulu was reached on the 1st, and left on the 4th July. On the 28th Behring Strait was passed, Arctic circle was crossed, and the Admiralty clothing for the use of the seamen in the far north was issued to the crew. "Arctic sights," writes Sherard Osborn, "now rapidly accumulated to interest the many novices in the 'Investigator,' and to awaken in the mind of their commander recollections of his former trying and unsuccessful voyage on the opposite side of America into that same frozen sea." This first issue of warm clothing, we are informed by Armstrong, consisted of "one complete suit of blue double-milled box-cloth, boots, stockings, boot-hose, comforters, mits, and caps; all of excellent quality, and well adapted for Polar service." At eight P.M. on the 28th, M'Clure observed a sail bearing down upon him, and was delighted to find that the stranger was the Arctic store-ship "Plover" (Captain Moore), which had passed the winter of 1849-50 in Kotzebue Sound. From Captain Moore the "Investigators" learned that the "Enterprise" had not yet been met with in the Polar Sea, and that the ice beyond Kotzebue Sound was so heavy as to be impenetrable. Bidding adieu to the "Plover," M'Clure pushed on northward for Cape Lisburne.

The "Investigators," however, did not miss the opportunity of sending their last words to friends in England by the "Plover," and among other letters, M'Clure sent home to the Admiralty one of the most vigorous despatches it has ever been our fortune to read. In it are discernible all the courage, the ambition, and the inflexible resolution which were afterwards displayed in accomplishing the North-West Passage. Captain

M'Clure states that he had received clear instructions from Captain Collinson to proceed to Cape Lisburne to meet the latter at that rendezvous; but he fears that before he shall have been able to reach the cape, Collinson will have rounded it and gone on. In that case he would consider the "Investigator" a detached and independent part of the expedition, and would act accordingly. "After passing Cape Lisburne," he writes, "it is my intention to keep in the open water, which, from the different reports that I have read, appears, about this season of the year, to make between the American coast and the main pack as far to the eastward as the 130th meridian, unless a favourable opening should earlier appear in the ice, which would lead me to infer that I might push more directly *for Banks Land, which I think it is of the utmost importance to thoroughly examine.* In the event of thus far succeeding, and the season continuing favourable for further operations, it would be my anxious desire to get to the northward of Melville Island, and resume our search along its shores and the islands adjacent, as long as the navigation can be carried on, and then secure for the winter in the most eligible position which offers. . . . In the event of this being our last communication, I would request you to assure their Lordships that no apprehension whatever need be entertained of our safety *until the autumn of 1854*, as we have on board three years of all species of provisions, commencing from the 1st September proximo, which, without much deprivation, may be made to extend to a period of four years." Having committed this bold missive into the hands of the captain of the "Plover," M'Clure felt himself free to act only on his own independent judgment, and signalling farewell to Captain Moore, he shaped his course for Cape Lisburne and the icy seas.

On the 31st July, when at a distance of about twenty miles from the cape, the "Investigators" observed a sail standing down towards them from the north-west. Could it be Captain Collinson in the "Enterprise?" The question was soon decided, as the stranger unfurled the gay ensign of St George, and at the same time ran up a number to the masthead declaring her to be the "Herald," Captain Kellett. The vessels soon closed, and as the "Herald" courteously rounded behind the discovery ship, she manned her rigging and welcomed the "Investigators" to the Polar Sea with three hearty cheers, and one cheer more. The vessels then proceeded in company toward Cape Lisburne. "We now learned with regret," writes Armstrong, "that nothing had been seen of our consort (the 'Enterprise'), and we having now arrived at the rendezvous, there could exist no doubt that she was still far behind us. . . . We received no orders from our senior officer (Captain Collinson) as to our course of action in the event of reaching the rendezvous before him; the possibility of such a contingency occurring had evidently never been entertained for one moment. We were conse-

quently obliged to adopt a course of action for ourselves. One of two courses was left for us to pursue—either to remain at the rendezvous until the arrival of the ‘Enterprise,’ with the uncertainty of then meeting her owing to the foggy state of the weather, in which case we should lose the first season—or at once to proceed to the northward and enter the ice single-handed. We resolved on the latter, and cheerfully prepared to encounter all obstacles and dangers, with a firm reliance on a merciful Providence, and full confidence in our resources.” In adopting this course M’Clure ran directly counter to the letter of the official instructions received from the Admiralty; but he was not a man to yield a slavish obedience to the home authorities when he felt himself in command of a good ship stored for three years, and with an undiscovered ocean ahead of him. The wonder is, that Captain Kellett, who was the senior officer, did not interfere with M’Clure’s freedom of action. He does indeed appear to have mildly remonstrated, but in the feeblest and most ineffectual manner.

