

THE NORTH-WEST PASSAGE.

CAPT. M'CLURE'S DESPATCHES

From Her Majesty's Discovery Ship,

“ INVESTIGATOR,”

OFF POINT WARREN AND CAPE BATHURST.

LONDON :
JOHN BETTS, 115, STRAND,
[NEARLY OPPOSITE EXETER HALL.]

1852.

[Price, with Map, Ninepence.]

LONDON :
PRINTED BY WILLIAM TYLER,
BOLT-COURT, FLEET-STREET.

THE NORTH-WEST PASSAGE.

CAPTAIN M'CLURE'S DESPATCHES.

"Her Majesty's Discovery Ship, Investigator, off Point Warren, Polar Sea, August 24th, 1850, in lat. 69° 43' N., long. 131° 57' W.

SIR,—I have the honour to report to you, for the information of the Lords Commissioners of the Admiralty, that we arrived off the Mackenzie on the 21st instant. The letters that I forwarded by Her Majesty's ship, *Herald*, from whom I parted company on the 30th ultimo, off Cape Lisburne, will have put you in possession of my proceedings up to that date.

After parting with the *Herald* I stood to the N.N.W. with a fresh breeze from the N.E., with the intention of making the ice, which was accomplished on the morning of the 2nd of August, in lat. 70° 21' N., long. 166° 12' W., and at 11 a.m. stood into the loose ice for the purpose of examining the pack; the wind, however, falling before we got far in, I was induced to run out to avoid being beset, having ascertained that the pack was very close and heavy, extending from E.N.E. to W.N.W., and, seeing no hope of getting through, worked along its edge in soundings from 24 to 26 fathoms (mud); the hundreds of walruses that were lying upon the ice, thickly huddled together like sheep in a fold, were most astonishing. We continued working along the ice, occasionally getting drifted in, until the 5th, when the weather, which had been previously thick and misty, cleared a little, and no ice being in sight, I shaped a course for Wainwright's Inlet, with the intention of getting between the pack and shore; in running exchanged numbers with Her Majesty's ship *Plover*, and at 11.30 a.m. observed a low beach, apparently shingle, distant about two miles. The weather again having become thick, we went entirely by our soundings, which varied from 14 to 73 fathoms; in which latter we rounded Point Barrow at 11.30 p.m., without, however, observing the land, and steered to the eastward, direct for Banks's Land, finding that the ice was sufficiently loose and practicable for sailing through. These hopes were soon, however, dissipated; for on the forenoon of the 6th it suddenly cleared, when I found that we had been running directly into the pack, which was very heavy and impenetrable, extending from S.E. to S.W. (by the north), in lat. 71° 35' N., and long. 155° 12' W.

and the sea through which we had come looking nearly as white as the ice ahead, except that lanes of water were observable. We instantly hauled to the wind, and commenced working out. During the night the breeze freshened considerably, bringing showers of rain with thick weather, while being compelled to carry a press of canvass through very heavy and close sailing ice rendered the navigation extremely critical. The vessel occasionally struck with some violence. This continued till the afternoon of the 7th, when clear water was reported from the Crow's-nest. The wind almost immediately failing, the boats were all manned, and towing commenced amid songs and cheers, which continued with unabated good humour for six hours, when their laborious work was brought to a successful termination; being in perfectly clear water in Smith's Bay, a light air springing up, we worked to the eastward.

At 2 a.m. of the 8th, being off Point Drew, sent Mr. Court (second master), on shore to erect a cairn, and bury a notice of our having passed. Upon landing they were met by three natives, who at first were very timid, but, upon exchanging signs of friendship, which consisted of raising the arms three times over the head, they approached the boat, and, after the pleasant salutation of rubbing noses, became very communicative; when, by the assistance of our invaluable interpreter, Mr. Miertsching—the selection of this gentleman for this important office does infinite credit to the discernment of those who sent him—we found the tribe consisted of ten tents (this being the only approach to their numbers he could obtain), that they had arrived only three days previously, and that they hold communication with a party inland, who trade with the Russian Fur Company. The evening before, they had observed us, but could not imagine what large trees they were moving about (our masts), and all the tribe had assembled on the beach to look at them, when they agreed that it was something very extraordinary, and left the three men who met the boat to watch. They also gave the pleasing intelligence that we should find open water along the coast from about three to five miles' distance during the summer; that the heavy ice very seldom came in, or never left the land further than at present; that they did not know if there were any islands further north, as they found it impossible to go in their kyacks, when in pursuit of seals, further than one day's journey to the main ice; and then the lanes of water allowed of their proceeding three-quarters of a day further, which brought them to very large and high ice, with not space enough in any part of it to allow their kyacks to enter; the probable distance, Mr. Miertsching therefore estimates, from his knowledge of the Esquimaux habits, to be about 40 miles off shore, and from what I have seen of the pack, I am inclined to think this is perfectly correct, for a more unbroken mass I never witnessed. They also mentioned seeing the boats with white men going eastward last year (which I suppose was Lieutenant Pullen), but had not seen any other white persons or anything like this vessel before; they had, therefore, no name of sufficient grandeur to give the great "omiac," so they called her the "fast-moving island." Several of them came off to the vessel, but had little to barter, as all their hunters were away, but immediately we had been observed they were sent for, and would soon arrive. Then, said they, "You will be gone, and how disappointed they will be." They appear a simple, kind

people, very poor, very filthy, and, to us, looked exceedingly wretched. The time of our return was repeatedly inquired for by them. They would have a quantity of skins; they were anxious for us to wait a little, that they might send off a supply of reindeer; but, the boat returning, and the wind fair, I made them a few presents, and gave them a letter to be forwarded to the Russian Fur Company, and made sail to the eastward. The wind being light as we ran close along shore, in from four to six fathoms, we had a great many visitors; many of them had been their whole lives between the Coppermine and Point Barrow. These could give no information of the missing expedition. I am certain that had any of them reached these shores we must have heard of it. The coast is inhabited throughout, and the natives are, to all appearance, a kind and merry race, and when we gave them presents, through the medium of the interpreter, we told them that we were looking for our lost brothers, and if they saw any white men in distress they were to be very kind; to which they assented, by saying they would, and give them plenty of "deer's flesh." While running along the land, which is exceedingly low, observed upon Point Pitt two conical mounds; thinking they might have some communication buried beneath, ran in to examine them. While in stays the vessel took the ground, but was hove off almost immediately without any damage, the bottom being soft clay. The boat sent to examine the mounds reported them old Esquimaux caches, where they deposit their venison. They left a bottle, containing a notice of our passing.

Upon rounding Cape Halkett on the morning of the 9th, found the ice was set close to the shore, which rendered it a passage of much anxiety, great labour, and imminent risk, as the wind was strong from E.S.E., with thick fog, and the ice closing around us fast, so that we had barely space to work in, tacking frequently in five, and never beyond ten minutes, standing upon one tack, into three-and-a-half fathoms, and upon the other to four-and-a-half and six fathoms; this operation was continued the greater part of the middle and all the morning watch. At 9 a.m. the weather cleared a little, and open water was observed in Smith's Bay; our soundings gradually increased; the reaches became longer as we rounded the cape, and all apprehension of being forced on shore was over.

August 10.—In crossing Harrison's Bay found the influence of the Colville to extend 12 or 14 miles, the surface of the water being of a dirty mud colour, and scarcely salt. The weather, thick and foggy, prevented any land being seen. The soundings were very regular on one tack; the ice allowed of our standing off to eight fathoms; and on the other, the land to three-and-a-half fathoms, black mud.

August 11.—In the morning the weather cleared a little, and discovered to us Jones's Island. An erect piece of wood on the shore attracted the attention of the officer of the watch; a boat was sent to examine it, when it appeared to be a piece of drift wood, which had been squeezed up by the ice. The shore was strewn with it, and one spar was as large as our mainmast, and 45 feet in length. We erected a cairn and left a notice. In the forenoon about thirty natives came off in two baidars; from whom we obtained some fish and ducks, in exchange for a little tobacco. They had been about two months on the coast, and trade with the Russian Fur Company. Their surprise, of course, was very great, particularly at the size of our hand-

kerchiefs (the sails); the whaleboats attracted their attention, and they asked if trees grew in our country sufficiently large to make them. The head man possessed a gun, with "Barnett, 1840," upon the lock; this he obtained from the Russians. As a fair specimen of the observation of these people and their aptitude for trade, the following may be taken:—Seeing that we cut the tobacco into pieces to give in exchange for their fish (salmon trout), they began to do the same with the fish. This, however, we would not admit, so they were obliged to come to our terms. During the afternoon, while standing along a low flat island, we observed a flag (a pair of sealskin inexpressibles) upon a lofty pole, and a number of natives around it; we stood for them, but when the boats were pulling in they appeared to regret their temerity, for down came the sealskin, and away they ran. Shortly gaining courage, they returned, and, as we approached, arranged themselves in line upon the beach, and commenced extending their arms above their heads (typical of friendship), which being answered from the boats, perfectly assured them of our amicable intentions. Upon landing they evinced a most manly confidence, rubbing noses, and embracing most vigorously; these were very cleanly, so that the operation was not so unpleasant as it otherwise might have been. Through the interpreter, Mr. Miertsching, we learnt that these people had never before seen a European, nor had they the smallest article of European manufacture about them (Lieutenant Pullen's boats they observed last year, but they were some distance off, and consequently had no communication). They live during the summer months upon these desolate islands, and in the winter retire a short distance on the mainland to their warmer residences. Their women and tents were upon another island. They were a fine active set of young men, average height about five feet six inches. These barter their skins, &c., with a tribe further west, who, in their turn, do the same with others, until they reach the Russian post upon the Colville. To them I intrusted a despatch for their Lordships, which they promised most faithfully should be forwarded to the Colville. I made them a few presents, also a boat's ensign, in commemoration of the first man-of-war whose flag has ever floated in these sterile regions. The magnificence of the gift they could not for some time comprehend, and were loth to touch it; but at length the interpreter made them understand it was sent them by a great chief, and in return they were to be very kind to all white men they met, and show it to them; all this they promised. The chief then seized it in his arms and ran across the island to his canoe, followed by the remainder of his tribe, and no doubt hurried with the joyful tidings to the women. We find a westerly set which prevents our making but slight progress, the wind hanging so much to the eastward.

On the morning of the 12th four baidars came alongside, containing the whole encampment of the tribe we met last night, and also some that we had seen two days previously, from which it appeared they are migratory; they brought off a supply of fish and a quantity of venison,—but the latter was in such a state of high putrefaction we could not touch it. We allowed most of the men to come on board, and, although well aware of their knavish propensities, and, consequently, a sharp look-out was kept upon them, they most adroitly managed to slip both handies of our winch and a small ice anchor into their baidar,

when the fair sex became the recipients. It was by the greatest accident that the theft was discovered by the end of one handle protruding from beneath the ample proportions of the lady, who, when taxed, immediately returned the articles, and informed upon her husband. For this immorality the whole boat was exempted from receiving any present. Working to the eastward observed a few deer upon one of the low islands, but was prevented sending any boat, as a south east current was setting us into shoal water very fast, so that all the boats were required to tow until 8 p.m., when a light air ran us to the westward into six fathoms; the loose ice was in rapid motion, and the larger floe pieces, as they passed, appeared to create a current which frequently turned the vessel completely round against helm and sails, the power of a two-knot breeze being insufficient to counteract it. On the morning of the 13th we were enveloped in a dense fog, among exceedingly heavy and close-sailing ice, through which we attempted to work, but found that endeavouring to avoid one piece we ran upon another, striking occasionally with great force, which determined me to secure to a floe until it cleared. In this we fortunately succeeded, getting one that was grounded in seven fathoms. It was a heavy piece, but not so much so as many that were about us. I took its height above the water in seven places, which gave an average of 11 feet 11 inches; a pack chiefly composed of such would be too powerful a foe for any ship long to contend against. At 8 a.m. of the 14th, it having cleared a little, slipped from the floe, and commenced working to the eastward among masses of ice. At 10.30 a.m. observed a shoal just in time to avoid it; it was completely hidden from view off deck, not being as high as the ice, having a quantity of driftwood upon it, which is in great abundance along the coast. At 3.30 p.m. our course was impeded by another of these low islands, which had the ice resting upon its northern extreme, while the southern point was flanked by a shoal, which connected it with the island seen in the morning. We were thus perfectly hemmed in. The boats were sent to sound, when Mr. Court represented a passage practicable in 3 fathoms. In running through we unfortunately hit upon a spot with only $2\frac{1}{2}$ fathoms, which had escaped observation; we had consequently to lighten the vessel considerably before she got off, which, however, was accomplished without any damage (the bottom being sand) by 11 p.m., having been on shore five hours. I regret to add, that eleven casks of salt meat, which were placed in the first whale-boat, were lost by her upsetting, being compelled to place the provisions in the whalers, the cutters having the bower anchors in them. This was a serious loss; indeed, an irreparable calamity. As soon as we were off, it was my wish to return by the way we came in, but we found that the ice had set upon the shoal we had first observed, and cut off our retreat, under which circumstances I was obliged to anchor and wait a change of wind. Upon the 16th the wind came slightly from the westward, which set the ice in motion off the north point of the island. At 9 a.m. weighed and towed to the edge of the ice, which presented a barrier of about 500 yards in width between us and the open water we wished to get into. We commenced warping at 2 p.m., and so heavy was the ice that it was not until 8 p.m. that we could get through; it fell calm, so made fast to the ice for the night. Next morning, the 17th, a very thick fog, with light north-east wind, and at 4 a.m. commenced kedging to the eastward, but at 7 a.m. gave

it up; the wind freshened, and unable to see for fog. At 2 p.m. it cleared; we slipped from the ice and plied to the north-east amid heavy steams and large floe pieces, vessel striking violently, but unavoidably against them.

August 18.—To-day, from the mast-head, observed the first lane of open water in the pack, extending east and west several miles, but very narrow. In the evening a fresh breeze from the south-west, and almost simultaneously a slight pitching motion was observed, which is considered an infallible symptom of open water being near. It was so foggy that nothing could be seen; but, notwithstanding, I shaped a course north-north-west for Banks's Land, thinking that we had rounded the pack, having coasted it between 400 and 500 miles; we continued the greatest part of the night to run without much obstruction, but upon the following morning, the 19th, our progress was checked by finding that we had run into a deep bight, which compelled us to work back again to the south-east.

August 20.—Before getting clear of this pack, into which we had penetrated a considerable distance, being decoyed by a few lanes of open water, we were compelled to run 70 miles south, which placed us in lat. $69^{\circ} 50' N.$ long. $136^{\circ} 50' W.$ It is seldom that observations can be obtained, this being only the sixth set since the 5th of the month, the fog and mist being more continuous than I ever remember to have met elsewhere.

August 21.—We have succeeded in getting again into clear water. At 1 p.m. made the Pelly Islands, off the mouth of the Mackenzie; the coast is, however, so excessively shoal, that I find it impossible to reach the main land, which I was very anxious to accomplish, but, at the distance of forty miles from it, was obliged to tack in $3\frac{1}{2}$ fathoms; we passed the line of its tide most distinctly marked about ten miles further north, the water being the colour of the Thames at Woolwich, slightly brackish, and its temperature 39 degrees, the sea, four hours previously, being 28 degrees. From what I have observed of the pack, I feel convinced that any attempt to reach Banks's Land through it would only terminate in failure, and the consequent loss of valuable time, but by working between its edge and the shore, have confidence in making a good advance this season; it is, therefore, my intention to pursue the latter method, and, in so doing, deviate from my original purpose of pushing into the ice, as mentioned in my letter to their Lordships, dated the 19th of July.

August 22.—Fog during the whole of the night very dense, but, having much open water upon the eastern shore from the Mackenzie towards Cape Bathurst, had no difficulty in working along it; in soundings from four to eight fathoms,—which latter was the extent that the ice permitted us off shore. At noon a slight clear discovered to us a cluster of islands, which a very indifferent observation (lat. $69^{\circ} 34' N.$, long. $135^{\circ} 9' W.$) points out as those of Pelly.

August 23.—A fine clear day, the temperature rising to 40 degrees at noon. Made the northern extreme of Richard Island from the mast-head, and by a good observation established our position lat. $69^{\circ} 54' N.$, long. $133^{\circ} 48' W.$, the water towards the shore being perfectly clear of ice, which agrees with the account given by Sir John Richardson that the natives observe no ice for two moons; but these never quit the land any distance, for were they to extend their excursions 10 miles further

north than our position, they would see the pack solid and impenetrable. This, however, gives ample space for navigation, the soundings being so exceedingly regular that, during the most foggy weather, we can stand in shore with the most perfect confidence to $3\frac{1}{2}$ fathoms. A whale was seen to day, being only the third since rounding Point Barrow; although upon the day we were off that point seven were counted.

August 24.—Observed huts and natives off Point Warren. I hastily close this communication in the hope of its reaching their Lordships this year through Fort Good Hope, as I imagine these people communicate with the Mackenzie. I have written to the Company's officer at the above-mentioned post, to request his exertions in sending it forward.

In conclusion, it gives me much pleasure to state that the whole of the crew are in excellent health and spirits. The season appears exceedingly favourable, the temperature being mild and the water perfectly free from ice along the shore as far as we can see. It was my intention to touch at Cape Bathurst, with the chance of being able to forward this despatch, which will now not be necessary, but I shall make the most of the remainder of the season by getting to the northward in pursuance of their Lordships' directions.

I have the honour to be, Sir,
Your most obedient, humble Servant,
ROBERT M'CLURE, Commander.

*Her Majesty's Discovery Ship Investigator, off Cape Bathurst, Polar Sea :
lat. 70° 23' N., long. 127° 57' W. August 30, 1850.*

SIR,—Having closed my despatch of the 24th, with an intimation that it would be left near Point Warren with the natives observed from the ship, in accordance with that intention I proceeded to the shore. Why it was not so left I shall, in continuation of my narrative, relate. From the contiguity of this tribe to the Mackenzie, I was naturally led to imagine that their trade was with the Hudson's Bay Company. Great, therefore, was my surprise upon approaching the beach to find, instead of being greeted with the usual friendly signs, that two savages, with gesticulations the most menacing, having bended bows with arrows on their strings, and one with a large knife, which he brandished most significantly, waved us off. Taking no heed of these hostile demonstrations, we pulled in; they retreated, yelling furiously; upon our reaching the full of the beach we made the same signs of friendship which we had made with the Esquimaux further west, but without any effect until joined by the interpreter, who was in full native costume. This gave them confidence, and, upon his explaining our friendly intentions, they approached; but when within about thirty yards, remarking some muskets which the boat's crew had, their fury revived; to pacify them they were laid upon the ground, where they became the object of cautious examination; still unsatisfied, they beckoned to take them to the boat; seeing that nothing short of this would allow of any communication, I sent them away, when they approached, and permitted us to examine their bows and arrows.

Mr. Miertsching informed me that we had been observed at five

o'clock in the morning; the whole tribe had immediately taken to their baidars, with their most valuable skins, and left the settlement, with the exception of the chief and his son, who remained to defend their property, as it would have been undignified to retire when danger was apprehended. A sick son and his mother, seeing our friendly disposition, soon joined us. Dr. Armstrong examined the poor lad's foot; it was in a frightful state of mortification. The chief stated that they were at war with the neighbouring tribes, and had occasional skirmishes with the Indians; that they had no communication with any person belonging to the Great River (Mackenzie), nor had they seen any white people before; but, when the sea freezes (the latter end of next month), the whole tribe proceed west and trade with the Esquimaux whom we had met near Jones's Island. The interpreter told him that he had found a brother in the chief of one of those tribes, whose name was Attawas; the old chief clapped his hands and said he knew him well; that he was the great chief he traded with, and their reason for going such a distance, in preference to the Mackenzie, was that the white man had given the Indians very bad water, which killed many, and made others foolish (drunk), and that they would not have any such water; from this it evidently appears that the Company lose annually many valuable skins, which find their way to the Colville, instead of the Mackenzie.

Observing an old flat brass button suspended from the ear of the chief, he said it was taken from a white man who had been killed by one of his tribe, who went away in his kyaak when the vessel was seen. The white man belonged to a party which had landed at Point Warren, and there built a house; nobody knew how they came, as they had no boat, but that they went inland; the man killed had strayed from the party, and that he and his son buried him upon a hill at a little distance. The only answer we could obtain as to the probable time when this transaction took place was, "that it might be last year, or when I was a child." To examine the grave I was very anxious, but was prevented by the state of the weather, becoming foggy with fresh breeze, which compelled our immediate return to the ship; so, making them a few presents, we parted on very amicable terms. This intelligence appeared of so important a nature, with respect to the white men on the point, that I determined to remain until it became sufficiently clear to land and examine the house, which might possibly contain some indication of the missing expedition—this detained me 18 hours, but to have left with a doubt would have been a subject of perpetual regret.

At 2 a.m., on the following morning, the 25th, we reached the Point, the weather being tolerably clear. The interpreter, Dr. Armstrong, and myself, went on shore in eager expectation of discovering some clue that would lead to a knowledge of the parties; but in this we were miserably disappointed; two huts, indeed, were there, to excite hopes, but upon approaching them we found the woodwork to be perfectly rotten, and of a very old date, without any description of mark to yield the slightest information. The general appearance of the country about the Point was low and marshy, covered with grass, moss, and flowers, the breeding-place of the eider-duck, and every species of wild fowl; we also remarked the footmarks of the fox and reindeer; so fertile a landscape I could not anticipate upon the shores of the Polar Sea. The interpreter, from his knowledge of the customs of the Esquimaux, is of opinion that the story of the white man is traditionary,

—probably some of the early discoverers had been engaged in some affray with the ancestors of the present chief, and one of them had been killed. The present generation inherit the honour, and so identify themselves with their forefathers, speaking of the transaction in the first person, as if they themselves were the actors; which is very likely from the vague definition of the time—"it might be last year, or when I was a child;" so the history of the white man will still continue a mystery. We also heard that last year two boats came from the westward, and landed at Point Warren, and then returned. I cannot imagine what boats these could be, unless they were those of Lieutenant Pullen, who, in thick weather, might have missed the Mackenzie, and, by sights obtained at the Point, discovered his error. They had not seen any this year.

Aug. 26.—N.E. winds and snow, occasionally clearing, so that the land could be discerned, which presented the same low line, with a few conical hills a short distance inland. We saw a few old tents, but not a native. Two whales passed us close to the vessel, one very large, although only in six fathoms of water.

Aug. 27.—Light northerly winds and thick fog. It was my intention to send a boat alongshore, that she might examine it thoroughly, as the water to the eastward of Cape Brown permits us standing within two miles of the coast, and take her on board in the evening; but, under the circumstance of thick weather, I could not venture to do so, fearful of being detained by missing her.

Aug. 28.—Light winds from N.E., with a mild, cloudy day. At noon, Cape Dalhousie S.W. 12 miles, several masses of drift ice, some of the pieces very heavy, which, however, is not any obstruction to our progress, as the space of open water is ample for sailing. We have found, during the last four days, a current varying from 11 to 16 miles daily, setting to the southward. We have had no opportunity of shooting; the greatest part of the birds had taken their southern flight before our arrival; the few flocks that we have seen were very shy, and unapproachable.

Aug. 29.—Very dense fog, with light wind from N.E., which cleared at noon sufficiently to obtain a meridian altitude, and found that we had been set since yesterday south 12 miles, Cape Dalhousie distant S.W. (true) 3 miles; the fog enveloped us again while standing off shore, when we ran into a narrow channel, having but three and a half fathoms on either side, which compelled us to bear up west. This carried us into deep water in about 15 minutes. In the course of the afternoon we fell in with very heavy drift ice, composed of large floe pieces, occasionally becoming entangled in consequence of the thick fog, although there was much open water among it.

Aug. 30.—Wind from the northward, with clear weather. Observing a mark on the beach upon the island off Maitland Point, in Liverpool-bay, sent Mr. Sainsbury (mate) to examine it, and to leave a notice of our passing. Upon his return he reported that an Esquimaux encampment had recently broken up, the traces of their tents and footmarks being quite distinct. We observed from the ship several reindeer, which were not seen by the party on shore. In standing along the coast, observing natives, I ran in to forward this despatch, trusting it might reach the Hudson's Bay Company this year, which is probable, if they are not as great a set of savages as we met near Point

Warren. I hope to round Cape Bathurst to-morrow. This will therefore, be the last communication which it will, in all probability, be in my power to make to their Lordships. The temperature has hitherto been exceedingly mild, thermometer being very seldom below 32°, and, from the present favourable appearance, both of the weather, and state of the ice, I have very strong hopes of getting well to the northward ere the navigation ceases, which will be about the latter end of next month, according to Esquimaux report.

I have the honour to be, Sir,
Your most obedient humble Servant,
ROBERT M'CLURE, Commander.

*Her Majesty's Discovery Ship Investigator, off Cape Bathurst, Polar Sea,
August 30, 1850, in lat. 70° 28' N., long. 128° 33' W.*

SIR,—In accordance with the intention expressed at the conclusion of my last letter, I proceeded in the first whale-boat, accompanied by Dr. Armstrong and Mr. Miertsching, followed by Lieutenant Cresswell and a party of officers in a cutter, bringing a variety of presents. We were met upon landing by two women, who greeted us very cordially, and, through the medium of the interpreter, acquainted me that the remainder of the tribe were at Cape Bathurst, catching whales, which was at no great distance, and they would be our guides. Gladly availing ourselves of this apparently fortunate incident, the boats were directed to pull along shore, while we, ascending the cliff, reached a fine level plain, extending several miles north and south, rich with verdure, and abounding in moss. We preferred walking, hoping to meet some reindeer, for which the pasture was excellent; but mile after mile was walked without any appearance of the fishing party. Arriving, after the expiration of three hours, in a small bay, we were, however, gratified at being told this was the spot where two boats, the year before last, had pitched their tents for the night (Sir J. Richardson), and we had to go a very little further. On reaching the next bay, we found there two tents, which our guides said belonged to them; but the Cape, or any appearance of the tribe, could not be seen. We declined going any further, as, in consequence of the wind falling light, the vessel was by this time hull down. We were then kindly invited to become partakers of their tents, and to go on the next morning, which hospitable offer was not accepted; but, bartering several articles in exchange for salmon, and making them a few presents, we returned on board, when, at 10.30 p.m., it becoming dark and foggy, and getting into 3½ fathoms, we anchored for the night.

August 31st, at daylight, found that we were between the mainland and Bailley's Islands, about a mile from the latter, the weather still foggy, with a moderate N.W. breeze; but determined, if possible, to discover the fishing party, at 7.30 a.m. I left the ship, with Mr. Miertsching and Dr. Armstrong in the cutter, and, after coasting about ten miles, discovered, upon the extremity of Cape Bathurst, a large encampment, consisting of 30 tents and nine winter houses, numbering a little over 300 people. Upon landing upon a very low isthmus, which connects within a few yards the islands and mainland, we remarked a commotion at the village, and a number of men rushed down the cliffs, launched

their kyacks, and crossed to meet us. Hauling these light and elegant skiffs on the beach, they advanced with knives drawn and bows bent, evidently prepared for hostilities. Finding by our gestures that our intentions were amicable, their bows were returned to their sealskin cases, but the knives they still retained. The interpreter told them that our visit was friendly, and that they should put away their knives. "Yes," said they, "when you do your guns." To be allowed to carry the musket appeared a great favour, for which they presented you with their knife, as a token of friendship. We remained upwards of an hour; during the greater part of the time, Mr. Miertsching was in earnest conversation with the chief—a fine, intelligent, middle-aged man—upon the necessity of his forwarding our despatches to the Mackenzie, which he promised most faithfully to perform, for which he was to receive a musket and ammunition, and, upon his delivering the packet, a further reward equal in value to a silver fox-skin. He, however, said that their tribe do not trade with the Mackenzie, but with another further south, who in their turn traffic with the Indians who are in the service of the Hudson's Bay Company; so, as they have to pass through three tribes of the heathen before they come into the hands of civilized man, I think it extremely probable that they may never reach their destination. Mr. Miertsching, from his knowledge of the Esquimaux character, thinks otherwise, and imagines that the chief will himself carry them. The perfect ease with which this gentleman understands and converses with these interesting people surprises them very much; they were most anxious for him to remain, promising to be very kind. The chief presented his daughter, a very pretty girl of about 15, who should be his wife; tents and all appurtenances were to be added. While these negotiations were going forward, upwards of 100 persons had descended from the village; with such a concourse I did not think it prudent to open the bag containing the presents, well knowing their cupidity is easily excited by the display of such valuables, when they are not to be relied on. We consequently returned to the boat. When the chief was instructed in the use of his gun, he showed himself an apt pupil, and when the ammunition was given into his hands, expressed himself very much gratified at the gift, and walked towards the village with his chief men. A line was then made on the beach, which the recipients of gifts were not to pass (and this they perfectly understood), and the interpreter then commenced the distribution. For a little time order was maintained; but the fair sex becoming clamorous and closing round, the line was broken, and, to prevent being driven into the water, we were compelled to retreat to the boat, which was lying aground about 20 yards from the beach. By this manœuvre, we escaped from all that had not on water-tight boots, but still about 40 surrounded the cutter; and, although all the crew were stationed round her to prevent their getting on board, so eager and persevering were the women that several were lifted in, endeavouring to seize everything within their reach; one of them, in the most dexterous manner, slipped the compass out of its box into the breast of her jacket, and with difficulty it was recovered. It was only by great firmness and stoppage of the supplies that we reduced them to order, or to quit the boat. The presents being at length distributed, and every one in good humour, we wished them farewell, and commenced launching the boat, in which operation they most vigorously assisted, and 17, in their fairy kyacks, escorted us to the ship, arriving

about a quarter of an hour before we did—except one, who having got some little distance off the shore, encountered a fresh breeze and rough sea. We shortened sail, and took boat and all in. The poor fellow being drenched, we offered him a little brandy, which he drank at a mouthful, not being aware of its strength. He suffered the sensation to subside without evincing (except by his eyes watering) any symptom of vexation, and then asked for water. Many came on board the ship, but one only ventured below, who was exceedingly surprised to find that we had not tents, but houses (cabins), and said he should have many wonderful things to relate when he went home. This tribe is a fine intelligent race—cleanly, handsome, and well grown; and I deeply regret that so little has been hitherto attempted in civilizing them. I sincerely hope that the day is not far distant when this interesting people may be redeemed from their deplorable state of heathen darkness.

At 5.40 p.m. we weighed, with a moderate breeze from the S.W., and reached to the S.E. for the purpose of clearing Bailey's Islands. At 9 tacked and stood to the N.W., the wind becoming light and variable. During the night we made but little progress; and at 8 a.m. on the morning of September 1, observed Cape Bathurst, N.E. by E. 6 miles. In the course of the forenoon many kyacks came off. The natives, now assured of our friendly intentions, came on board without the slightest reluctance, and, through the medium of the interpreter, acquainted us that during the night they had been preparing a feast, roasting whale and venison, and had salmon, blubber, and other delicacies, besides plenty of skins, ready at the tents, and hoped we would come on shore, which, indeed, I should have very much enjoyed had the vessel been in a less precarious position; but under the present circumstances it was impossible, which it appeared that those on shore understood, for in the afternoon a great many of both sexes joined us; and, all being clamorous to get on board, we were obliged to take their kyacks on deck. Seeing their boats were in safety, they made themselves perfectly at home, examining every article of furniture most minutely. The pictures and looking-glasses in the officers' cabins were objects of much admiration. Many were dancing with our men, and so mutually happy were all parties, that it was near 6 o'clock before I could get them to leave the ship; indeed, had not the interpreter told them that we were going towards the pack, and would not again come near their tents, I very much question if we should have got them away without compulsion. We understood from them that the main pack is permanent, never leaving the shore above 12 or 14 miles. They designate it as the "land of the white bear," as it abounds with those animals, which they appeared rather to dread, as, when we stood towards the pack in the forenoon, they entreated not to be left there, as they were fearful of the bear now that so many of their women were with them. One mother mentioned that she had her little child carried away by one of them a short time previous, while playing on the shore a little distance from her. The poor creature shed tears in relating the catastrophe. At parting several presents were bestowed upon them, which had the effect of eliciting promises of friendship for us or any of our white brethren who might come on their coast. These people had no article of European manufacture, except a few iron pots, which—certainly they gave a very formidable price for—no less than five of the best silver fox-skins for each. The tribe leave the Cape about the 20th of September, when the

ice is sufficiently strong to bear their sledges, for the purpose of bartering with the bordering tribe; they then go to their winter houses some distance inland, with the exception of a few families, who live the entire year upon this bleak and inhospitable shore.