When the “Investigator” stood in to pay a formal visit to Cape Lisburne, the “Herald”—although farewells and complimentary messages had been signalled between the ships—still continued to follow astern; and when, having touched at the cape, M’Clure stood away boldly for the ice toward the north-west, the “Herald” still followed, as if filled with apprehension for the discovery ship. “This did not add to our comfort,” writes Armstrong; “for it may now be confessed, we still feared that Captain Kellett would detain us, and that, on reflection, he might see the necessity of keeping us at least some days to await the chances of our senior officer’s arrival; but,” continues Armstrong, “*if the truth must be told, an opposite state of the case was urged upon him.* Captain M’Clure maintained (what nobody believed) that the ‘Enterprise’ was ahead of us, in support of which view he retained the private letters he had for Captain Collinson, *for early delivery.*” But the “Enterprise” had never been seen or heard of in the Polar Sea during the whole season, and in point of fact, when the date of her departure from the last port in the Pacific was taken into view, together with the circuitous route she had taken, and her poor qualities as a sailer, it was clear as day to every one that she could not yet have passed Behring Strait. But Captain M’Clure continued to assure Captain Kellett that the “Enterprise” must have gone ahead, and that therefore the “Investigator” ought to follow immediately. As the one gallant captain gave this assurance to the other gallant captain, one can fancy that both of them winked rather hard. Kellett’s position was difficult and delicate. He wished and thought it was right to detain the “Investigator;” yet to stop a discovery ship while the brief summer of the Arctic seas was waning, was to incur a grave responsibility. At last, however, the captain of the “Herald” seemed to have made up his mind, and on the evening of the 31st, he bore straight

down with all sails set, upon the "Investigator," and summoned M'Clure to bring his ship to anchor, and wait for forty-eight hours for the "Enterprise." M'Clure's signal in return, as his ship bore away into the deepening twilight, was, "*Important duty. Cannot, on my own responsibility.*" It was the old story of Nelson over again. He raised a telescope to his blind eye to look at the admiral's signal to retire from action, but, not being able to see it, fought on—and won.

On the morning of the 2d August, the "Investigators" sighted the first ice extending across ahead, in lat. 72° N., and as they advanced towards it, the sea, with its fantastically shaped ice-islands floating on towards them, presented a novel and a fascinating appearance to many of them. "Large pieces," says Armstrong, "coming in our course, were cleft by the ship, producing a slight shock, a grating noise, and an equally strange sensation amongst us, as the fragments, having been partially submerged, were dashed on either side, while the breeze bore us steadily along. The main pack soon became visible; and chilling as was its aspect," continues the enthusiastic doctor, "I am not sure that we did not hail it with a cheer." The main pack was reached at noon on the 2d., in lat. $72^{\circ} 1'$ N., long. $166^{\circ} 11'$ W. Lofty in itself, its height seemed magnified by the refracting power of the atmosphere, and it formed an impenetrable barrier, extending across the ship's path from north-west to south-east.

For the next few days M'Clure sailed eastward along the edge of the pack, in the hope of being able to turn its southern extreme, and then make his way to the northward. On the 5th August he was off Wainright Inlet, and thence he made rapid progress along the well-known coast toward Point Barrow. During the night of the 5th he kept away to the north-north-east, well off the land, sailing among loose ice, and helped on his course by a northward flowing current. By meridian observation, on the following day, he found himself in lat. $71^{\circ} 35'$ N., long. $155^{\circ} 12'$ W. "We were thus," says Armstrong, "farther to the northward of Point Barrow than we intended to go, and, to our great joy, had successfully rounded this hitherto much dreaded point of coast, the alleged unpracticability of which (for ships) we had then fully refuted. The 'Investigator' then floated in strange waters, where no ship had ever preceded her, and commenced the navigation of a hitherto unknown and unexplored sea." Having thus reached a sea hitherto untraversed by any ship, and having practically turned their bow eastward, towards *home*, it was intensely annoying to find that at mid-day on the 6th, the wind entirely deserted them, and they lay becalmed in the middle of loose ice, with every probability of being beset, unless a breeze should spring up. When we think of M'Clure thus powerless, and chafing under his enforced idleness, one cannot help thinking how much he might have accomplished had his vessel been a screw steamer. As it was, the "Investigator"

A
ARCTIC
EXPEDITIONS
FROM
BRITISH AND FOREIGN SHORES
FROM THE EARLIEST
TO THE EXPEDITION OF 1876.