September 2nd.—Fine day, with light northerly wind, ran along the pack edge, the ice being heavy and impenetrable, not a drop of water to be seen from the mast-head among it; the water between it and the shore is practicable, although encumbered with much loose ice. Experienced a strong current from the south-east, which set us to the westward of Bailey's Islands. Upon the morning of the 3rd the wind gradually veered to the southward, bringing with it a very dense fog, and, being at the time surrounded with heavy floe-pieces and close sailing ice, through which it was necessary to pursue our course, so that every advantage might be taken of the favourable breeze, the vessel occasionally came into violent collision. At noon it cleared a little, when Trail Point bore S.S.W. about seven miles; sounded in 65 fathoms (mud). The nights having a few hours' darkness, blue lights and rockets are fired for the purpose of attracting the attention of any parties that might be returning from Wollaston or Victoria Lands bound to the Mackenzie.

September 4th.—Light variable winds, with warm weather, the temperature rising to 41°; the water along shore free from ice; about four miles to the westward of the Horton, sounded in 83 fathoms, and shortly after passed over a narrow shoal having but 13 fathoms; a few pieces of heavy ice were grounded upon it; the land appears to average from 80 to 100 feet in height, composed of blue clay, intermingled with sand. Many whales have been about the ship—at one time eight, and from one to four the greater part of the day. A bear, the first that has been seen, was likewise remarked upon some loose ice in-shore, but time would not allow of its being pursued.

September 5.—The weather, which had been squally, accompanied by a thick fog, during the early part of the day, cleared towards noon, when a large volume of smoke was observed about 12 miles S.W., and five to the eastward of the Horton, in the same spot that it had attracted our attention yesterday. As divers opinions were in circulation respecting its probable cause, and the ice-mate having positively reported that from the Crow's-nest he could distinguish several persons moving about, dressed in white shirts, and observed some white tents in a hollow of the cliff, I certainly had every reason to imagine they were a party of Europeans in distress, convinced that no traveller would remain for so long a period as we had remarked the smoke in one spot for their pleasure; therefore, to satisfy myself, equally as others, I determined to send a boat on shore, as it was now calm. The first whaleboat, under Lieutenant Cresswell, with Dr. Armstrong, and Mr. Miertsching, was despatched to examine into the cause, who on their return reported the smoke to emanate from 15 small mounds, of volcanic appearance, occupying a space of about 50 yards, the place strongly impregnated with sulphur, the lower mounds being about 30 feet above the sea level, the highest about 50 feet. The land in its vicinity was blue clay, much intersected with ravines and deep water-courses, varying in elevation from 300 to 500 feet; the mark of a reindeer was traced to a small pond of water immediately above the mounds; a notice of our having landed was left, which would not long remain, as the cliff is evidently rapidly crumbling away. Thus the

mystery of the white shirts and tents was most satisfactorily explained. A breeze shortly springing up from the westward, we made sail to the N.E.; during the night it freshened considerably, with rain and thick weather. This, combined with four hours' darkness, compelled me to shorten sail, although loath to lose the full benefit of the fair wind; but we struck so heavily against large blue floe-pieces that were barely above the water, that the greatest vigilance and attention were insufficient to avoid them, so no alternative remained to prevent disaster. A great many seals and whales were seen in Franklin-bay; no less than 15 of the latter were playing around us at one time, but very small, or, according to Greenland fishing phraseology, "having only three-foot bone," so Mr. Newton, the ice-mate, informs me. At 4 a.m., upon the morning of the 6th, we were off the small islands near Cape Parry, bearing N.E. by N. ten miles, with a fine westerly breeze, and loose sailing ice, interspersed with many heavy floe-pieces; the main pack was about three miles to the N.W., apparently one solid mass. At 11.30 a.m. high land was observed on the port bow, bearing N.E. by N., distant about 50 miles. On approaching it, the main pack appeared to be resting upon the western shore, which side it was my intention to have coasted had it been possible; the eastern one being, however, comparatively clear, as far as could be ascertained from the mast-head, decided me to follow the water, supposing it an island round which a passage would be found into the Polar Sea. We continued working to windward the whole of the night, and by 9.30 a.m. of the 7th were off the South Cape,—a fine bold headland, the cliffs rising perpendicularly upwards of a thousand feet, which was named "Lord Nelson's Head," in memory of the hero, whose early career was connected with Arctic adventure. We shortly afterwards hove to, and, with the first whaleboat and cutter, landed and took possession, in the name of Her Most Gracious Majesty, calling it, "Baring's Island," in honour of the First Lord of the Admiralty. A pole was erected, with a large painted ball upon it, near a cask which was left, containing a notification and other particulars of our having been there. The sight obtained by artificial horizon place the signal-staff in latitude $71^{\circ} 6' N.$, longitude $123^{\circ} 0' W.$; and the fall of tide was ascertained to be six inches during one hour and a half. We observed numerous recent traces of reindeer, hare, and wild fowl; moss and divers species of wild flowers were also in great abundance; many specimens of them equally, as of other subjects of interest to the naturalist, were selected with much care by Dr. Armstrong. From an elevation obtained of about 500 feet we had a fine view towards the interior, which was well clothed with moss, giving a verdant appearance to the ranges of hills that rose gradually to between 2,000 and 3,000 feet, intersected with ravines, which must convey a copious supply of water to a large lake situated in the centre of a wide plain, about 15 miles distant. The sight to seaward was favourable in the extreme; open water, with a small quantity of ice, for the distance of full 40 miles towards the east, insured good progress in that direction. Returning on board at 1 p.m., we made sail to the eastward, having a beating wind. Continued working along shore, in soundings varying from 9 to 76 fathoms; dark mud mixed with yellow clay, until close to the land, when it changed to fine white sand. The weather becoming foggy, our lead was the only guide until 10 a.m. of the 9th;

it then cleared for a short time, when land was observed to the eastward, about 15 miles distant, extending to the northward as far as the eye could reach. The mountains in the interior are lofty and snow-covered, while the low ground is quite free. Several very remarkable peaks were discernible, apparently of volcanic origin. This discovery was named Prince Albert's Land, in honour of Her Majesty's Consort, in lat. $72^{\circ} 1' N.$, long. $119^{\circ} 25' W.$ Continuing our course slowly to the N.E., in consequence of thick fog, snow, and baffling winds, at 8 a.m. of the 10th we were near two rocky islets, named after her Royal Highness the Princess Royal, the largest being about 600 feet in height, and a mile and a half in length, the southern and eastern sides being precipitous; the other was about a quarter of a mile long and a hundred feet high, gradually sloping to the water's edge, representing very much the appearance of an inverted whale-boat. The wind becoming fair, and weather clearing, all the studding sails were set with the hope of reaching Barrow's Strait, from which we were now distant about 70 miles. The water was tolerably clear in that direction, although much ice was lying against the western land, and from a shoal extending towards it from the largest of the Princess Royal Islands, upon which we obtained 13 fathoms water; much loose ice was also in motion, and while endeavouring to run between two floes, at the rate of four knots, they closed so rapidly, one upon either beam, that our way was instantly stopped, and the vessel lifted considerably; in this position we were retained a quarter of an hour, when the pressure eased, and we proceeded. Our advance was of short duration, as at 2 p.m. the wind suddenly shifted to the north-east and began to freshen; the water, which a few hours previous had excited sanguine hopes of a good run, became soon so thickly studded with floes, that by 4 p.m. there was scarcely sufficient to keep the ship free; this by much exertion was, however, effected, until 2 a.m. of the 11th, when we were beset; at 5 a.m. the ice again opened, which admitted of our getting a few miles to the north-east, until 11.30 a.m., when our course was impeded by a very dense pack. At 7 p.m. the wind shifting to the north-west, set the whole body of the ice upon the eastern shore, which shoaled our water from 80 to 50 fathoms in one hour. A clear space of two miles was, however, the result of this movement, in which we continued working the whole night, and upon the morning of the 12th we perceived we had lost some miles, as the pack was in motion to the southward; also the further mortification of seeing the whole of the western shore perfectly exempt from ice, while the space of water we occupied was becoming rapidly more limited by very large and heavy floes, through which we were unable to force, and at 11 a.m. were again beset. A fresh gale, with snow, which continued until the morning of the 13th, pressed the ice so heavily upon the vessel that the rudder was unhung to prevent its being damaged; during the night the temperature fell to 10° , and the land became completely snow-covered. On the 15th, however, it rose to 30° , with the wind from the S.W., which set the ice in motion, compelling us to shift our berth, to avoid collision with an immense floe. At 2.30 a.m. commenced warping, which tedious and laborious duty continued with but slight intermission until half-past 12, when we passed into clear water. A run of five miles to the N.E. brought us to another icy field too dense to penetrate, extending from shore to shore, which here are about twelve miles asunder.

The weather towards sunset becoming thick with snow, we ran into six fathoms, and secured to a piece of grounded ice under the western land, with the intention of remaining during the night, as they were then long and dark; therefore, navigating among close ice is quite impracticable. The wind, which had been fresh from the S.W. during the day, about 7 p.m. fell light, when the ice in the N.E., no longer restrained, spread itself abroad with such rapidity that at a little after eight it was observed approaching, its white line, clearly defined, running like an unbroken wave along the dark smooth water. To turn the hands up, make sail, and cast off the warps, was but the work of a few minutes; yet, with such violence was it impelled, that we had scarcely time to tow clear of the piece we had been fast to before it encircled the vessel, sweeping her away to the S.W. into five fathoms. I expected to have been driven on the beach: fortunately, from some unseen cause, its course was changed to the S.E., which took us into 20 fathoms, thus fluctuating between hopes and fears until 11.45 p.m., when its progress was mysteriously arrested, and, gradually opening out, allowed of our running into clear water. As the navigable season was now drawing to a close, which the fall in the temperature, as well as the formation of pancake ice upon the surface of the water whenever the wind became light, unmistakably pointed out, it became a subject of anxious consideration what course to adopt in regard to the safety of the vessel; whether, by running to the southward, in which direction the water was still open, to endeavour to obtain a harbour in one of the bays indenting the south-eastern side of Baring's Land, the nearest, probably, being 60 miles distant, and then only the chance of finding a safe anchorage, which, if our search proved a failure, would place the vessel in a worse situation than at present, exposing her to a wide sea range, subject to heavy pressure from the enormous massive floes with which the Polar Sea is encumbered, but from which we are here protected by the Princess Royal Islands; or to continue our advance to the north-east as long as the season permitted, and then submit to the only alternative, that of hazarding a winter in the pack. I decided upon the latter, for these reasons,—that to relinquish the ground obtained through so much difficulty, labour, and anxiety, for only the remote chance of finding safe winter quarters, would be injudicious, thoroughly impressed as I am with the absolute importance of retaining every mile to insure any favourable results while navigating these seas, the loss of which might frustrate the operations of a whole season. Above all, being in the vicinity of Banks's Land, and in the direction in which Sir J. Franklin would, in all probability, have endeavoured to penetrate, could he have reached Cape Walker, I therefore considered that our position was most eligible for carrying into full effect the instructions of my Lords Commissioners of the Admiralty, when the season becomes favourable for dispatching parties upon this important and interesting search. These, Sir, were the considerations which influenced me in this "choice of difficulties," and they will, I trust, appear of sufficient validity to meet with the concurrence of their Lordships, hazardous as was the experiment. At 6 a.m. of the 17th, the wind, which had been light from the N.W., gradually died away, when we were almost immediately beset. There were several heavy floes in the vicinity; one, full six miles in length, passed at the rate of two knots, crushing everything impeding its pro-

gress, and grazed our starboard bow. Fortunately there was but young ice upon the opposite side, which yielded to the pressure; had it otherwise occurred the vessel must inevitably have been cut asunder. In the afternoon we secured to a moderate-sized piece, drawing 8 fathoms, which appeared to offer a fair refuge, and from which we never afterwards parted; it conveyed us to our furthest N.E. position, lat. $73^{\circ} 7' N.$, long. $117^{\circ} 10' W.$, back round the Princess Royal Islands. Passed the largest within 500 yards to lat. $72^{\circ} 42' N.$, long. $118^{\circ} 42' W.$, returning along the coast of Prince Albert's Land, and finally freezing in at lat. $72^{\circ} 50' N.$, long. $117^{\circ} 55' W.$, upon the 30th of September, during which circumnavigation we received many severe nips, and were frequently driven close to the shore, from which our deep friend kept us off. To avoid separation, we had secured with two stream cables (one chain) two six and two five inch hawsers. As our exposed position rendered every precaution necessary, we got upon deck twelve months' provisions, with tents, warm clothing, &c., and issued to each person a pair of carpet boots and blanket bag, so that, in the event of any emergency making it imperative to quit the vessel, we might not be destitute. On the 8th of October our perplexities terminated with a nip that lifted the vessel a foot, and heeled her four degrees to port, in consequence of a large tongue getting beneath her, in which position we quietly remained. As, however, there was a probability of being thrown upon the ice, it was requisite that a smooth surface should be made to receive the vessel, which was accomplished with much facility, by blasting the hummocks along the edge of the floe for about 150 yards, and 20 in breadth. This done, and every indication of the pack being now thoroughly cemented with a temperature of seven *minus*, we completed housing over, and other arrangements for our winter quarters. As the weather upon the 10th was calm and fine, and the ice quiet, at 8.30 a.m. left the ship, accompanied by Lieutenant Cresswell, Dr. Armstrong, and Mr. Miertsching, with a party of seamen, carrying a pole &c., to plant upon the shores of Prince Albert's Land, to which we proceeded to take possession in the name of her Most Gracious Majesty. This accomplished, we walked to the highest hill observable at the distance of five miles, to an elevation of 1,500 feet, which gave an extended view in every direction. The country was very hilly, with deep ravines and large lakes. This appears the general character of the land on both shores. The course of the water towards the N.E. we were anxious to trace, hoping to see an opening into Barrow's Strait. In this we were disappointed, from the many low points intervening, rendering it impossible to ascertain the land from the sea; both being frozen. On our return we had the mortification to find that the land and sea ice had separated about 100 yards along the whole line of coast. We walked by its margin for some miles, hoping to meet with a loose piece of ice to ferry us across; but night closing rapidly subjected us to so many falls, owing to the inequalities of our road not being distinguishable, that we were compelled to halt, and commence firing to attract attention; but our distance from the ship was too far to render our signals of any utility. At 8.30. p.m. Mr. Court, with one of the many parties that were searching the ice in all directions, fortunately saw our flashing, and made for it; but, unsuspecting our dilemma was created by open water, he had no boat; immediately returning he met with a party which had two of Halkett's.

These were soon launched ; only getting them through the pancake ice, which was by this time an inch thick, was attended with great difficulty. The sea ice also rapidly setting to the northward, the boats after each transit had to be carried south before being launched, so as to insure their reaching the only spot from which the party to be relieved could embark. This operation commenced at 10.30. p.m., and by midnight we were all over, and reached the ship at 2.30 a.m., all parties meeting with heavy falls, but receiving no accident of consequence. I cannot refrain from noticing the excellence of Halkett's boats, or speak in too high terms of the ingenuity of their inventor. These admirable little articles were inflated on board, and with the greatest facility carried upon a man's shoulders over ice which, from its excessive roughness, no other boat could by any possibility have been got across without being smashed. By their means a large party were relieved, who were without tents, clothing, fuel, provisions, or in any way provided to withstand the severities of a polar night, with the thermometer 8 degrees *minus*. The consequences to them might have been very serious ; as it was, however, the annexation of Prince Albert's Land to the British Crown was considered to have terminated so favourably, that I directed an extra supper and allowance of grog to be issued to my energetic crew as a reward for their eight hours' vigorous exertions.

Being dissatisfied with the view obtained from Prince Albert's Land respecting the waters we were now in as to their connexion with Barrow's Strait, which would settle the question of a north-west passage, I determined to proceed in that direction with a travelling party, although rather late in the season, as soon as I felt that the vessel might be safely quitted, which I judged would occur after the ensuing spring tides, if at that period there was no commotion among the ice. Accordingly, upon the 21st, everything being favourable, I started with Mr. Court, second master, and the following men,—Robert Calder, captain of the forecabin ; Robert Tiffeney, captain of the maintop ; Michael Flynn, quartermaster ; George Brown, A.B. ; Peter Thomson, captain of the foretop ; and James Saunders, private, Royal Marines. The ice, for two miles from the ship, was so rough that Lieutenant Haswell and the whole of the ship's company were occupied in carrying the sledge and different articles of lading. At 8 a.m. the sledge was finally packed, when, with the fatigue party, in charge of Mr. Wynniatt (mate), accompanied by Dr. Armstrong, as an amateur, we set off towards the north-east at noon ; the fatigue party having taken us eight miles, were directed to return. Soon after they quitted us we got among very difficult ice. The sledge was broken, but, quickly fishing it, we proceeded. Unfortunately, scarcely an hour had elapsed, when in crossing a floe, the inequalities of which were imperceptible, it came down with such a crash that it broke into pieces. This was unlucky, but, pitching our tent, Mr. Court and Peter Thomson (captain of the foretop) started for the ship, where they arrived at 7.30 p.m., and rejoined the next day at 2 p.m., with a fresh and larger sledge, and a fatigue party, with Mr. Wynniatt, to carry the damaged one back. (This party, upon my return, I found did not get on board until the following day, being stopped by a heavy snow drift, but, having a tent and provisions, did not suffer.) As soon as the new comers were refreshed, the sledge was packed, and by 3 p.m. we were again off, continuing our course, without any further disaster, until 3.45 p.m. of the 26th, when we had the

extreme gratification of pitching our tent upon the shores of Barrow's Strait, in lat. $73^{\circ} 31' N.$, long. $114^{\circ} 39' W.$ (chronometer), (long. $114^{\circ} 14' W.$ lunar), nearly on the line, as represented on the charts, where Sir Edward Parry has very correctly marked the loom of the land. Upon the following morning, before sunrise, Mr. Court and myself ascended a small hill, about 600 feet in height, so that we could command an extensive view of 40 or 50 miles. The extreme point of Prince Albert's Land bore long. $78^{\circ} E.$ true, about 35 miles, the furthest land N.N.E., 8 miles. The Melville Island shore could not be discovered, but in that direction the ice appeared to be very heavy, and the floes exceedingly large. While we were making these observations the crew were busily engaged erecting a cairn about 15 feet above the water (which had been named Prince of Wales's Strait, in honour of his Royal Highness), in which a copper cylinder was deposited. The spot is so conspicuous that any person passing along the shore must remark it. All being completed by 10 a.m. of the 27th, we turned for the ship, arriving upon the morning of the 31st, having in nine days made in a direct line 156 miles by observation, with a temperature of between $+7$ and -15 degrees. Upon the afternoon of the 30th the weather, which had been overcast, suddenly brightened, showing the Princess Royal Islands, distant about 12 miles. At 3 p.m. I left the sledge, with the intention of getting early on board, to have everything in readiness for the comfort of the party, anticipating their arrival at 9 p.m. Unfortunately, the weather became again foggy about 5 p.m., followed soon by darkness; consequently my way was speedily lost, compelling me to wander about the floe during the night, with a temperature of from 5 to 15 degrees *minus*, when at 7 the next morning I had the mortification to find that I had passed the vessel 4 miles, which I reached by 8.30 a.m., and immediately dispatched a party to assist Mr. Court, who was at 5 miles distance, having most judiciously encamped about 7 miles from the ship when the fog became too dense to travel.

I was agreeably surprised to learn from Lieutenant Haswell that on the 29th a party, consisting of Messrs. Sainsbury, Paine, Miertsching, and Newton, while sporting upon Prince Albert's Land, had encountered a herd of musk cattle, two bulls, a cow, a heifer, and a calf, and most adroitly shot the whole, which yielded 1,296lbs. of excellent nutritious meat. A supply thus opportune and unexpected may be regarded as a most favourable termination to our season's operations, in which we have been nearly enabled to carry out verbatim their Lordships' instructions, in reaching the ice by the 1st of August, and establishing a position near Banks's Land, which service has been performed under circumstances over which we could exercise but little control, our only credit consisting in seizing the advantages that an Invisible Power scattered along our road through fields of ice, where all human exertion would have been as unavailing as the feebleness of a child to advance us one yard.

The winter—that dreary period of the voyage which I had looked forward to with much apprehension,—passed mildly away, there being very little snow or wind, without our sanitary state being in the slightest degree impaired; for which happiness I assign these reasons—viz.,

1. The unflagging spirits and cheerfulness of the men.
2. The excellence of every species of provisions.

3. The free ventilation of the lower deck.

4. The extreme attention of Dr. Armstrong (upon our monthly inspections) to the state of the crew.

So that the month of March found us in a most healthy and efficient condition. Accordingly, upon the 3rd we commenced our preliminary duties by taking a 30-foot whale-boat to the larger Princess Royal Islands, where it is my intention to leave three months' provisions for all hands, that, at the breaking up of the ice, should the vessel unfortunately get crushed, we may have a certainty to fall back upon, which will enable us to reach the *Plover*, without hazard of starvation. This duty being completed, as well as the transporting of another whale-boat, besides one of Halkett's, to the eastern shore, distant 5 miles, for the facility of allowing the travelling parties going along that coast to reach the islands, should the ice break up and carry the vessel away during their absence, arrangements were then made for the searching parties; and the weather becoming very favourable for travelling, upon the 18th of April three were dispatched under Lieutenant Haswell, S.E. shore; Lieutenant Cresswell, N.W. shore; and Mr. Wynniatt (mate), N.E. shore, with six weeks' provisions each.

At 1 a.m. May 6, Mr. Wynniatt (mate) having broken his chronometer at the distance of 120 miles from the ship returned; but all being in good condition, they were completed to 30 days' provisions, and at 6 p.m. were again *en route*. At the same time, two hunting parties with tents, &c., left the ship—one for each side of the Strait, as some deer had been seen, besides some ptarmigan and four hares shot. This early indication of fresh provisions is a subject of deep congratulation, independent of the very healthy and exciting occupation for the crew, who are all eager for the sport.

May 20.—Lieutenant Cresswell returned in consequence of the severe frost-bites of two of his men, having reached lat. 74° 16' N., long. 117° 40' W., being absent 31 days; during the greater part of the time he was subject to strong N.W. winds, sweeping from the Polar Sea, through Barrow's Strait, which, meeting him in the face, rendered it exceedingly difficult to walk against, the thermometer being frequently 15° below zero. He, however, traced the coast-line, which, for about 70 miles along Banks's Land, was very precipitous, averaging from 1,000 to 1,400 feet, from which it gradually sloped to a point trending to S.W., apparently the extreme of the land in that direction, as it abruptly turned to southwards. An elevation of a thousand feet, aided by an exceedingly clear atmosphere, left no doubt in his mind that the Polar Sea was before him, and that Banks's Land is a part of Baring's Island. He was anxious to make a further advance, and encamp during two days, with the hope that the invalids would recover, but, finding them getting much worse, he very properly deemed it advisable to return with all haste to the ship. Before reaching her, however, both had to be borne upon the sledge, which threw the work upon four men; when, getting into heavy snow, the officer had to fall in at the drag-ropes; nevertheless, the working-party arrived in most excellent health and spirits.

On the 21st a large bear was killed. Upon examination of the stomach an extraordinary medley was discovered, consisting of raisins, tobacco, pork, and adhesive plaister, so that I came to the conclusion that the *Enterprise* must be near, the animal not having been seen

before near our dirt-heap, nor were there any traces of him about the ship. I therefore determined to send a party to the S.W., the only direction we had no travellers, to satisfy myself upon the subject. Accordingly, at 6 p.m. on the 22nd, Lieutenant Cresswell and his party, completed with two fresh hands, were again dispatched with provisions until June 10.

Upon the 24th the above mystery was satisfactorily solved. Some men, in pursuit of a bear about half a mile from the ship, picked up a preserved meat-tin, with articles in it identical with those found in the stomach of the bear killed on the 21st; the foot-prints of the animal were likewise abundant on the snow. This evidence was perfectly conclusive as to the locality where bruin had obtained his dainties. This being the anniversary of the birthday of Her Most Gracious Majesty, a Royal salute was fired, and the colours displayed, in celebration of the event.

29th.—Lieutenant Haswell and party returned, all in the most perfect health, having traced the coast towards Wollaston Land, to lat. $70^{\circ} 38' N.$, long., $115^{\circ} W.$, from which point, the day being remarkably clear, he observed the outline of land to the distance of full 40 miles trending to the S.W., but having advanced 25 days, he considered it prudent to proceed no further. Two large inlets and a deep bay were examined, besides an archipelago of small islands along the northernmost shore of the southernmost inlet, which is high, bold, and stratified, each inlet trending to the E.N.E. from 80 to 90 miles. The whole coast was strewn with driftwood, and many vestiges of Esquimaux encampments were met with, but of a very old date. Upon returning he was most surprised to find a party, consisting of 18 natives, encamped upon the ice, a few miles from the N.W. point of the northernmost inlet, in quest of seals. They were very friendly and well-disposed, but, not understanding each other, no information could be obtained. They exchanged a few presents, and upon that day week he arrived on board, having remained out his 42 days, thereby fulfilling his instructions to the letter. In consequence of the above, I immediately decided upon proceeding to these people, for the purpose of obtaining information that might determine the question relating to the Prince Albert's, Wollaston, and Victoria Lands, as to their forming part of the American continent, or whether each was an island; therefore, taking Mr. Miertsching (our invaluable interpreter), and 12 days' provisions, at 6 p.m. we started, and early on June 3rd fell in with them, about 10 miles to the northward of the point where they were first met with. They conversed freely with the interpreter, giving every information we required relative to the trending of the coast as far as they knew, which was some distance along Victoria Land; this they did by tracing upon a large sheet of paper, which I brought for that purpose, continuing a sketch which Mr. Miertsching had made from the ship to their tents, which they immediately comprehended, and, as they were very particular in placing the islands of Sutton and Liston, with three smaller ones not mentioned in the chart, off Wollaston Land, I am fully persuaded of its correctness, and only regretted that they could not go further (a tracing of which accompanies this narrative). They describe a large land opposite Wollaston, called "Nunavaksaraluk;" this, of course, is America, to which they had never been, as they only trade with the Esquimaux to the S.E.,

nor had they the slightest article of European manufacture about them; the use and sight of iron was perfectly new, all their implements being copper—their spears and arrows barbed with the same. The copper ore is remarkably fine (but, not observing any when at the tents, the specimen being given me by one of our men some time after quitting them), unfortunately, we lost the opportunity of inquiring where it was procured; but I am inclined to think that it comes from the south-east tribes, in their bartering transactions, as the few and simple ornaments which they possessed were of that metal, and obtained thence. These are a kind, simple, and purely pastoral tribe, devoid of the knavish propensities which so strongly characterise those upon the Mackenzie and Colville, where intercourse with civilized man has demoralized the savage. Upon displaying the presents brought for them, the utmost propriety was observed; although, doubtless, all were anxious to participate in these treasures, there was not that eagerness to seize, which rendered our interchange with the other Esquimaux so troublesome; so far was it from these to do so, that it was with difficulty we could persuade them to accept them without our receiving an equivalent, they inquiring of the interpreter, after each article was given them, what we wanted for it. A piece of scarlet cloth, which I tied round a girl's neck, remained there until we were going away, when she ran up to Mr. Miertsching to ask what she was to give in exchange, and, when assured it was a gift from the chief, she gracefully acknowledged it with a smile. No weapons were observed among them, except for the chase; their whole demeanour bespoke peace. They live near their present locality the whole year, not going any further to the northward, nor do they believe that there are any others in that direction; but to the S.E., along Victoria and Wollaston Land, the coast is thickly populated. It appears very extraordinary that they do not even possess traditional legends of their ancestors having been north, where the numerous traces which we meet with upon both sides of the Straits, as well as on the large Princess Royal Island, show that at one period the whole of this coast must have been densely populated. Their language, Mr. Miertsching observes, is identical with that spoken upon the Labrador coast. At half-past 9 o'clock we left this interesting people on our return to the ship, which we reached at 7 p.m. of the 5th, exceedingly gratified by the result of our pleasant excursion, our only misfortune being Cornelius Hullott, my coxswain, having both feet badly frost-nipped. At 5 a.m. of the 7th, Mr. Wynniatt (mate) returned with his party, having been fifty days under the tent. From his exploration of a portion of the south-eastern shores of Barrow's Strait, as far as lat. 72° 6' N., long. 107° 42' W. (D.R.), whence the land was observed for about 15 miles, trending to the N.E., after rounding Point Peel, lat. 73° 21' N., long. 112° 30' W., the north-west point of Prince Albert's Land, he reports it to be in all respects, as to formation, the same as in this vicinity, for the distance of about 40 miles, when, upon crossing a deep inlet, the land assumed a north-west aspect, and became high, precipitous, and barren. No drift-wood of any description was met with, but the ice lay against its base in heavy and unbroken masses. Further to the eastward a lesser one was circumambulated, having in it several small islands, with its southern shore formed of stratified cliff, having an elevation of about 800 feet. Upon the 10th, at 7.45 a.m., Lieutenant Cresswell and party, having

completed their 19 days, returned from their search towards the S.W., to lat. $71^{\circ} 10' N.$, long. $123^{\circ} 4' W.$, making, in the aggregate, 50° under the tent, during which he had coasted three sides of Baring's Island, from the north shore of which he looked upon the Polar Sea, and upon the south walked 24 miles on it; both presenting the same smooth surface, which I consider to be attributable to the long prevalence of north-easterly winds, at the termination of the navigable season setting the heavy ice, which we encountered, and saw resting upon the western side of the island, over to the American and Asiatic shores, which may cause the great difficulty in rounding Point Barrow late in the season. Unfortunately the weather became overcast, which limited his view to the northward, only allowing him to observe that the coast was high and bold. Upon this excursion he met with four partitions of the ice, varying in breadth from 10 to 20 feet, apparently running across the strait; but, being provided with one of Halkett's valuable little boats, this obstacle, which would otherwise have caused a detour of many miles, was easily overcome. It is impossible to recommend these boats too highly upon a service of this description, where every article of weight is objectionable. Their whole fitting is but 25lbs. When not required they form a platform on the sledge to stow the baggage, and when in use they are carried inflated upon the top. Thus, on two occasions, they have been of essential service, without the smallest inconvenience. Lieutenant Cresswell erected a cairn, and deposited a cylinder within it, upon a low beach near Cape Lambton; he also remarked the vestiges of Esquimaux encampments upon almost every part of the coast upon which he pitched his tent for the night, many of them thickly strewn with the heads of musk oxen, which denotes no paucity of those animals upon these lands: indeed, at the present time both shores of the strait are covered with wild fowl of every description, musk oxen, deer, hares, ptarmigan, and golden plover. This is certainly the most fertile part of the Polar regions, and must be the breeding-place of those animals, which find rich pasturage among its alluvial plains and valleys, unmolested by the Esquimaux, the traces of whose remains, being overgrown with moss, and rotten, have reference to a time long anterior. This party, with much spirit and zeal, performed their return journey of upwards of 160 miles in nine days and a-half, under circumstances reflecting much credit upon them, the lateness of the season being unfavourable to so rapid an advance. All being now on board and in excellent health, with the exception of three of the travellers suffering from frost-nips, our season's travelling operations may be considered to have terminated fortunately; and, from the close examination which has been made over a vast extent of coast, the direct distance of which, by observation, embraces 800 miles, to which a third may be added for the devious windings of the coast-line, without observing the slightest vestiges of any spar, or other indication of civilized man having reached these shores, I am fully confident that the missing expedition under Sir John Franklin, has never penetrated towards the Polar Sea in this direction, as some portion of the immense mass of stores, spars, or fitments, with which those ships were provided must have been picked up, when driftwood of very inconsiderable dimensions did not escape observation. (A chart, showing the extent of discovery and course of each searching-party, accompanies this letter.)

I am also of opinion that Prince Albert's Land is part of the continent of America, and that Point Peel is its north-west extremity, and that the land thence is continuous to Cape Walker; the peculiar formation of its shores, from the very deep inlets which run into the interior, give the appearance of straits which in reality do not exist, as was apparently the case between Victoria and Wollaston Lands, and which is very probably the same between Cape Walker and North Somerset. My opinion is strengthened by the Esquimaux upon this coast speaking the same language as those of Hudson's Straits, which Mr. Miertsching, the interpreter, thoroughly understands, and conversed fluently with them, while with those of the Colville, and Cape Bathurst he found it sometimes difficult to do so. Consequently, I think it very probable that the forefathers of these have crossed from Hudson's Straits, and kept the coast line of Victoria and Wollaston Land, and have thus retained the purity of their language, which those upon the north coast of America have lost, by constant intercourse with the Indians. I certainly should have considered it my duty to endeavour to decide this point by detaching a boat through the Dolphin and Union Straits, but I feel assured that that service was accomplished by Dr. Rae last year, as he evidently was not in this direction.

During the absence of the searching parties the refitting of the ship was carried on, under the direction of Messrs. Sainsbury (mate) and Court (second master); so that upon their return little remained but to get the boats from the eastern shore, and the tents and appurtenances, which the shooting parties had upon each side of the strait, on board, the weather being unfavourable, and the state of the ice becoming too precarious to allow of any persons being so far distant from the ship. This being effected, as also the repairing and painting of a boat which is to be left with the provisions at the large Princess Royal Island completed upon the 13th, we had the satisfaction of having every one on board, with the vessel thoroughly refitted, caulked, painted, and watered, and in every respect as efficient for the service we have to perform as the day that we quitted Plymouth, with a trifling sick-list, principally from the effects of frost-nips and foot-soreness from the travelling. We now wait, with no little anxiety, the disruption of these mighty masses of ice by which we are encircled, and the consequences depending upon that event, which cannot be contemplated without deep apprehension.

The first indication of open water occurred to-day (July 7th), extending some distance along the shore of Prince Albert's Land, about a mile in width. The ice in every direction is so rapidly decaying, being much accelerated by sleet and rain, with a thermometer standing at 45°, that by the 14th that which for the last few days had been slightly in motion, with large spaces of water intervening, suddenly and noiselessly opened around the vessel, leaving her in a pond of 40 yards; but, seeing no possibility of getting without its limits, we were compelled to secure to the floe which had for 10 months befriended us, and, with the whole of the pack, gradually drifted to the southward, towards the Princess Royal Islands, which we passed on the eastern side within half a mile. Upon the 17th, at 10 a.m., being among loose ice, we cast off from the floe and made sail, with the hope of getting upon the western shore, where the water appeared to be making, but without shipping the rudder,

in consequence of being in the vicinity of several large floes, and at 2 p.m. again secured to a floe between the Princess Royal and Baring's Islands (we passed over a shoal having 19 fathoms). On the 20th, at 11.30 a.m., a light air sprang up from the S.W., which, slacking the ice, gave hopes of making progress to the N.E., in which direction I was anxious to get for the purpose of entering Barrow's Strait, that, according to circumstances, I might be enabled to carry out my original intentions of proceeding to the northward of Melville Island, as detailed in my letter to the Secretary of the Admiralty of July 20, 1850, or, should such not be practicable, return to England through the strait. The ship was cast off, and a mile gained, when the wind died away, and we were again beset. On the morning of the 22nd, open water appearing in the N.E., the rudder was shipped in expectation of a start, which was not, however, realised until the afternoon of the 23rd, when a light S.W. wind set the ice to the N.E., carrying us over a shoal upon which there was much ice grounded in 13 fathoms; the corner of the floe to which we were attached coming in contact with some of these masses, gave way, throwing pieces of 12 feet and 14 feet square completely out of the water. It grazed the hard bottom with a sound not unlike distant thunder, as it crashed, crumbled, and upheaved, throwing an enormous mound up in its centre, as if under the influence of volcanic agency, and then rent asunder, the part we were secured to remaining firmly grounded, while the other and lighter portion, being forced onwards with accelerated speed, came direct for our unprotected stern. To let go warps and anchors was but the work of a minute, and most fortunate were we in accomplishing it, as, ere they could be got on board, it struck the stern, forcing the ship ahead at the rate of 2 knots. A small space of open water, occasioned by the grounding of the floe, allowed of our advance; when, by warping and towing, we speedily got beyond its influence. Had our position been less favourable, nothing could have saved the vessel from momentary destruction, and at 11.30 p.m., with a breeze from the S.E., we made sail through large leads of water towards the eastern side of the strait, and by the afternoon of the 24th had nearly reached Point Armstrong, upon which the ice was resting, where our course was checked. There was much driftwood on the beach of large dimensions, mostly American pine. The cutter was consequently dispatched for a load, and some of the pieces appeared so fresh, that Mr. Ford, the carpenter, was of opinion that two years was the extreme of their quitting the forest. The wind veering to the westward during the night, set large bodies of ice into the water we occupied, which was rapidly filling. To prevent being forced on shore, we were obliged at 8 a.m. of the 25th to run into the pack, where we drifted, according to the tide, about a mile and a half from the beach; but during the 24 hours made about two miles and a half to the N.E., from which I am of opinion, when taken with the quantity of driftwood that is thickly strewn along the beach, that on this side of the strait there is a slight current to the north-east, while upon the opposite one it sets to the southward, upon which there is scarcely any wood, and our progress, while similarly situated, was in a southern direction. We continued drifting in the pack, without meeting any obstruction, until 10 a.m. of the 1st of August, when a sudden and most unexpected motion of the ice swept us with much velocity to the north-east, towards a low point off which were several shoals awash, having many heavy pieces of

grounded ice upon them, towards which we were directly setting, decreasing the soundings from 24 to $9\frac{1}{2}$ fathoms. Destruction was, apparently, not far distant, when, most opportunely, the ice ceased a little, and, a fresh wind coming from the land, sail was immediately made, which, assisted by warps, enabled the ship to be forced ahead about 200 yards, which shot us clear of ice and point into $16\frac{1}{2}$ fathoms, in which water we rounded the shoals; the ice then again closed, and the ship became fixed until the 14th, when the fog, which since the previous day had been very dense, cleared, and discovered open water about half-a-mile from the vessel, with the ice loose about her; at noon commenced warping, and at 3 p.m. passed into it with a light breeze from the north-east that carried us some distance along the eastern shore. At 11 p.m. the fog was so thick that we were compelled to make fast to a floe, having, while standing in shore, stirred up the mud while in stays, shooting from no soundings at 25 fathoms to a quarter less 3, which convinced me of the impracticability of remaining under way, as, had we been set on the beach, the ice, which came in before a freshening north-easter out of Barrow's Strait, would most effectually have detained us there. Previously to quitting the floe I was desirous of trying what effect blasting would have upon such a mass. A jar, containing 36 lbs. of powder, was let down 12 feet into the water near the centre; the average thickness was 11 feet, and its diameter 400 yards. The result was most satisfactory, rending it in every direction, so that with the greatest ease we could effect a passage through any part of it. August 15, at 8 a.m., the fog cleared a little, which showed the base of the cliffs very close, although we were in 42 fathoms. Having water to the westward, we instantly made sail in that quarter, and at 11 a.m., being unable to see in any direction, again made fast, having carried away the spankerboom in breaking through a neck of ice, which forced the vessel from the wind, causing it to jibe. Our soundings increased to 62 fathoms, and the ice was ascertained to be setting bodily a mile and a half an hour to the west-south-west, so that, upon the weather clearing, at 30 minutes a.m. of the 16th we found the vessel had been drifted 15 miles to the south-west. As there was, however, water to the eastward, every exertion was made to reach it by warping, and at 3 a.m. succeeded, working along the eastern shore to ascertain what probability existed of being able to round the pack, and thus get into Barrow's Strait, from which we were not distant more than 25 miles. At 9 a.m. all hopes disappeared, as a clear view from the crow's-nest discovered the ice to be closely packed, resting upon Point Lady Rose, extending in one unbroken line to the opposite side of the strait. This determined me to give up all idea of prosecuting our search in this direction. Having been foiled in attempting this passage the latter end of one season and at the commencement of another, I considered it not practicable, except under the favourable circumstance of a continuance of south-westerly winds, which would drive the ice into Barrow's Strait; but I imagine there would be little difficulty in coming from the north-east, from which quarter we found the winds prevail. Our greatest advance in that direction was lat. $73^{\circ} 13' 43''$ N., long. $115^{\circ} 32' 30''$ W. Accordingly, at 9.30 a.m. we bore up with the intention of running to the southward of Nelson's Head, and continuing our search along the western side of Baring's Island, with the hope of reaching the entrance of Barrow's Strait by that route; as, from the report of Lieutenant Cresswell, I felt convinced that

by Banks's Land there was a passage from the Polar Sea. At 4 p.m. passed the Princess Royal Islands with a fine breeze; not a particle of ice to be seen in any direction, which only a month previously had presented enormous floes, and heavy grounded masses lying against their base and upon the shoal connecting them, which we considered had been there for years, and likely to remain for many more; even the huge pieces which had been thrown upon the eastern shore had vanished; so that every vestige of that formidable element had passed away which for nearly 11 months had held us in its trammels.

Upon the 17th, while near Nelson's Head, with a fine breeze from the south-east, we experienced a heavy swell from that direction, causing the vessel to pitch the hawse-holes under and send the sea as far aft as the fore-hatchway. A circumstance so unusual was hailed as a favourable omen, being a convincing proof that we were in much open water; and at 11.30 p.m. we rounded the head. The land for about 25 miles to the westward is remarkably bold and lofty, where Cape Lambton, jetting out and rising perpendicularly 1,000 feet, presents a grand termination to it in that direction; whence it gradually recedes to the north-west, where it loses this bold character, partaking more of that remarked in the Prince of Wales's Strait, being ranges of hills, gradually sloping from the interior to the shore, having fine valleys and extensive plains, several small, and one considerable river, the water from the latter discolouring the sea two miles from its mouth; likewise many small lakes and harbours, which, however, would be only of utility for boats, as a heavy surf was breaking across their entrances. Much driftwood strewed the beach, and the land was well covered with verdure, upon which were large flocks of geese feeding, while ducks were flying in great numbers, and I have little doubt that a walk a short distance inland would have discovered herds of deer and musk oxen. Nothing that was on the coast could escape observation, nor could anything be more favourable for the object we had in view, as, with a fair wind and fine clear weather, we ran along it from one to two miles distant.

At 4 p.m. of the 18th, being off a very low spit of sand (Point Kellett), which extended to the westward for about twelve miles in the form of a horseshoe, having its seaside thickly studded with grounded ice, while the interior was exempt from any, I sent Mr. Court (second master) to examine it, who reported an excellent and commodious harbour, well sheltered from N.W. to south, carrying five fathoms within 10 yards of the beach, which was shingle, and covered with driftwood. A set of sights was obtained, and a cask containing a notice was left there; its position lat. $71^{\circ} 56'$ N., long. $125^{\circ} 29'$ W. From this the land turns abruptly N. by E., and a great change takes place in its general aspect, generally becoming low and flat, so that near the beach it is scarcely discernible, resembling separate sand-banks, but, upon closing it, a low spit, barely above the level of the water was remarked connecting them. The lead may be considered as an infallible guide along the whole of this coast, as the soundings are regular from 3 to 30 fathoms, at from one to four miles off shore.

Upon the morning of the 19th we left this low coast, and passed between two small islands lying at the entrance of what appeared a deep inlet, running E.S.E., and then turning sharp to the N.E. It had a barrier of ice extending across, which prevented any examination. Wishing to keep between the northernmost of

these islands and the mainland, to avoid the pack, which was very near it, we narrowly escaped getting on shore, as a reef extended from the latter to within half a mile of the island. Fortunately, the wind being light, we rounded to with all the studding sails set, and let go the anchor in two and a half fathoms, having about four inches to spare under the keel, and warped into four; while Mr. Court was sent to find a channel, in which he succeeded, carrying three fathoms, through which we ran for one mile, and then continued our course in eight, having from three to five miles between the ice and land. At 8 p.m. we neared two other islands, the ice resting upon the westernmost, upon which the pressure must have been excessive, as large masses were forced nearly over its summit, which was upwards of 40 feet. Between these and the main we ran through a channel in from nine to fifteen fathoms, when an immediate and marked change took place in the general appearance and formation of the land; it became high, precipitous, sterile, and rugged, intersected with deep ravines and watercourses, having 65 fathoms at a quarter of a mile, and 15 fathoms 100 yards from the cliffs, which proved exceedingly fortunate, as the whole pack, which had apparently only just broken from the shore, was within half a mile, and in many places so close to it that, to avoid getting beset, we had nearly to touch the land. Indeed, upon several occasions, the boats were compelled to be topped up, and poles used to keep the vessel off the grounded ice, which extends all along this coast; nor could we round to, fearful of carrying the jibboom away against its cliffs, which here run nearly east and west. The cape forming its western extreme, I have called Prince Alfred, in honour of his Royal Highness. There were two apparently good harbours about 20 miles to the eastward of the cape; the westernmost had a breakwater half-a-mile in length, twenty feet high, facing the north, with entrances on its east and west sides about sixty yards in breadth; the other was circular, about three-quarters of a mile in diameter, with its entrance on the west side. Our critical position would not admit of any detention, otherwise they would have been sounded, being very anxious to find a secure retreat in the event of having to winter on this coast. The weather had been fine, with a S.E. wind, which veered to the W.S.W., bringing fog and rain; so that on the morning of the 20th our further progress was impeded by finding the ice resting upon a point, which formed a slight indentation of the shore, and was the only place where water could be seen. To prevent being carried away with the pack, which was filling up its space, we secured to the inshore side of a small but heavy piece of ice, grounded in twelve fathoms, 74 yards from the beach—the only protection against the tremendous Polar ice (setting a knot per hour to the eastward before a fresh westerly wind), which at 9 p.m. placed us in a very critical position, by a large floe striking the piece we were fast to, and causing it to oscillate so considerably, that a tongue, which happened to be under our bottom, lifted the vessel six feet; but, by great attention to the anchors and warps, we succeeded in holding on during the conflict, which was continued several minutes, terminating by the floe being rent in pieces and our being driven nearer the beach. From this until the 29th we lay perfectly secure, but at 8 a.m. of that day the ice began suddenly to move, when a large floe which must have caught the piece to which we were attached under

one of its overhanging ledges, raised it perpendicular 30 feet, presenting to all on board a most frightful aspect. As it ascended above the foreyard, much apprehension was felt that it might be thrown completely over, when the ship must have been crushed beneath it. This suspense was but for a few minutes, as the floe rent, carrying away with it a large piece from the foundation of our asylum, when it gave several fearful rolls and resumed its former position; but, no longer capable of resisting the pressure, it was hurried onward with the drifting mass. Our proximity to the shore compelled, as our only hopes of safety, the absolute necessity of holding to it; we consequently secured with a chain stream and hemp cable three six and two five-inch hawsers, three of which were passed round it. In this state we were forced along, sinking large pieces beneath the bottom, and sustaining a heavy strain against the stern and rudder; the latter was much damaged, but to unship it at present was impossible. At 1 p.m. the pressure eased, from the ice becoming stationary, when it was unhung and laid upon a large floe piece, where, by 8 p.m., owing to the activity of Mr. Ford, the carpenter, who is always ready to meet any emergency, it was repaired, just as the ice began again to be in motion; but as the tackles were hooked, it was run up to the davits without further damage. We were now setting fast upon another large piece of a broken floe, grounded in nine fathoms upon the *débris* formed at the mouth of a large river. Feeling confident that should we be caught between this and what we were fast to, the ship must inevitably go to pieces, and yet being aware that to cast off would certainly send us on the beach, from which we were never distant 80 yards, upon which the smaller ice was hurled as it came in contact with these grounded masses, I sent John Kerr (gunner's mate), under very difficult circumstances, to endeavour to reach it and effect its destruction by blasting. He could not, however, find a sufficient space of water to sink the charge, but remarking a large cavity upon the sea face of the floe, he fixed it there, which so far succeeded that it slightly fractured it in three places, which at the moment was scarcely observable from the heavy pressure it was sustaining. By this time the vessel was within a few feet of it, and everyone was on deck in anxious suspense, awaiting what was apparently the crisis of our fate. Most fortunately, the sternpost took it so fairly that the pressure was fore and aft, bringing the whole strength of the ship to bear; a heavy grind which shook every mast, and caused beams and decks to complain as she trembled to the violence of the shock, plainly indicated that the struggle would be but of short duration. At this moment the stream cable was carried away, and several anchors drew. Thinking that we had now sufficiently risked the vessel, orders were given to let go all the warps, and with this order I had made up my mind that in a few minutes she would be on the beach; but, as it was sloping, conceived she might still prove an asylum for the winter, and possibly be again got afloat, while, should she be crushed between these large grounded pieces, she must inevitably go down in ten fathoms, which would be certain destruction to all; but before the orders could be obeyed, a merciful Providence interposed, causing the ice, which had been previously weakened, to separate into three pieces, and it floated onward with the mass, our stern still tightly jammed against, but now protected by it. The vessel, which had been thrown over 15 degrees, and risen 1 foot 8 inches, now righted and

settled in the water; the only damage sustained was several sheets of copper ripped off and rolled up like a sheet of paper, but not a fastening had given way, nor does any leakage indicate the slightest defect. By midnight the ice was stationary and everything quiet, which continued until the 10th of September; indeed, from the temperature having fallen to 16 degrees, with all the appearance of the setting in of the winter, I considered our further progress stopped until next year. The crew were employed collecting ballast (of which they obtained 55 tons), and other arrangements making for such an event. Shooting and other parties made daily excursions inland; in which rambles an exceedingly old Esquimaux encampment was met with, and a most interesting discovery of a range of hills, composed of one entire mass of wood in every stage, from a petrification to a log fit for firewood. Many large trees were among it, but, in endeavouring to exhume them, they were found to be too much decayed to stand removal; the largest piece that we have been able to bring away being 3 feet 10 inches in girth, and seven in length. These were found by Messrs. Sainsbury and Piers, at an elevation of 300 feet above the beach (in lat 74° 27' N., long. 122° 32' 15" W.), which is strewn with chips and small bits of wood, as are the watercourses and ravines as far as any person has walked inland, evidently washed down by the thaw from these ligneous hills. The country has fine valleys, well covered with verdure, and at some period of the year must be frequented by large herds of animals, as the heads of musk oxen and the well-picked carcasses of deer are everywhere met with, many quite fresh. Two large wolves were disturbed in the act of finishing a fawn which they had just killed, but only two musk oxen were seen, besides a few hares and ptarmigan shot by our parties. Today the temperature, from a change of wind to the southward, rose to 39 degrees, accompanied by rain, which had the effect of so loosening the ice that the main pack separated from the shore, about half a-mile from the ship, opening a lane of water about 16 miles to the eastward, varying in breadth from 50 to 200 yards, which, however, did not promise any release to the vessel, until 11.50 p.m. (while the officer of the watch and quarter-master were examining the tide pole fixed on the beach, through a hole cut in the ice, about 40 yards from the shore, it puzzled them both to find that they could not keep the gauge erect, as it slipped from their hands while endeavouring to do so) when it noiselessly opened, and we drifted towards the pack, which it was impossible to avoid, and were carried to the N.E. a knot per hour, at the distance of half-a-mile from the shore, in soundings from 107 to 134 fathoms; all methods by warps and saws to extricate the vessel from her perilous position proving abortive, having masses of ice firmly frozen to her bottom. Recourse was had to gunpowder, which fortunately effected her release by the expenditure of 150 lbs. in charges of from 3 lbs. to 26 lbs., according to the distance from the vessel, which by any other means could not have been achieved. This saved us from being set against the thick grounded ice which was resting upon Point Colquhoun—certain destruction—into which we should have been hurried by five minutes' longer detention, having barely time to make sail and shoot the vessel, without rudder, clear of the piece we had been so long frozen to into the water, cutting the hawsers, which canted us, just as it entered the solid mass, upon the weather edge of which we twice grazed as we worked into the land; when, at 7 p.m. of the 11th, we

again secured to a large grounded floe, 70 yards from it, in 10 fathoms. At 10 p.m. our position was hazarded by a portion of the main pack, which had extended itself over the open water, coming in violent collision with the corner of our floe, turning it partially round, while the smaller ice pressed with so much strain upon the ship that the anchors began to draw and hawsers carry away; the stream chain luckily held until the pressure ceased by the pack giving way, and our being pushed a few fathoms nearer the shore. At 2:50 a.m. of the 13th a lane of water opened about 60 yards from the vessel, and towards noon a rise in the temperature to 43 degrees, with heavy rain, created hopes of liberation, an object of the utmost importance, not only with respect to the views with which the expedition was fitted out, but for the safety of the ship, at present in a most exposed position, being upon the eastern side of a large bay, open to the whole pressure of the Polar pack, and surrounded with masses of ice 16 and 18 feet thick, while the grounded floes were from 40 to 67 feet in depth. To remove these impediments, or, at all events, endeavour the formation of a dock, blasting was had recourse to, with charges of from 16 lbs. to 65 lbs. These made little impression, except near the explosion; therefore a 26-gallon rum cask, containing 255 lbs., was now sunk five fathoms, among these large masses, at 30 yards from the vessel; its effect was most conclusive, shivering them to atoms, rending that to which we were attached, and which was 67 feet thick on the outer and 35 feet on its inshore edge, asunder, without the concussion being very much felt on board. All hands were employed in floating the loose ice into the water, having vainly attempted to force the ship through, aided by a strong wind, and a nine-inch hawser brought to that patent capstan (such resistance from merely this sludge is incredible), which work was continued until the afternoon of the 14th, when all was drifted away, leaving a snug harbour 40 yards in width, flanked by heavy grounded floes, forming an excellent protection. The rudder was now hung, in anticipation of a start on the following morning; but at 11 p.m. the wind freshened from the W.N.W., bringing the whole pack down upon this coast, filling our little harbour with loose and small ice, its entrance being too narrow to admit the large pieces; an enormous floe, however, carried away one of our flanks, but without disturbing the vessel in the slightest. At daylight on the morning of the 15th, these expectations were sadly blighted, it blowing hard from W.N.W., with sleet and snow; nor was a drop of water to be observed in any direction, and the ice apparently as firmly fixed as in the depth of winter. The rudder was again unhung, which, with the thermometer at 14 degrees, scarcely afforded any probability of its being reshipped this season. In the course of the forenoon Messrs. Court (second mate) and Newton (ice-mate) were sent to examine the coast and the state of the ice to the eastward of Point Colquhoun, distant about four miles. Their report was such as to confirm the opinion previously entertained, with this consolation, that the position we which occupied was better than any they had seen, as the ice to the eastward was much larger and more massive than that we were encompassed by. The soil on this coast is composed of gravel and limestone, and in the valleys near the beach the quantity and richness of the moss is quite surprising; but, on reaching the first range of hills, about a mile distant, a more sterile landscape never met the eye. The whole country appears

nothing but one mass of limestone, without the slightest vegetation; the traces of animals, so numerous 15 miles further west, are nowhere in this barren ground to be met with.

On the 17th the westerly winds ceased, and were succeeded by one from the eastward, with a rise of temperature from 11 to 21 degrees, which, by daylight of the 19th, had increased to 32, with water extending along the coast three miles in width. We immediately cast off, and at 7 a.m. rounded the point, whence the land falls back E.S.E. Our progress was slow from many causes,—the copper being torn and projecting from 4 to 12 inches from the bottom, light winds, and an ice-encumbered sea, so that at 3 p.m. our further advance was arrested by the pack touching the land and extending with unbroken line to the northward as far as the eye could reach. Our day's work did not exceed 15 miles, when we were compelled to make fast to the land ice, which along the whole of this coast is of the most massive and terrific dimensions I have ever witnessed. There was a little selection of berth on a coast-line nearly straight; but a slight indentation, protected east and west by two large pieces of a broken floe 30 feet above the water, gave hopes of some shelter; when, at 6 p.m., the water and loose ice, which was before perfectly still, suddenly rushed forward at the rate of two knots an hour, and, striking against the vessel, forced her from her anchors with such violence that she was driven astern upon a hard point of the floe, which raised her 12 inches; but, fortunately, she held until the rush was over, which swept away our eastern bulwark, but did no other damage. We then warped to the western side of the floe, where a small space was blasted for the bow, in which we quietly remained during the night.

At daylight of the 20th, finding the ice loose and drifting, though a perfect calm, a mile and a half an hour to the eastward, we cast off, and, laying hold of a large floe-piece, were dragged along close by the grounded ice, which with some difficulty was avoided by shifting round the floe as it canted towards us. At noon, having a light air from the westward, made sail, but soon had reason to regret it, as it shortly failed, and, the ice filling the land water, it gradually forced the vessel into the pack, which hitherto we had been so anxious and careful to avoid. As the only hope of navigating this sea consists in keeping close to the shore, it now became evident that every exertion must be made by warping to regain the land; which, under the circumstances of the ice being in motion, with much that was small and loose filling up the intervals between the larger pieces, which allowed a secure footing for the men, was difficult, laborious, and anxious in the extreme, as with every precaution they frequently fell in. After seven hours' incessant work, we succeeded, as the night closed, in reaching a huge and solid floe that had just been upturned, three of its sides being 25 feet perpendicular, grounded in 29 fathoms on the outer edge, and having $10\frac{1}{2}$ upon the inner one, around which was scattered much *débris*, part of its original self that had crumbled from the pressure against a cliff, up which it had been forced full 70 feet, and where a large mass was still remaining about a mile to the westward of a cape (Austen), 400 feet in height, which is stratified, and of the same description as Nelson's Head, where we secured for the night.

At daylight of the 21st, a thick fog, with hail, permitted a very circumscribed view; but as the ice appeared loose in the direction of the cape, at 5 a.m. we started, and, grazing round it within 15 yards, found ourselves

in a large bay entirely covered with ice, formed by another cape three miles S.E., compelling us, at 6.30 a.m., to make fast immediately beneath the cliff, the summit of which nearly plumbing the hatchways, rendered our position very unsafe, many fragments appearing so loose from the action of frost and water that a slight concussion would have brought them down. At 11 a.m. the ice eased a little from the land, when we again endeavoured to force towards the S.E., aided by a westerly wind and warping; but in the afternoon the fog became so dense, with an easterly breeze, that we made fast to the land floe; in which a small dock was formed with the assistance of the little powder, about a mile from our forenoon's position, remaining until the morning of the 22nd, when a little progress was made towards the S.E., our operations by warping being brought to a termination. At 1 p.m. having reached the cape (Crozier), upon the south-eastern side of which the ice was resting, and having secured to a ridge 20 feet in height lying at its base, I proceeded with Mr. Court to its summit for the purpose of examining the coast line towards the S.E. A deep bay, extending 30 miles in that direction, filled with ice, which was commencing to move bodily to the westward, and of a much less formidable character than that we had been subjected to, while what was lying along the shore was small and widely detached, well repaid the toil of ascent. Indeed, since rounding Cape Austen, it has lost much of its terrible aspect, which led to the inference that we were fairly in Barrow's Strait, and that the main Polar pack takes a direct line from the last-mentioned cape to the E.N.E., and that which fills these bays and is carried down Barrow's Strait is the comparatively small ice which drifts from its southern edge, as we have invariably remarked that there is a decidedly easterly current, which impels the enormous Polar floes on that course while the lighter, influenced by wind, is oftentimes setting in an opposite direction. This cape (Crozier) is 250 feet perpendicular, presenting among its *débris* many interesting geological specimens; it is composed of lime and sandstone, having fossiliferous shells imbedded, also pieces of coal and petrefactions of wood, identical with what has been met with upon other parts of this large island and upon the Princess Royal Isles.

At 3.30 a.m. of the 23rd, although not daylight, open water was ascertained to be at hand, from the dark appearance of the horizon to seaward. The vessel was cast off, and, standing in that direction, we found we had not been deceived; the wind during the forenoon coming from the westward, enabled us to run close along the shore, on which still rested a line of thin ice, rendering the entrance of what appeared three good harbours inaccessible. The land was much less rugged, having small hills gradually sloping to the beach, and large valleys well calculated for the pasture lands of animals; but no particle of driftwood could be observed,—which article has not been seen, excepting the small chips near the ligneous hills, since rounding Point Kellett, on the western shore. At 5.30 p.m. our course was nearly obstructed, from the ice resting upon a point about two miles distant; the studding sails were taken in, but almost immediately reset, as it gradually opened, allowing sufficient space for our passage by topping up the lower booms. The shore shortly trending more to the southward increased our water, but snow and thick weather, with night coming on, rendered the land not 200 yards distant barely discernible; most anxious, however, at the

close of the season to embrace every opportunity of getting to some place of security, our course was continued with easy canvass, when, under other circumstances, we should have most assuredly secured for the night, and at 7.30 p.m., with the lead going, went from 15 fathoms upon a mud bank, having only six feet under the bow, and at the distance of 10 feet from the stern only 18 inches, while the stern was in five fathoms. The stream anchor and cable were laid out,—which service was well performed by Messrs. Wynniatt, Sainsbury, and Court, it requiring four boats in consequence of the freshening N.W. gale and pieces of loose ice with snow, which, caking as it reached the water, formed so thick a coating over its surface, and offered such resistance, that it was scarcely possible to pull through. However, with clearing the forehold and warrant-officers' store-rooms, and bringing all the weight abaft the mizen-mast, at 10 p.m. we were enabled to heave off, and brought up with both bowers in six fathoms and a half. The remainder of the night was occupied in restowing the holds, weighing the stream-anchor, &c., so that at daylight of the 24th we were in perfect readiness to move. On a view of our position, we found that we were on the N.W. side of a large bay, the eastern limit of which bore N.E. eight miles (which we subsequently found formed the western point of Banks's Land), and running to the S.S.W. about seven, which was rapidly filling up with ice flowing in before a fresh gale from the Polar Sea. Still wishing to see if any possibility remained of getting down Barrow's Strait, we weighed, and stood as far as the ice would allow to the N.E., when, observing from the crow's-nest no water in that direction, I determined to make this our winter quarters, and, having remarked upon the south side of the bank on which we had grounded a well protected bay, Mr. Court was despatched to sound it; and, shortly making the signal that there was sufficient water, we bore up, and at 7.45 a.m. we anchored in four and a half fathoms, and that night were firmly frozen in, in what has since proved a most safe and excellent harbour, which, in grateful remembrance of the many perils that we had escaped during the passage of that terrible Polar Sea, we have named the "Bay of Mercy," thus finally terminating this short season's operations, having been actually only five entire days under way. Preparations were now made for housing in, and everything was completed by October 1, except hauling over the cloth, which was not done that the daylight should be enjoyed as long as possible, and a saving in lights effected. On that day, as a precautionary measure, the crew were placed upon two-thirds allowance of all species of provisions. Upon the 4th, Mr. Court was sent with a travelling party to connect our position with that visited by Lieutenant Cresswell in May last, from which we were only distant 18 miles. On the 7th he returned, which service completed the search around the entire coast line of this island; he reported open water a few miles from the shore, which, gradually extending, reached the cliffs of Banks's Land. Upon the 6th, as, with two men, he was examining a few miles to the south-eastward of his tent, the current detached the heavy grounded land ice from its base, drifting the whole party off shore to the N.W.; fortunately, being unencumbered with the sledge, they succeeded with difficulty and by much agility, jumping from piece to piece, in regaining the shore, and that evening no ice could be remarked in the Strait, the whole being set into the Polar Sea.

On the 10th, Mr. Sainsbury (mate), with a travelling party, went to examine an inlet, which appeared to run some distance to the S.W. from the south side of the bay; but upon the following day returned, finding it extended only 12 miles, the water shoaling, until it finally terminated in a large marsh, which, from the numerous traces of animals and wild fowl, may be considered as a favourite resort during the summer. As there appeared much game in the vicinity, and the weather continued mild, shooting parties under Lieutenant Cresswell, Messrs. Wynniatt, Court and Piers, and the Marines, under Sergeant Woon, were established in different directions between the 9th and 23rd; so that, with what was killed from the ship, our supply of fresh provisions at the commencement of the winter consisted of nine deer, 53 hares, and 44 ptarmigan, all in fine condition, the former having from two to three inches of fat.

The weather during the winter has been much more boisterous, but in each month several degrees more mild than was experienced in the Prince of Wales' Strait, nearly a degree and a half further south, last year, which, in conjunction with the animals remaining in numbers in this locality the entire winter, must, I suppose, be taken as a proof of its mildness, although lying exposed to the north-west winds, direct from the Polar Sea, which, upon our first being frozen in, led to the anticipation of having to encounter a very severe season. In consequence of our favoured position the crew were enabled to ramble over the hills almost daily in quest of game, and their exertions happily supplied a fresh meal of venison three times a fortnight, with the exception of about three weeks in January, when it was too dark for shooting. The small game, such as ptarmigan and hares, being scarce, were allowed to be retained by the sportsmen as private property. This healthy and exhilarating exercise kept us all well and in excellent spirits during another tedious winter, so that on the 1st of April we had upwards of 1,000lbs. of venison hanging at the yard-arms. All wearing so fair an aspect, and being desirous of visiting Winter Harbour, Melville Island, with the hope of meeting an officer there with whom arrangements might be made in the event of any accident occurring which would render it necessary to quit the ship, I proceeded on the 11th with Mr. Court (second master) and a sledge party for that port; but in consequence of thick weather coming on a few hours after leaving the vessel, and continuing unintermittingly for several days, we did not reach until the 28th. Upon the 16th we observed a very lofty cape, bearing N.E. by E. 30 miles, which I have called Queen Victoria, in honour of her Most Gracious Majesty (the same which had been remarked last autumn from the high land near the ship). The land of the north-east forms the bottom of Lyddon Gulf, while that upon its western side stretched to the N.W., in one unbroken mountain line as far as the eye could reach. At Winter Harbour we obtained a set of sights for the purpose of testing our chronometers, which were ascertained to be going exceedingly well; and, having deposited a notice of our visit under the same cairn where Lieutenant M'Clintock left one last year, upon a large fragment of sandstone, bearing this inscription, viz: "His Britannic Majesty's ships *Hecla* and *Griper*, Commanders Parry and Lyddon, wintered in the adjacent harbour during the winter of 1819-20.—A. Fisher, sculpsit," at 6 p.m. commenced our return,

travelling upon flat ice nearly the entire way; accomplishing in ten days what occupied eighteen upon the outward trip, and reached the ship upon the 9th of May, when I had the gratification of receiving the most satisfactory reports concerning our sanitary condition, and likewise that the supply of venison continued abundant, having twenty head of deer on board. In consequence, the ration of venison was increased to $1\frac{1}{2}$ lb. thrice a week, as the crew were hard at work, clearing the holds, collecting and bringing off ballast—the latter a very laborious occupation, from the large space they had to search over in picking up a sufficiency of stone to complete 100 tons, which was not accomplished until the 25th; after which we commenced watering, obtaining it from a lake about a mile from the ship, by boring through 7 feet 10 inches of ice, and cutting a reservoir to receive it, this forming a species of artesian well, which gave a bountiful supply, enabling the water to be completed by the 12th of June, previous to the commencement of the thaw, which was a great advantage to the crew, as it kept them dry-footed. About this time flocks of wild fowl, consisting of swans, geese, and all descriptions of ducks, began to arrive, but, finding no water, merely took a flight round the north-west extreme of the land and returned to the southward; from which it would appear that the season is late. Indeed, the land is as much covered with snow, as in the depth of winter; nor was it until the 25th of the month that any alteration took place, when small streams commenced trickling down the sunny slopes of the ravines, and little ponds formed upon the ice.

On the 30th we had an entire day of heavy snow, with one of the most severe northerly gales I ever witnessed at so advanced a period of the season; and upon the 1st of July found that the ice had increased its thickness four inches during the last month, being seven feet two inches; a most unusual circumstance, as both at Port Leopold and in the Prince of Wales' Strait we found a very considerable decrease. During the month of June the temperature likewise was very low, showing an average of $31\frac{1}{2}^{\circ}$. The appearance of the crew, at their monthly inspection, elicited a more unfavourable report from the surgeon than I have hitherto received; evident symptoms of debility among the generality of them, and sixteen having a decided scorbutic tendency, plainly the effect of the late heavy labour in ballasting and watering; but as all our work is now on board, their gradual return to perfect health may be anticipated, without encumbering the sick list.

On the 8th of July, Sergeant Woon, of the Marines, while in pursuit of a wounded deer, unexpectedly met a couple of musk bulls, which he succeeded in killing, evincing the most soldier-like coolness and intrepidity during the entire transaction. Having expended his ammunition as one of the wounded and infuriated monsters rushed towards him, he fired his "worm" when at a few yards, but without much effect. The animal continued his advance, evidently, however, weak from loss of blood, till he had reached within six feet, when, putting his head to the ground previous to his final rush, the sergeant, as his last resource, fired his iron ramrod, which entering behind the left shoulder, passed through the heart and out at the right flank, dropping him dead at his feet. They are fine animals, whose gross weight is 1,330 lbs., and yield, after deducting offal and hunters' perquisites, 650 lbs. of excellent beef; which providential supply was

most opportune, as our reindeer were expended last week. Two Esquimaux huts upon a small islet in the centre of the bay, and the site of an encampment on a peaked hill on the western shore of the mainland, are the only indications we have met with of that extraordinary and hardy people having at some period long past inhabited this coast. We have now discovered traces of them upon all sides of this island; but where are they gone? for certainly there is not one upon it at present, or why should they have quitted an island so abounding throughout the entire year with game, except, as the Esquimaux interpreter observes, there may be a great paucity of seals, without which luscious food they cannot exist; and this may be the reason, as we have seen very few.

During the month of July the little thaw, which a temperature falling to 31° every night and rising only to 39° and 42° in the day could effect, has not been much; but the water draining from the land, rotted the ice round the entire bay, and detached it from 100 to 300 yards from the shore, so that it has power to move, and only requires open water in the offing to allow of its going out, which joyful event we entertained hopes of realizing, as upon the 10th of August some lanes of water were observed to seaward, and along the cliffs of Banks's Land there was a clear space of six miles in width, extending along them as far as the eye could reach from the north-west hills, at an elevation of 1,000 feet; and on the 12th the wind, which had been for some time from the northward, veered to the south, which had the effect of separating the sea ice from that of the bay entirely across the entrance; but, shortly shifting to the north, it closed again, and never after moved. On the 20th the temperature fell to 27° , when the entire bay was completely frozen over, and on the 27th to 19° , so that the whole aspect was cheerless in the extreme, the young ice being two-and-a-half inches thick, so that the whole bay might be safely perambulated; indeed, the summer was fairly gone, for the uplands were all snow-covered, the wild fowl all departed, and the flowers, which gave cheerful variety to this bleak land, were all withered. The very season might be considered as one long sunless day, as since the latter part of May that luminary had been scarcely visible, or his influence felt, upon those icy masses which block Barrow's Strait entirely across; nor do I imagine that the Polar Sea had broken up that season, as not a drop of water had been seen in that direction. During July, and the early part of August, the crew were daily employed gathering sorrel, of which there was a great quantity upon the hills in this vicinity, and, eaten as a salad, with vinegar, or boiled, when it resembled spinach, it was found a most admirable anti-scorbutic, and a great benefit to all, being exceedingly relished; but that hardy and miserable herbage could not withstand this rigorous summer beyond the 15th of the month. For several days the ice had been perfectly stationary and no water visible in any direction, that along the cliffs of Banks's Land being frozen, so that I felt assured that the winter had fairly set in, and all hopes of any release this year were totally annihilated, the young ice being five inches thick. Having previously determined what course I should adopt under circumstances thus unfavourable, upon the 8th of September I announced my intentions to the crew of sending half of them to England next April, with all the officers not in charge of

stores, *vid* Baffin's Bay (taking the boat from Cape Spencer) and the Mackenzie, detaining the remainder with the hope of extricating the vessel during the summer of 1853, or, failing that, to proceed with sledges in 1854, by Port Leopold, our provisions admitting of no other arrangement. Although we had already been twelve months upon two-thirds allowance, it was necessary to make preparations for meeting eighteen months more—a very severe deprivation and constitutional test—but one which the services we were employed upon called for, the vessel being as sound as the day she entered the ice. It would therefore be discreditable to desert her in 1853, when a favourable season would run her through the Straits, and admit of reaching England in safety, where the successful achievement of the long-sought for and almost hopeless discovery of the north-west passage would be received with a satisfaction that would amply compensate for the sacrifices made, and hardships endured, in its most trying and tedious accomplishment. This statement was well received, and its execution will, I hope, be carried out without difficulty.

On the 17th the wind shifted to the S.S.E., and blew hard, which a few days earlier might have been attended with favourable results, but now it had no effect; the ice, being eight inches thick, was too firm to be moved; the sails were consequently unbent, and preparations commenced for housing in.

September 24th.—This is the anniversary of our arrival. The contrast is very remarkable. We entered the bay with the temperature at 33°, and not a particle of ice in it; to-day the thermometer stands at 2°, with ice which has never moved, and every indication of a very severe winter.

Upon the 25th of October closed the hatchways and housed the vessel over; it becoming damp and cold between decks, the vapour-funnels, of which there are five, giving a sufficient ventilation, those over the hatchways being never closed, carry off all impurities, so that we enjoy a clear, wholesome, atmosphere below. This has very much contributed to the excellent preservation of our healths, and the 26th being the second anniversary of our discovery of the passage, and the last that we should all be together, the occasion was celebrated by a small additional allowance of provisions, and an extra glass of grog, which had the effect of putting all in high spirits, so that the evening was passed most jovially in singing and dancing.

On November 8th, completed the banking up and other outside work; finally terminating our winter arrangements upon the 18th, by covering the upper deck with 18 inches of snow. The deer for the last few days have been coming from the southward to their winter-quarters among these ravines and sand-hills; 90 have been met with at one time, and 40 at another, but so very wild that few have been shot. Our two seasons' experience show that these animals do not migrate to the south, as is generally supposed, but bear the extreme rigour of the climate, and exist upon the scanty herbage, chiefly the dwarf willow, from off which they break the snow with their feet, which tapping can be heard at a considerable distance when the weather is calm, and frequently leads to their discovery. The hares and ptarmigan have also descended from the high ground to the sea-ridges, so that a supply of game has been kept up during the winter, which has enabled

a fresh meal to be issued twice weekly, and the usual Christmas festivities to pass off with the greatest cheerfulness. As it was to be our last, the crew were determined to make it memorable, and their exertions were completely successful. Each mess was gaily illuminated, and decorated with original paintings by our lower-deck artists, exhibiting the ship in her perilous positions during the transit of the Polar Sea, and divers other subjects; but the grand features of the day were the enormous plum-puddings, some weighing 26lbs., haunches of venison, hares roasted, and soup made of the same, with ptarmigan and sea-pies. Such dainties in such profusion I should imagine never before graced a ship's lower deck; any stranger to have witnessed this scene could but faintly imagine that he saw a crew which had passed upwards of two years in these dreary regions, and three entirely upon their own resources, enjoying such excellent health. So joyful, so happy, indeed such a mirthful assemblage, under any circumstances, would be most gratifying to any officer; but in this lonely situation I could not but feel deeply impressed, as I contemplated the gay and plenteous sight, with the many and great mercies which a kind and beneficent Providence had extended towards us, to whom alone is due the heartfelt praises and thanksgivings of all for the great blessings we have hitherto experienced in positions the most desolate which can be conceived.

March 1.—The most dreary and dark time is now passed, and severe and trying it has been. The cold of the last two months was excessive, January showing a mean of 44°, being 17° below the corresponding period last year; and one day the temperature fell to —65°, and for 24 hours actually averaged —62°. I should have doubted the correctness of the thermometer (as no former experience shows so low a register), had it not been well tested the two preceding winters, when it only fell to —52°; but, independent of the glass, the feelings gave unmistakeable evidence of the extreme keenness of the weather, as, for one entire week, the temperature never rose above 40°, the wind being about S.S.W.; from which quarter, during both winters, we have invariably felt the greatest cold. I therefore imagine that in the interior the land must be very lofty, as when the wind veers to the north, which is directly off the Polar Sea, the glass rises, showing the highest temperature when it is easterly. These low temperatures have caused much moisture between decks, and, from not being able to allow a sufficiency of firing to counteract the effect of the damp atmosphere, it has been materially felt by the crew. The sick list at one period consequently increased to 19,—five being cases of scurvy, and the same of dropsy; but now happily reduced to 10, and the surgeon's report, upon the survey of their crew to-day, as to their general state and condition, is as favourable as I could, under all circumstances, have anticipated. During the last month we have been employed in gravelling a distance of 800 yards towards the sea-ice, with the hope of its weakening it, in the event of our being able to move when the season for navigation arrives. Upon the 3rd, told the men off that where to proceed to England next month *via* the Mackenzie and Baffin's Bay. They appeared extremely well satisfied with the arrangement, as I explained to them my object was to send home all who had suffered the most from the severity of the climate, and to

whom another year might prove exceedingly trying, as well as to retain the most effective men in the event of being detained another winter. On the 15th the travellers went upon full allowance of provisions, which I have little doubt will, before they are required to start, get them in good condition.

21st.—The weather has been beautiful during the last week; the temperature, which until the 16th continued almost daily to fall to -56° , on the 17th rose to -27° , the following day to -14° , and on the 19th to $+3^{\circ}$, which sudden and delightful change, after the excessive cold of the last three months, is most grateful. The invalids are rapidly improving, the majority taking a daily airing of from two to three hours. The temperature at noon to-day, exposed to the sun, rose to $+40^{\circ}$, so that the extreme severity of the winter is over; in fact, to the present time, April 5th, the temperature daily mounts in the shade above zero, which, according to past experience, is exceedingly mild, and may be considered indicative of an early break up of the ice. God grant such may be the case! On the 15th it is my intention to start the parties destined to make their way to England, and, from our good sanitary condition, I feel but little doubt all will safely arrive. A fatigue party, under the command of Mr. Court, second master, will accompany Lieutenant Haswell for a few days, while John Calder, captain of the fore-castle, a trustworthy and zealous petty officer, will proceed with Lieutenant Cresswell as far as the Princess Royal Islands, and from the depôt there return with as many cases of potatoes and as much chocolate as can be brought on the sledge, which extra supply will give an ample allowance of those excellent articles, in the event of being detained here during the ensuing winter. To this period we have not lost an individual of our crew, either by accident or disease; the officers particularly have enjoyed an immunity from sickness which is surprising, with the exception of Mr. Sainsbury, mate, who, since the winter of 1850, has suffered from a pulmonary complaint that has entirely prevented his participating in the arduous duties of the travelling parties, or in the more exciting but not less laborious occupation of hunting over this rugged and severe country, and Mr. Paine, clerk in charge, who had been a great invalid from rheumatism until this last winter, when he has made a most rapid and wonderful recovery, and at present is in the enjoyment of more robust health than when he quitted England. I can attribute our excellent salutary state to the causes previously alluded to in this narrative, in conjunction with the bountiful supply of game which a merciful Providence has aided us with, and has so materially added to our otherwise scanty rations, as well as the excellence of all species of our provisions, which are certainly of the best description I ever met with, more particularly the superior quality of the lime-juice, which, as an antiscorbutic has proved most inestimable, with the preserved meats supplied by Messrs. Gamble, which, for weight, exemption from bone, and excellence, rank in the very highest scale; and that invaluable vegetable, the preserved potato, manufactured by Edwards. Sir, I have nothing more to add to this narrative, except to state, that I forward a list of game killed, and a monthly mean of the meteorological journal, which has been registered every alternate hour since leaving England by the respective officers of the watches, and carefully arranged and tabulated by Mr. Court (second

master), which complete Tables, I hope, with other interesting observations; to be enabled to carry safely home in the ship.

And, having particularized the officers in the various services they have been employed upon, I cannot conclude without expressing the extreme satisfaction that the crew have given me upon all occasions, when, in the perilous passage of the Polar Sea, activity, energy, and arduous duty were required, as well as during this long period of inactivity; they have been characterized by cheerfulness, propriety, and good conduct, which fully entitle them to the most favourable consideration of their Lordships.

I have the honour to be, Sir,

Your most obedient humble Servant,

ROBERT M'CLURE, Commander.

Bay of Mercy, Baring's Island, April 5, 1853.
Lat. $74^{\circ} 6' 30''$ N.; Long. $118^{\circ} 15' 0''$ W.

TABLE,

Showing the Mean Height of Barometer, with the Temperature of the Air on board Her Majesty's ship *Investigator*, from August, 1850, to March, 1853 :

Year and Month.	Barometer.			Temperature of Air.			Mean force of wind.
	Maxi- mum.	Mini- mum.	Mean.	Maxi- mum.	Mini- mum.	Mean.	
1850.							
August ..	30·060	29·390	29·751	+50	+27	+36·5	3·5
September ..	·650	·470	·709	+46	— 1	+20·2	3·6
October ..	·180	·380	·861	+24	—23	+ 0·2	2·0
November ..	·270	·160	·739	+ 7	—32	—10·2	3·1
December ..	·560	·480	·978	— 4	—40	—23·4	2·5
1851.							
January ..	·570	·400	·885	—15	—51	—32·5	
February ..	·630	·030	·958	— 9	—51	—37·7	
March ..	·720	·338	·946	— 5	—51	—28·8	
April ..	·610	·410	30·037	+38	—32	— 4·8	3·1
May ..	·600	·560	·023	+47	— 5	+18·9	2·2
June ..	·150	·470	29·837	+53	+27	+36·1	3·5
July ..	·090	·450	·756	+52	+32	+37·5	3·0
August ..	·400	·390	·865	+52	+21	+37·6	2·8
September ..	·270	·450	·876	+43	+ 1	+24·6	3·1
October ..	·200	·300	·877	+26	—22	+ 3·3	1·9
November ..	·750	·630	30·097	+10	—40	—15·2	1·8
December ..	·810	·490	·046	+11	—44	—20·0	3·5
1852.							
January ..	·600	·280	29·841	+ 8	—51	—27·3	3·4
February ..	31·000	·070	·777	— 1	—47	—25·8	3·1
March ..	31·000	·410	30·082	+ 5	—52	—28·4	2·0
April ..	30·430	·520	·164	+31	—38	— 1·4	2·5
May ..	·250	·600	29·987	+37	—25	+10·2	2·6
June ..	·100	·430	·758	+51	+11	+31·5	3·1
July ..	·000	·370	·749	+52	+30	+36·7	2·9
August ..	·170	·400	·816	+52	+19	+33·2	2·9
September ..	·100	·070	·785	+38	— 4	+20·1	3·6
October ..	·300	·440	·986	+16	—33	— 5·6	2·2
November ..	·680	·460	·978	+ 9	—43	—16·5	3·1
December ..	·670	28·970	·944	— 4	—48	—26·1	3·7
1853.							
January ..	30·120	29·180	29·748	—16	—65	—43·87	4·05
February ..	·580	·400	30·058	—13	—57	—38·50	2·50
March ..	·720	·540	·048	+17	—58	—25·4	2·30

YEARLY ABSTRACT.

1850.				1852.			
Barometer.				Barometer.			
Maximum	..	..	30·650	Maximum	..	..	31·000
Minimum	..	..	29·160	Minimum	..	..	28·970
Mean	..	..	29·828	Mean	..	..	29·906
Air.				Air.			
Maximum	..	..	+5	Maximum	..	..	+52
Minimum	..	..	-40	Minimum	..	..	-52
Mean	..	..	4·66	Mean	..	..	+0·05
1851.				1853.			
Barometer.				Barometer.			
Maximum	..	..	30·750	Maximum	..	..	30·72
Minimum	..	..	29·030	Minimum	..	..	29·180
Mean	..	..	29·934	Mean	..	..	29·960
Air.				Air.			
Maximum	..	..	+52·0	Maximum	..	..	+17
Minimum	..	..	-51·0	Minimum	..	..	-65
Mean	..	..	+1·58	Mean	..	..	-35·92

ROBERT M'CLURE, Commander.

BETTS'S FAMILY ATLAS, OF GENERAL AND PHYSICAL GEOGRAPHY,

INCLUDING A COPIOUS INDEX OF NEARLY FIFTY-FIVE THOUSAND NAMES.

*Elegantly but substantially Half bound in Turkey Morocco, price
Three Guineas.*

The PRESIDENT of the ROYAL GEOGRAPHICAL SOCIETY, in his annual address to the members, in speaking of this ATLAS, says:—"Mr. BETTS has published an ATLAS containing some NEW FEATURES, and rendered extremely valuable by a most copious Index comprising nearly 55,000 names of places. In addition to the latitudes and longitudes usually given, there is an arrangement, by reference to which, the situation of any required place can be easily learned, &c., &c. Several entirely new maps of India, Canada, Polynesia, &c., are also introduced."

The great advantage of the mode of reference alluded to in the foregoing paragraph, and which is peculiar to this Index, can only be fully appreciated by those who have frequent occasion to consult an Atlas. By means of it, the eye is almost instantaneously directed to the point of the map where the name appears, and the whole object is usually accomplished in less time than is necessarily expended in ascertaining the projectional proportions of a map, preparatory to reference on the old system.

In the present edition of the Atlas, a large number of new and highly important maps have been introduced (making in all SIXTY-FOUR), and the whole work has undergone a thorough and careful revision. The Maps of ENGLAND, WALES, SCOTLAND, and IRELAND, are on an unusually large scale, and extraordinary care has been exercised in order to exhibit the various lines of Railroad with minuteness and accuracy: the Turnpike and principal Cross-roads, Mountains, Rivers, Canals, &c., are also carefully delineated; and some idea of the elaborate character of the work may be inferred from the fact, that the Map of England and Wales alone contains nearly 9,000 names.

The Maps of the British Colonies are also on a large scale; and a continuous care will be maintained to introduce all new discoveries and settlements as they may occur; and the proprietor feels confident that no work of the kind, either as respects price or quality, will be found more deserving of public favour.

BETTS'S GEOLOGICAL MAP OF ENGLAND AND WALES,

INCLUDING SCOTLAND AS FAR NORTH AS EDINBURGH, AND A
PORTION OF IRELAND.

This beautiful Map has been compiled with great care, and is accompanied by a Treatise written expressly as a companion to it, by G. F. RICHARDSON, F.G.S., of the BRITISH MUSEUM. It is illustrated by nearly one hundred cuts of the most remarkable fossils, &c., found in the various strata, and is intended to afford assistance to those who have not long studied this interesting science.

Size of the Map, 3 ft. 5 in. by 2 ft. 8 in. Price, mounted on cloth in a cover suitable for the library table, 28s.; or on a Mahogany ledge and roller, and varnished, 31s. 6d.

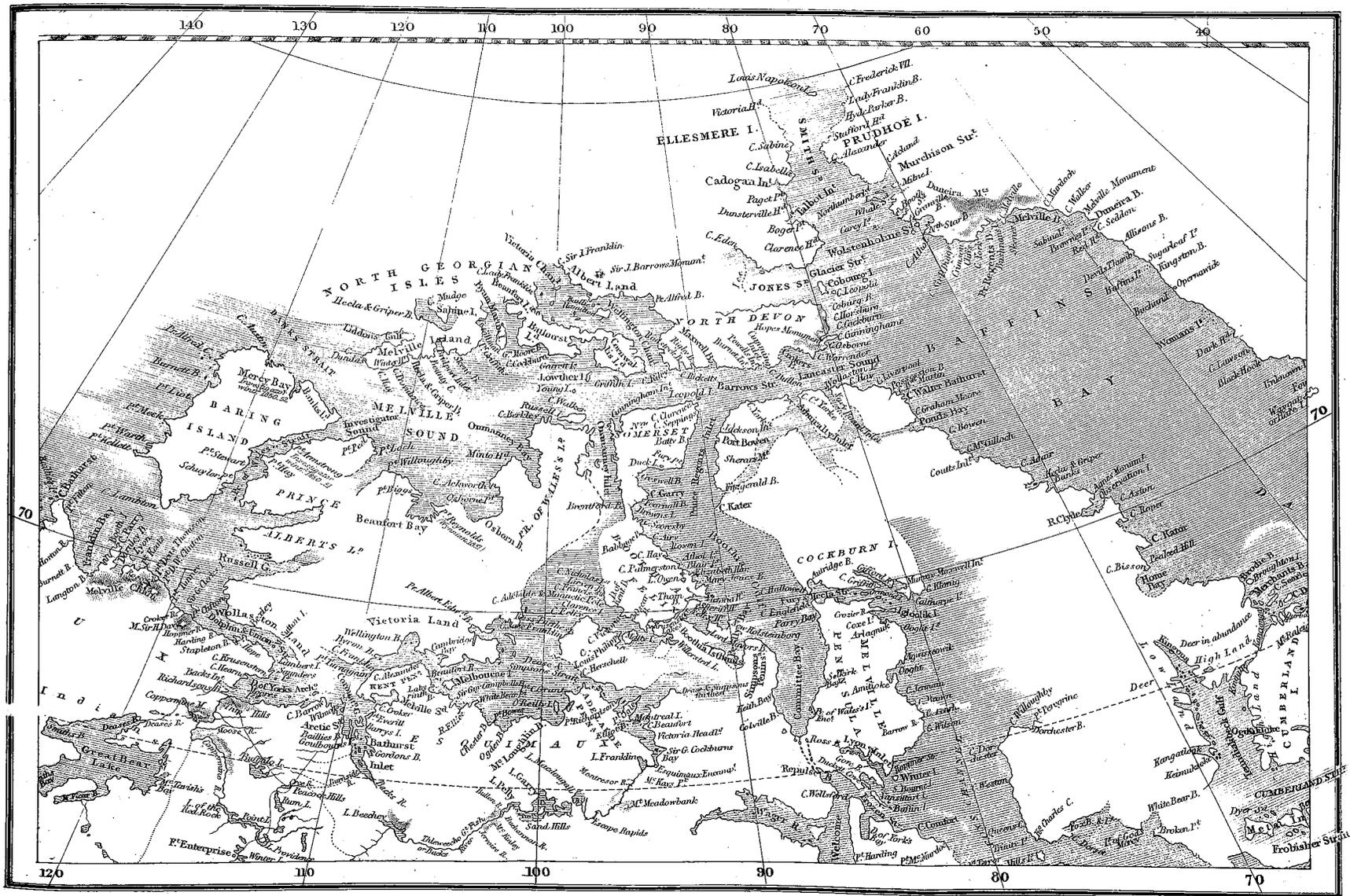
RUSSIA, TURKEY, AND PERSIA.

Just published, price, coloured, Ninepence,

A MAP, embracing the greater part of Turkey in Europe and Asia, the Black Sea, with the South of Russia, Circassia, and part of Persia.

Also, price Ninepence, coloured,

A beautiful MAP of TURKEY in EUROPE, divided into its various provinces, and well adapted for reference with respect to the present hostilities.



140

130

120

110

100

90

80

70

60

50

40

70

70

70

120

110

100

90

80

70

ELLESMERE I.

PRUDHOE I.

NORTH GEORGIAN ISLES

NORTH DEVON

BARING ISLAND

MELVILLE SOUND

PRINCE ALBERT I.

COCKBURN I.

High Island

White Bear I.

Broken I.

Frobisher Strait

BETTS'S

NEW MAP OF ENGLAND AND WALES.

*Engraved upon Steel, and measuring
2 ft. 6 in. by 2 ft. 1 in.*

This elaborate and beautiful Map has been compiled with extraordinary care and labour; the amount of population, and the annual value of real property, in each place, being the standard on which the compilation has been based; both of which have been extracted from the **PARLIAMENTARY RETURNS**. It contains the names of no fewer than 8,900 Towns, Villages, &c.; and the various lines of Railroad, the Turnpike and principal Cross Roads, navigable Rivers, Canals, &c., have been laid down with great care and clearness.

Mounted on cloth, in case . . . 5s.
Ditto, on black ledge, roller,
and varnished 9s.

BETTS'S

NEW MAP OF IRELAND.

*Of the same Size and Price as the above
Map of England.*

This is an accurate reduction of the splendid Map recently engraved under the superintendence of the **RAILWAY COMMISSIONERS OF IRELAND**. The matter has been compiled from the **PARLIAMENTARY RETURNS**, on the same principle, and with the same care, as the preceding Map of England, so that the publisher can with confidence recommend it as the best Map of Ireland, of its size, that has hitherto appeared.

BETTS'S

TOURIST'S MAP OF SCOTLAND.

*Of the same Size and Price as the above
Map of England.*

BETTS'S

**NEW RAILWAY & COMMERCIAL
MAP OF ENGLAND & WALES.**

*Engraved upon Steel, and measuring
3 ft. by 2 ft. 6 in.*

This beautiful Map, from its remarkable clearness, is particularly adapted to the use of the **COMMERCIAL TRA-**

VELLER and **TOURIST**, as well as from its embracing all the different lines of Railroad, the Turnpike, and principal Cross Roads, navigable Rivers, Canals, &c.

Mounted on cloth, in case . 7s. 0d.
Ditto, black ledge, roller,
and varnished 10 6
Ditto, mahogany, ditto 13 0

BETTS'S

NEW MAPS OF INDIA,

*Size 2 ft. 5 in. by 2 ft. 2 in. Price, on
cloth, in case, 6s. 6d.; on roller and
varnished, 10s. 6d.*

Including Birmah, the Punjaub, and the greater part of Affghanistan and Beloochistan. Compiled from the latest authorities, and showing the projected lines of Railroad.

BETTS'S

INTERROGATORY MAPS.

*Each accompanied by a Book of Exercises;
price, full coloured, including the Book,
1s. 6d.; on cloth, in case, 2s. 6d.; on
roller, and varnished, 3s. 6d.: size,
2 ft. 2 in. by 1 ft. 11 in.*

These Maps offer a novel, and most valuable method of communicating Geographical instruction; which needs only to be generally known, to be appreciated. The distinguishing characteristic of the Maps is, that they have no names on them; numbers being affixed to the principal towns, &c., as well as to the more important physical features: these numbers correspond with numbers attached to the Exercises which accompany the Maps, and by the arrangement, a system of practical instruction is developed, which, whilst it lightens the labour of the teacher, engages the attention, and insures the progress of the pupil.

The interrogatory Maps are equally adapted to the use of either public or private schools, and for home education they will be found invaluable. They are boldly, but not vulgarly engraved, and have the physical features clearly and carefully delineated.

Europe, Asia, England, Scotland and Ireland, are published; other Maps are in a forward state.

BETTS'S

**IMPROVED EDUCATIONAL
MAPS.**

Size, exclusive of margin, 2 ft. 2 in. by 1 ft. 11 in. Price, full coloured, 1s. 6d.; on cloth, in case, 2s. 6d.; on roller, and varnished, 3s. 6d.

These Maps have been engraved expressly for the purpose indicated by their title. They are boldly, but beautifully executed upon steel; and the physical features are accurately as well as very distinctly marked. The names introduced are not so numerous as materially to interfere with the physical geography, and by a combination of arrangements, the comparative importance of towns is made strikingly apparent; and it will be seen that, by the plan adopted, more distinctness and effect are produced than will be found on many maps of much larger dimensions. It is also hoped that the low price at which the maps are offered to the public, will prove no small recommendation to them.

England, Scotland, Ireland, Europe, Asia, Palestine, the Eastern and Western Hemispheres are published; Africa and America are in a forward state.

BETTS'S

**LARGE EDUCATIONAL MAP
OF EUROPE.**

This Map has been constructed upon the same principle as the smaller series of EDUCATIONAL MAPS, by the same publisher, but is bolder in proportion to its increased size. The same arrangements for giving prominence to places in accordance with their importance, and

for rendering the physical features striking and effective, are here carried out; and notwithstanding the superiority of the map, the price is such as should render it available for every village school.

Size, 2 ft. 2 in. by 3 ft. 3 in. Price, mounted on cloth, with roller, 10s. 6d.; ditto, varnished, 12s.

BETTS'S

IMPROVED OUTLINE MAPS.

Size, 2 ft. 2 in. by 1 ft. 11 in.

These Maps have the physical features very distinctly marked, and the situations of the principal towns are shown by signs, indicating their comparative importance. Price 9d. each.

England, Scotland, Ireland, Europe, Asia, the Eastern and Western Hemispheres, are published; Africa and America are in a forward state.

BETTS'S

GEOGRAPHICAL SLATES.

Each slate has TWO OUTLINE MAPS permanently engraved upon it, and is accompanied by two corresponding KEY MAPS mounted on a mill-board; size of slate 13 in. by 11.

Price, with Key, 2s.

They may be had as follows:

ENGLAND AND THE WORLD.
EUROPE AND ASIA.
UNITED STATES AND ENGLAND.
SCOTLAND AND IRELAND.
AFRICA AND AMERICA.
UNITED STATES AND THE WORLD.

